



KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

Ordinance 19229

Proposed No. 2021-0044.1

Sponsors Lambert

1 AN ORDINANCE approving the City of North Bend

2 Water System Plan of 2020.

3 STATEMENT OF FACTS:

4 1. King County has adopted K.C.C. chapter 13.24, which requires

5 approval of comprehensive plans for water utilities that distribute or obtain

6 water in unincorporated King County as a prerequisite for operating in

7 unincorporated King County, receiving approval for annexation proposals,

8 being granted right-of-way franchises, and being given approval for right-

9 of-way construction permits. K.C.C. 13.24.060 prescribes the

10 requirements for approval of such plans, including consistency with state

11 and local planning requirements.

12 2. The Revised Code of Washington 70A.100.050 requires that general

13 comprehensive plans for water districts within critical water supply service areas

14 be submitted to, and approved by, the legislative authority of the county within

15 which all or a portion of the water utility is located.

16 3. The city of North Bend's water service area is within King County and

17 the city has adopted a comprehensive water system plan ("the plan"). The

18 city's previous water system plan was prepared in 2010 and approved in

19 2011.

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20 4. King County has adopted a comprehensive plan that includes water
21 supply policies in its provisions for facilities and services (policies F-101
22 through F-254) that call for consistency with other adopted plans, support
23 for regional water supply planning, pursuit of reclaimed water, water
24 conservation and protection of water resources.

25 5. K.C.C. chapter 13.24 requires the utilities technical review committee
26 to review and make a recommendation to the King County executive and
27 council on the plan and the requirements under K.C.C. chapter 13.24 and
28 consistency with the King County Comprehensive Plan. The utilities
29 technical review committee has reviewed the planning data and city's
30 operations and has found:

31 a. The plan uses population and employment forecasts developed by the
32 Puget Sound Regional Council for the city's service area;

33 b. The city's service area includes the City of North Bend and
34 unincorporated King County;

35 c. The capital facility plan is adequate to meet anticipated facility and
36 service needs;

37 d. The plan is consistent with applicable Washington state water quality
38 laws; and

39 e. The plan is consistent with other pertinent county adopted plans and
40 policies.

41 6. The Washington state Department of Health approval is pending upon
42 King County's approval of the plan.

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43 7. Under the state Environmental Policy Act, the city issued a
44 determination of nonsignificance for the draft plan on March 27, 2020.
45 There were no appeals. The city issued an addendum on November 18,
46 2020, to address changes since the March draft.

47 8. The city's operations and facilities meet multiple existing statutory,
48 administrative and planning standards. As the city's operations, facilities
49 and planning meet the requirements of the King County Code and are
50 consistent with the King County Comprehensive Plan, the utilities
51 technical review committee has recommended approval of the plan.

52 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

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53 SECTION 1. The City of North Bend Water System Plan, Attachment A to this
54 ordinance, is hereby approved as a water system plan.
55

Ordinance 19229 was introduced on 1/12/2021 and passed by the Metropolitan King County Council on 1/26/2021, by the following vote:

Yes: 7 - Ms. Balducci, Mr. Dunn, Ms. Kohl-Welles, Ms. Lambert, Mr. McDermott, Mr. von Reichbauer and Mr. Zahilay
No: 2 - Mr. Dembowski and Mr. Upthegrove

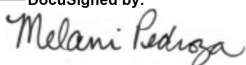
KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

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7E1C273CE9994B6...


Claudia Balducci, Chair

ATTEST:

DocuSigned by:

8DE1BB375AD3422...

Melani Pedroza, Clerk of the Council

APPROVED this ____ day of 2/12/2021, ____.

DocuSigned by:

4FBCAB8196AE4C6...

Dow Constantine, County Executive

Attachments: A. City of North Bend Water System Plan



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Ordinance 19229

CITY OF NORTH BEND

Water System Plan

G&O #19473
October 2020



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Ordinance 19229

CITY OF NORTH BEND

Water System Plan

G&O #19473
October 2020



CITY OF NORTH BEND

KING COUNTY

WASHINGTON



WATER SYSTEM PLAN



G&O #19473
OCTOBER 2020



Gray & Osborne, Inc.
CONSULTING ENGINEERS

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EXECUTIVE SUMMARY

The City of North Bend Water System Plan provides a planning strategy for the City's water utility over 10- and 20-year planning horizons. The plan has been prepared consistent with Department of Health standards as specified in the Washington Administrative Code (WAC) Chapter 246-290. The plan represents a commitment by the City to pursue and implement the Plan's recommendations and capital improvements.

Chapters 1 and 2 of this plan provide background data, including a description of existing facilities, service area, service area policies, and projections of population and water use. Chapter 3 presents a description of system design and water quality standards, as well as an analysis of water quality. This chapter also presents a source and storage analysis and concludes with a system-wide capacity analysis. Chapter 4 contains a distribution system analysis, including a hydraulic modeling summary, which identifies and informs necessary distribution system improvements. Chapter 5 contains a water use efficiency program which details conservation and efficient water use goals and measures. Chapter 6 discusses the system operation and maintenance procedures. Chapter 7 presents recommended capital improvements and outlines an implementation schedule. Chapter 8 examines past water system finances and forecasts a budget based on historical data, growth projections, and recommended capital improvements. The eight chapters of this plan are followed by appendices which contain cited and related documentation.

The City has two water sources, Mount Si Springs and the Centennial Well. Each source has its own withdrawal limitations. Mount Si Springs has a minimum bypass requirement stipulating that 3 cubic feet per second of flow must pass over the weir and into the river. The Centennial Well hydraulically influences the Snoqualmie River and, during periods of low instream Snoqualmie River flow, mitigation water must be supplied as a condition of the water right. At present, the City's sole functioning mitigation source is Hobo Springs. Water is conveyed from Hobo Springs to Boxley Creek, a Snoqualmie River tributary. The City also has an emergency intertie with the neighboring Sallal Water Association.

The City operates three pressure zones, the 594, 710, and 780 Zones. Both sources are located in the 594 Zone. The City operates three storage reservoirs. The Nintendo and I-90 Reservoirs are in the 594 Zone while the Forster Woods Reservoir is located in the 710 Zone. The 710 Booster Pump Station serves the 710 Zone and the 780 Booster Pump Station serves the 780 Zone.

The City's water retail service area population is approximately 6,625 people and the water system serves a total of 2,610 connections. The City anticipates growth of approximately 2.5 percent over the 10-year planning period and has adequate water rights, source, and storage capacity to meet the water demand projected over the next 10 years. However, the City is at or near its mitigation capacity limits. Mitigation capacity dictates how much water can be withdrawn from the Centennial Well. Unfortunately, during the dry summer months high overall water demand coincides with

a severely limited withdrawal capacity from Mount Si Springs. As a result, the City must depend on the Centennial Well for the majority of its water production. This often coincides with low instream flows in the Snoqualmie River which leads to increased mitigation requirements.

Under present peak summer demand, if a drier summer were to occur, the flows at Hobo Springs would be at or just below those required to properly mitigate water demand. The City must therefore increase its mitigation capacity by implementing two measures.

1. Enact water conservation policies that curb peak season water use, allowing the City to manage demands during dry years and dry seasons. The ability to reduce peak uses would allow for a reduction in water production and the corresponding mitigation demands and would allow the City to keep peak water production within the available mitigation flow.
2. Obtain additional sources for mitigation water in order to provide redundancy and increase overall mitigation capacity. A second or third source of mitigation water would ensure that the City can mitigate Centennial Well use even during periods of low flow in Hobo Springs. This plan is predicated on the City reaching an agreement with Sallal Water Association to obtain additional mitigation water within the next 2 years.

The City is acutely aware of the need to increase the supply and curb the demand of mitigation water and must do so soon. The City plans take action through the following four measures:

1. Continue to improve system efficiency;
2. Control and lower Distribution System Leakage (DSL);
3. Use the recently enacted Water Shortage Plan to decrease the magnitude of maximum day water demand during periods of low mitigation; and
4. Increase and diversity mitigation sources and capacity.

As of 2019, the City's Distribution System Leakage (DSL) was 25.9 percent with a 3-year rolling average of 22.4 percent, triggering the need for a Water Loss Control Action Plan. This plan is detailed in Chapter 5 along with consumption and production reduction goals which could save the City an estimated 332 million gallons of water between 2021 and 2030.

The Water System Plan contains a list of projects for the City's 10-year capital improvement plan for the water system. These projects include source improvements, increasing mitigation capacity, upgrading SCADA systems, replacing meters, recoating and upgrading reservoirs, and replacing water mains throughout the system to provide increased reliability, ensure good water quality, lower DSL, and the increase fire flow capabilities to the system. Table E-1 summarizes the recommended capital improvement projects which fall within the Plan's 10-year planning horizon.

TABLE E-1
Capital Improvement Plan⁽¹⁾

Project Number	Project Description	Year to be Completed	Estimated Cost⁽²⁾
MS-1	Meter Replacement Program	2019-2033	\$35,000/year
AC-1	AC Main Replacement	2028 & 2030	\$600,000/year
MT-1	Golf Course Well Improvements	2020	\$371,000
SO-1	Centennial Well Variable Frequency Drive	2021	\$85,000
SO-3	Mt Si Spring Air Gap Study	2021	\$30,000
MT-2	Hobo Springs Improvement	2021	\$302,000
D-13	Picket Avenue Northeast	2021	\$290,000
MS-2	Source and Storage SCADA and PLC Upgrades	2022	\$178,000
SO-4	Mt Si Spring Air Gap Project	2023	\$500,000
D-18	Middle Fork River Crossing	2023	\$442,000
SO-2	Centennial Well Pump Replacement	2024	\$229,000
MT-4	Sallal Mitigation Intertie	2025	\$312,000
MS-3	Booster Pump Station SCADA and PLC Upgrades	2025	\$51,000
D-21	Avenue Southeast and Southeast 92 nd Street	2025 & 2026	\$1,483,000
D-19	South Fork River Crossing	2026	\$558,000
D-1	Main Avenue North and West 4 th Avenue	2027	\$83,000
D-6	End of East 2 nd Street	2027	\$204,000
ST-1	0.5 MG I-90 Reservoir Recoating and Improvements	2028	\$831,000
D-3	Main Avenue North and Sydney Avenue North	2028	\$268,000
ST-2	0.75 MG Forster Woods Reservoir Recoating and Improvements	2029	\$979,000
D-2	North Bend Way and West 2 nd Avenue	2030	\$238,000
D-8	SE 136 th Street and 424 th Avenue SE	2030	\$146,000

(1) Capital improvement costs from Table 7-2.

(2) All cost estimates are shown in 2020 dollars. ENR CCI= 12,117 (February 2020).

The City will continue to fund capital projects and meet its financial commitments through revenue derived from water sales and connection charges while also exploring alternative funding options. The City's water fund is projected to be able to meet the operation and maintenance, debt service, and capital project commitments through 2030 with a 6 percent rate increase in 2021, 2024, and 2027. Full financial projections are detailed in Chapter 8. The fund will finish all but 2 of the next 10 years with a surplus of at least \$900,000, culminating in a \$1,526,035 surplus in 2030.

CHAPTER 1

DESCRIPTION OF THE WATER SYSTEM

WATER SYSTEM OWNERSHIP AND MANAGEMENT

The City of North Bend (City) owns and operates a municipal water system that serves the City as well as portion of the surrounding rural communities. These communities are located on the valley floor between Rattlesnake Ridge to the south and Mount Si to the north. The Washington State Department of Health (DOH) water system identification number is **60100A**. A copy of the Water Facilities Inventory Form (WFI) is included as Appendix B. The City is governed by an elected Mayor and City Council. The City's current mailing address is:

City of North Bend
P.O. Box 896
920 SE Cedar Falls Way
North Bend, Washington 98045

Figure 1-1 shows the City and the surrounding area.

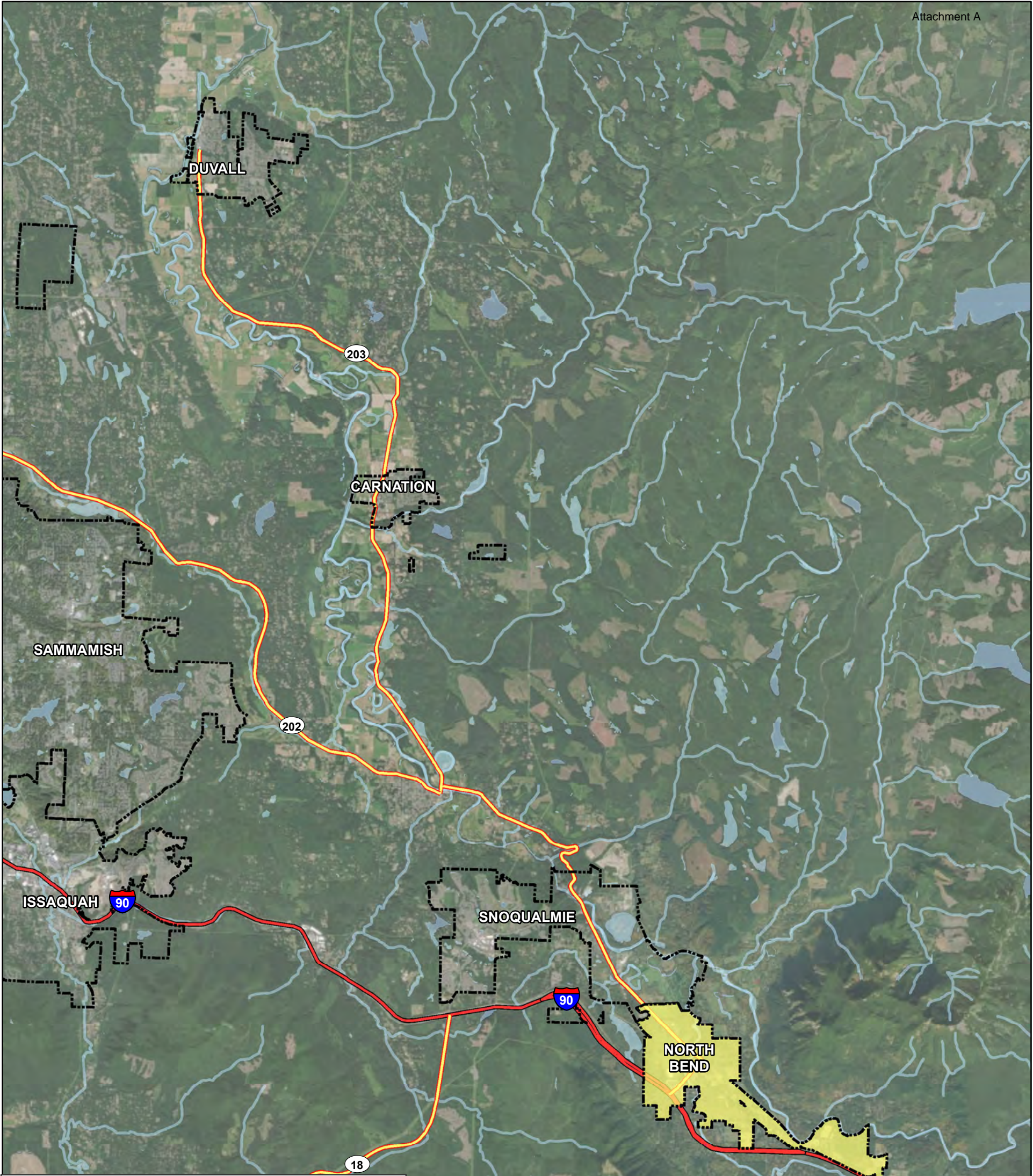
SYSTEM BACKGROUND

HISTORY OF WATER SYSTEM DEVELOPMENT

The following timeline describes the history of the major highlights and improvements made within the North Bend Water Service Area.

- **Late 1940s through the early 1950s:** The City's first public water system was constructed at Clough Creek watershed near Rattlesnake Mountain. The system consisted of a small dam, with a spillway elevation of 540 feet above mean sea level, and a reservoir for storage. The dam was concrete with approximate dimensions of 55-feet long and 12-feet high at the outside face. The reservoir was contained by the rock walls of a small ravine behind the dam. The reservoir was 120-feet long and varied in width from 25 feet at the dam to a few feet at the upstream end. The estimated storage capacity was 225,000 gallons.
- **1964 – 1965:** Major floods and ensuing landslides deposited large amounts of materials behind the Clough Creek dam and impacted the ability of the reservoir to provide the City with water. The City was forced to enact emergency measures to continue the supply of water to the area. The intake had to be relocated 1,600 feet upstream from the existing facilities.

- **1966:** The City prepared its first Comprehensive Water System Development Plan. This plan discussed significant improvements to the water system of North Bend. The purpose of these improvements, implemented between 1967 and 1968, was to obtain a more reliable and higher quality water source.
- **1967 – 1968:** During this period, the springs on the west side of Mount Si were developed. This project included the construction of a 1,500 gpm source pump station, a transmission main, and a 0.5-MG storage tank located at Clough Creek. Initially, two pumps were located at the pump station. The Clough Creek intake facilities were maintained as an emergency source.
- **1974:** Transmission lines from the Clough Creek Reservoir were relocated during the construction of Interstate 90.
- **1980:** A third pump was installed at the Mount Si pump station. The Clough Creek intake facilities were abandoned. Abandoning the Clough Creek intake facilities was a condition of a grant acceptance agreement from the Department of Social and Health Services (DSHS) for water system improvements.
- **1986:** An infiltration gallery was built to protect the Springs from surface water intrusion.
- **1991:** A 2.0-MG reservoir was constructed to meet the additional demands of development near the North Bend I-90 interchange. The reservoir was built at the 594 HGL in the western portion of the City between I-90 and the Nintendo Distribution Center.
- **1993:** The addition of two pump stations created two new pressure zones at 710 and 780 feet. An additional 0.75-MG reservoir was also constructed to serve the new pressure zones.
- **1990s:** The City explored acquiring additional water rights to the North Bend aquifer in order to have an emergency supply and possibly support future development in the area.
- **1992:** The City submitted water right application G1-26617, with a priority date of June 16, 1992, for a permit to appropriate public groundwater.
- **1996:** The City began drilling new test wells for possible development and connection to the City's system.



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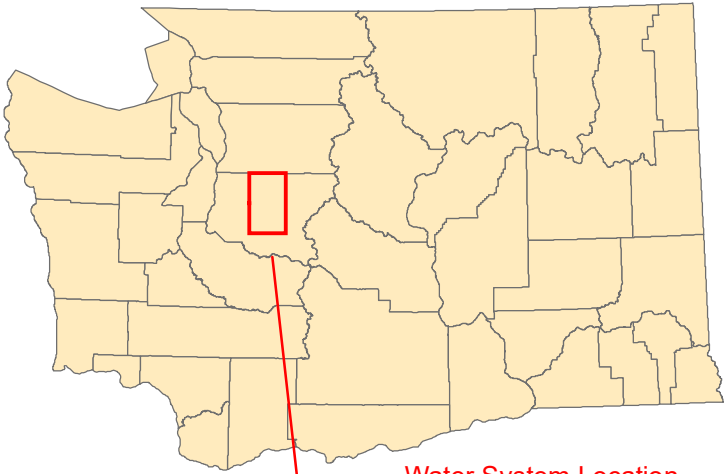


NORTH BEND CITY LIMITS

0 10,000 20,000 Feet



Vicinity



Water System Location

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

CITY OF NORTH BEND

WATER SYSTEM PLAN

Figure 1-1
Vicinity Map



- **1999:** During the development of the City's Comprehensive Water Plan, it was discovered that demand had led to withdrawals at Mount Si Spring in excess of the source's water right. The City voluntarily went into a development moratorium to curtail any additional requests for water other than those approvals vested before the moratorium's effective date.
- **2006:** The City constructed a disinfection CT pipe loop in order to comply with the need to disinfect water from the spring source to a CT of 6.
- **2008:** The City received a new water right permit (G1-26617(A)P) to appropriate groundwater from a new production well, the Centennial Well, located at the City's Public Works facility. This water right permit requires mitigation of the well's affects on the Snoqualmie River which is discussed in the following section.
- **2009:** The Centennial Well became operational and the development moratorium expired February 2009. At the same time, the City constructed the mitigation waterline from Hobo Springs to Boxley Creek. The project included connecting to an unused pipeline to allow for a future mitigation intertie with Sallal Water Association.
- **2017:** The City replaced 2 of the fixed-speed pumps at the Mount Si Springs source pump station with variable speed pumps in an effort to better utilize that water right during low-flow periods.
- **2018:** The City acquired the Cascade Golf Course and its associated water rights of 33 acre-feet per year with the intent to supplement Hobo Springs mitigation water.

CENTENNIAL WELL: WATER RIGHTS AND MITIGATION

Beginning in 1999, after it was found the City's demand was in excess of existing water rights, the City enacted a voluntary moratorium on new development. The City soon began working to obtain additional water rights in order to address this deficit of water availability. In 2008, the City obtained a new water right permit for a well on the Public Works shop site. The water right permit required mitigation for the groundwater withdrawal's effects on the Snoqualmie River flow, which were studied in detail as part of the water right acquisition process. Mitigation is only required when instream flow targets for the Snoqualmie River at any one of three USGS gauges are not met.

In 2008, the City drilled and started equipping the new production well, located on the City's Public Works Department property. The project included the new production well building and equipment, a treatment facility for chlorination, provisions for a potential

future intertie with the Sallal Water Association's (Sallal) system, and associated controls. The production well became operational in early 2009.

The required mitigation project involved conveying water from an existing intake structure at Hobo Springs to a new outfall at Boxley Creek. The Hobo Springs intake is in the Cedar River Municipal Watershed owned by Seattle Public Utilities and located approximately five miles southeast of North Bend. The Boxley Creek outfall is in the Snoqualmie River Watershed. The project also involved connecting the new mitigation pipeline to an existing waterline that will connect to Sallal's Well 2 in the future in order to provide a secondary source of mitigation water from Sallal in case insufficient water is available from Hobo Springs. In 2018 the City acquired the Cascade Golf Course water right. The City intends to submit a change application to allow the use of this water right as a mitigation source to supplement Hobo Springs and the future Sallal mitigation sources.

When the Centennial Well is in operation, a computer algorithm within the City's SCADA system determines how the Snoqualmie River is influenced by well pumping. If instream flows are not met, the City is required to mitigate and the same algorithm calculates how much mitigation water is required to offset these effects. The mitigation facilities convey the appropriate amount of water from the Hobo Springs to Boxley Creek and the water is purchased from Seattle Public Utilities. The City is working on an agreement with Sallal that would allow mitigation water to be purchased from Sallal. In the future the former Cascade Golf Course water will be used for mitigation as well when the Hobo Springs supply is not sufficient.

The Centennial Well was constructed with adequate capacity to provide water to Sallal Water Association, in anticipation of an agreement that is still being negotiated.

ADJACENT PURVEYORS

The City of North Bend's adjacent purveyors include the City of Snoqualmie to the northwest, the Sallal Water Association to the southeast and Alpine Water Association to the southwest. Figure 1-2 shows the location of the adjacent water purveyors in relation to the North Bend Service Area.

City of Snoqualmie

The City of Snoqualmie serves approximately 4,117 residential connections and approximately 11,700 people as of 2012. Its service area covers 2,208 acres. Since 2012, the City has and continues to experience very rapid growth due to new developments within the service area. The City of Snoqualmie's average daily consumption was 1.2 mgd in 2010 and was projected to increase to 1.9 mgd in 2032. The City currently uses three sources of supply, Canyon Springs and the North and South Wellfields. Canyon Springs consists of two springs that arise from the same aquifer. The springs are located approximately 5 miles northeast of the City near Ernie's Grove. The springs have

Legend

 CITY OF NORTH BEND

 PARCELS

ADJACENT PURVEYOR

SERVICE AREA

 ALPINE WATER

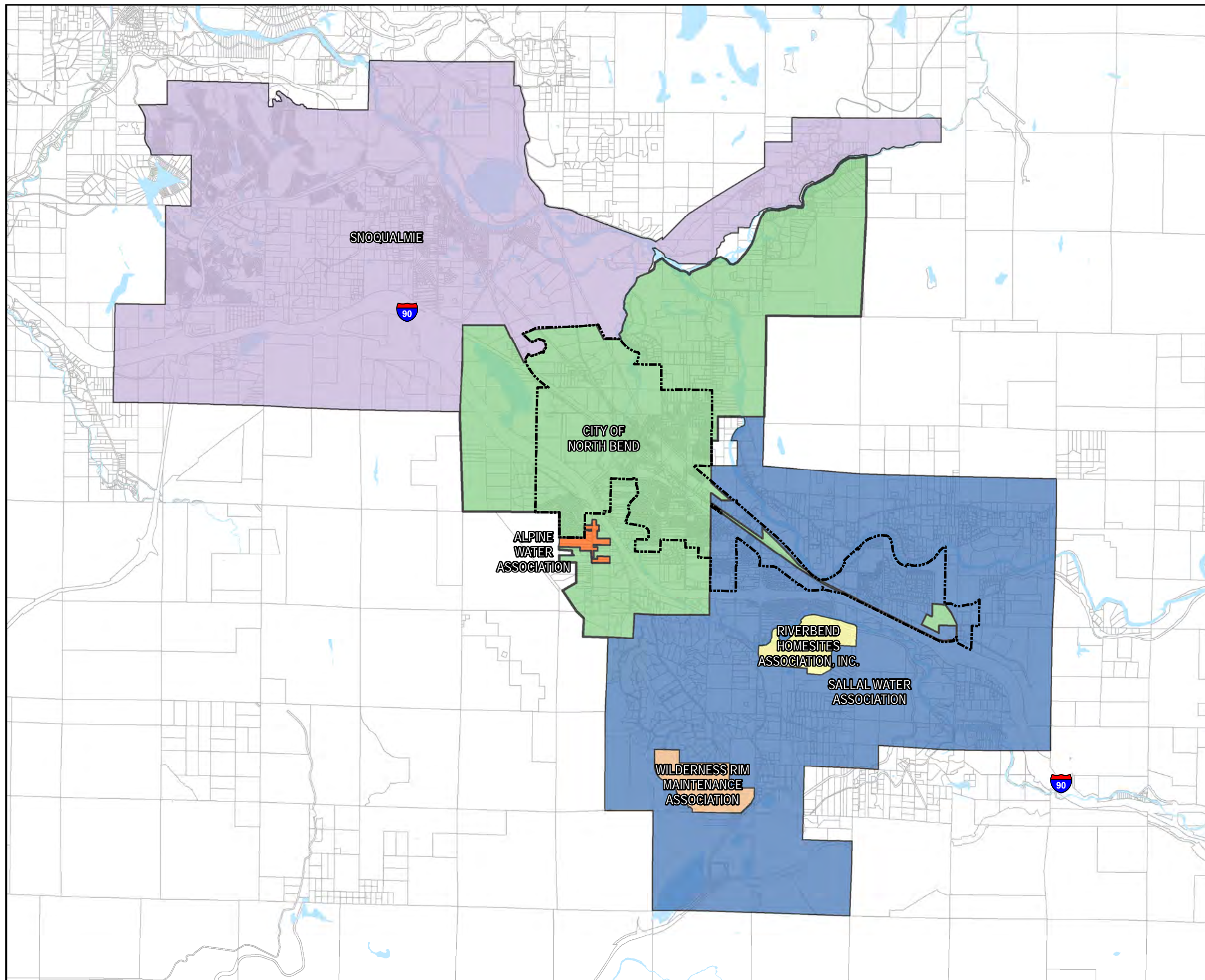
 CITY OF NORTH BEND RETAIL SERVICE AREA

 RIVERBEND HOMESITES ASSOCIATION, INC.

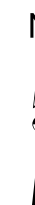
 SALLAL WATER

 CITY OF SNOQUALMIE

 WILDERNESS RIM MAINTENANCE ASSOCIATION



Source: King County & City of North Bend GIS Data; Aerial



0 2,500 5,000 10,000 Feet
1" = 5,000'

CITY OF NORTH BEND
WATER SYSTEM PLAN
FIGURE 1-2
WATER PURVEYOR SERVICE AREAS



an instantaneous water right of 898 gallons per minute (gpm). The South Wellfield is located near the high school and has an instantaneous withdrawal limit of 600 gpm. The North Wellfield is located north of the City of Snoqualmie and has an instantaneous withdrawal limit of 1,650 gpm. The City of Snoqualmie has 4.7 million gallons of storage in six reservoirs. In 2012, the City of Snoqualmie's distribution system consisted of approximately 64 miles of 4-inch to 20-inch water main. The City currently has no interties with any of the surrounding water service providers.

Sallal Water Association

Sallal Water Association was created in 1967 as a cooperative to secure safe water for the residents of this area. By the end of 2017, Sallal served 2,281 connections, including 636 single-family connections in the Wilderness Rim HOA. The Wilderness Rim Water System, is a small private cooperative system and wholesale customer located within Sallal's service area. Sallal operates four wells as its primary sources. Two of the wells are located in the southwest portion of the water service area near the Wilderness Rim Water System. The other two wells are located in the eastern section of the water service area. The water rights for these wells total 1,691 gpm. Sallal operates 10 reservoirs and has a total storage capacity of 1.5 million gallons. The Sallal Water Association has interties with Wilderness Rim, Riverbend (another independent water purveyor within Sallal's boundaries), and North Bend. The existing North Bend intertie only allows water to leave the Sallal water system since the hydraulic grade of the Sallal system is higher at this location. There is the potential for a future intertie between North Bend and Sallal located at the Centennial Well site. This intertie could allow for Sallal to purchase wholesale water from the City.

Alpine Water Association

The City provides water to a small Group A system called the Alpine Water Association in the southern portion of the Water Service Area. This Association serves 18 connections along Harmon Heights Road in the southwestern portion of the City's Water Service Area.

East King County Regional Water Association (EKCRWA)

The EKCRWA was formed in 1987 as a coalition of municipal water utilities, public water districts, and other water purveyors from the shores of Lake Washington to the Cascade Foothills within the East King County Critical Water Supply Service Area. The EKCRWA serves as the administrative organization for the East King County Coordinated Water System Plan (CWSP). The EKCRWA has applied for a groundwater right in the Snoqualmie Aquifer, application number G1-27384 with a priority date of January 19, 1994. The amount of water requested to be withdrawn per the application is 60 mgd. After further investigation, the EKCRWA decided to pursue a conjunctive use system that would discharge groundwater from wellfields in the upper valley to the Snoqualmie River and convey the water using the river to a location near Duvall in the

lower valley where the water could be withdrawn from the Snoqualmie River. A surface water right application for the Snoqualmie River source, S1-27877, was filed with a priority date of January 29, 1998. The City chose to join this group in order to receive water from this potential source and participate in representation provided by EKRWA.

INVENTORY OF EXISTING FACILITIES

Figure 1-3 provides a map of the North Bend Service Area showing the City's existing water system facilities.

SOURCES OF SUPPLY

The City obtains its public water supply from Mount Si Springs and the Centennial Well.

The intake facilities for the springs use subsurface piping to capture the spring flow before it discharges at the ground surface. The Middle Fork of the Snoqualmie River receives the excess spring discharge through ponds and channels. The collection system and water pump station are located within a level 6-acre parcel owned by the City at the base of Mount Si. The City owns an additional 82 acres of watershed that extends up the steep western slope of Mount Si.

The City's Centennial Well was installed in 2008 adjacent to the City's Public Works Shop. The well is housed in a building that contains pumping and disinfection facilities. The well has been operational since 2009.

Mount Si Springs Intake Facilities






The entire spring discharge is captured before it reaches the ground surface. The intake is an infiltration gallery which captures the spring water through 80 lineal feet of 14-inch diameter well screen. The captured water is conveyed through the well screen into a 54-inch diameter concrete inlet structure, from which an 18-inch diameter PVC water main conveys the total volume of water to a 48-inch concrete turn structure. The water is disinfected with chlorine and passes to the pump station.

The springs exhibit seasonal variability, with lower flows during the dry summer months. However, the springs have consistently produced excess water, meaning water always flows from the Spring to the Middle fork of the Snoqualmie. The water right for the spring stipulates that 3.0 cubic feet per second must bypass the point of diversion at all times. The City monitors the overflow rate of the springs and modifies production to ensure bypass requirements are met.

Mount Si Springs Pumping Facilities






The spring booster pump station for the 594 Zone is located at the intersection of SE 92nd Street and 436th Avenue SE near the Mount Si Spring. This pump station is an above-

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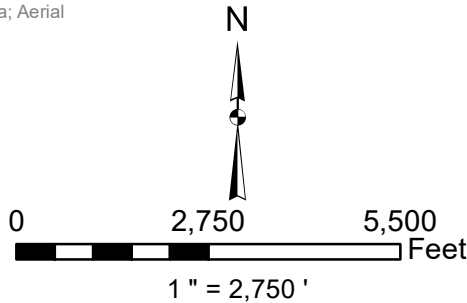
-  CENTENNIAL WELL
-  Mitigation Well
-  PRV
-  PUMP STATION
-  RESERVOIR

Water Main Diameter:

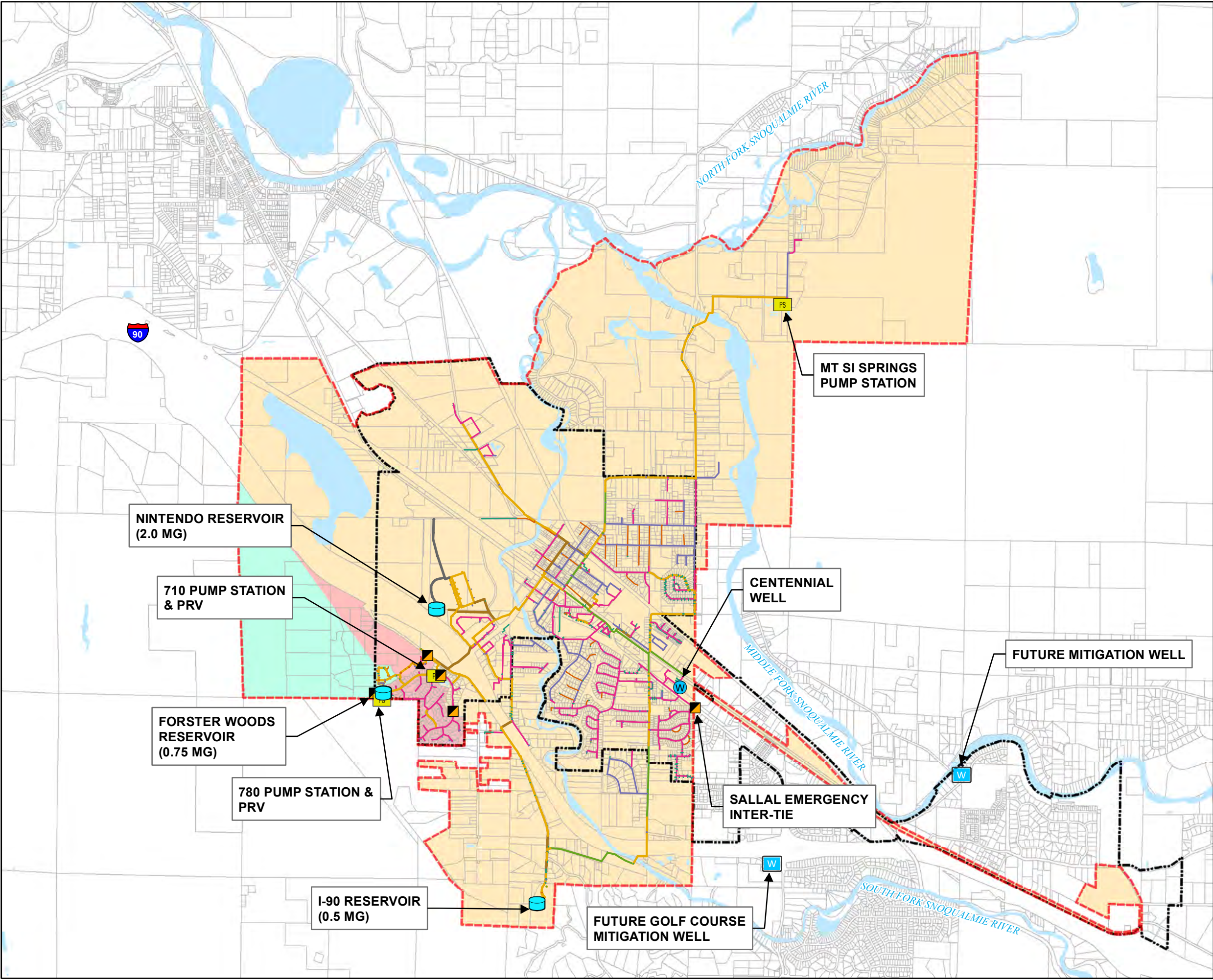
-  3" or less
-  4"
-  6"
-  8"
-  10"
-  12"
-  16"
-  20"

-  RETAIL SERVICE AREA
-  NORTH BEND CITY LIMITS
-  710 ZONE (710 FT HGL)
-  780 ZONE (780 FT HGL)
-  594 ZONE (594 FT HGL)

Source: King County &
City of North Bend GIS
Data; Aerial



CITY OF NORTH BEND
WATER SYSTEM PLAN
FIGURE 1-3
WATER BASE MAP



grade concrete block building with a shingled roof. The building consists of two rooms: one containing the three pumps, sanitary equipment and office; the other containing the chlorine gas equipment and supplies.

Spring water is gravity fed to the pump station clear well. The clear well is a rectangular concrete reservoir under the pump station floor that holds approximately 7,600 gallons of spring water. Three vertical turbine pumps sit above the clear well and supply water to the system. One pump is equipped with a soft start while the remaining two have variable frequency drives (VFDs). The pumps have a maximum pumping capacity of 2,000 gpm; however, downstream transmission capacity limits pumping from the clear well to approximately 1,500 gpm, as confirmed by the July 13, 2020 pump test. A flow meter inside the pump station measures the total amount of water pumped to the distribution system.

Mount Si Springs water is disinfected to a CT of 6 at the Mount Si Springs source. This is achieved via a 24-inch, 775-foot pipe loop between the chlorination point and the distribution system.

Centennial Well

The Centennial Well is located in the Public Works Shop complex at 1155 East North Bend Way. A well log for the well is included in Appendix E.

The well draws from the aquifer that underlies much of the Snoqualmie Valley in and around North Bend. The groundwater levels in the Snoqualmie Valley generally follow seasonal precipitation patterns, but long-term static water measurements in this area indicate a variation of only 10 feet, which does not interfere with operation of the well.

The well building is a CMU block building with a pump room and hypochlorite room. The well pump has a 250-hp motor with a soft start and a maximum capacity of 2,500 gpm, though the pump is typically run at a 1,100 gpm setpoint. The well's hypochlorite room contains a bulk storage container for sodium hypochlorite, a metering pump assembly, a chlorine analyzer, and a flow meter that registers the total flow of the well water to the City's system.

The well building also contains piping and space for a future intertie facility to provide water to Sallal. Such facilities would likely include a booster station and an intertie flow meter.

Water Rights

The City currently has a water right certificate allowing for the instantaneous use of up to 3.2 mgd (2,240 gpm) from the Mount Si Springs. The annual withdrawal rate is 336 acre-ft/year. The Report of Examination for the water right also stipulates that 3.0 cubic feet per second must bypass the point of diversion at all times.

The City received a water right permit in 2008, with a priority date of June 16, 1992, for a portion of its water right application G1-26617A, which was split from the City's original application G1-26617. This permit grants the City a maximum withdrawal rate of 2,646 gpm and a total annual withdrawal of 3,094 af/yr from a new production well at the City's Public Works facility.

In 2018, the City acquired the Cascade Golf Course water right, certificate number CG1-00142C. This water right allows for a maximum withdrawal rate of 120 gpm and total annual withdrawal of 33 af/yr with monthly allocations and can be found in Appendix E. The water right is currently approved for irrigation of the former golf course property. The City intends to submit a change application to allow the use of this water right as a mitigation source to supplement existing Hobo Springs and future Sallal mitigation sources.

The City still has a water right application on file for groundwater withdrawals for wells in the City for use as a supplemental water source for future customers, emergency use, or mitigation water. The application number is G1-26617B. The application requests the withdrawal of water at a rate of 1,614 gpm for municipal water and environmental quality supply. The City has also applied for additional water rights at the Mount Si Springs. These certificates and applications can be found in Appendix E.

TABLE 1-1

Water Rights

Source Number	Source Type	Pumping Capacity (gpm)	Certificate/ Permit/ Application Number ⁽¹⁾	Priority Date	Maximum Instantaneous Withdrawal		Maximum Annual Withdrawal	
					(gpm)	(mgd)	(acre ft)	(MG)
Certificate								
S01	Spring	2,000 ⁽²⁾	S1-00620C	3/15/65	2,250	3.25	336.0	109.5
	Mitigation Well	120	CG1-00142C ⁽³⁾	5/1/1997	120	0.17	33.0	10.7
Permit								
S03	Well	2,500	G1-26617(A)P	6/16/1992	2,646	3.81	3,094	1,008.2
Applications								
	Wells		G1-26617(B)	6/16/92	1,614			
	Spring ⁽⁴⁾		S1-28050	8/11/99	2,250			

(1) All Water Right documentation can be found in Appendix E

(2) The total pumping capacity at Mount Si Springs is 2,000 gpm, which is limited in operation to 1,250 gpm due to transmission system capacity. The Report of Examination for the water right also stipulates that 3.0 cubic feet per second must bypass the point of diversion at all times.

(3) Cascade Golf Course Water Right, purchased in 2018

(4) This application is for an increase in the annual withdrawal rate from the Mount Si Springs.

STORAGE

The City is served by three reservoirs. The Nintendo and I-90 Reservoirs are located in the 594 Zone. The Forster Woods reservoir serves the 710 Zone.

The Nintendo Reservoir has a capacity of 2.0 MG and was constructed in 1991. It is a prestressed concrete reservoir, 90 feet in diameter and 45-feet tall. The reservoir is located on a small knoll in the western portion of the North Bend area between I-90 and the Nintendo Distribution Center. This reservoir provides fire flow for the Nintendo Distribution Center and also storage and fire flow protection for the entire 594 Zone. In 2015 and 2020, the facility was cleaned and inspected.

The I-90 Reservoir has a capacity of 0.5 MG and was constructed in 1967. The tank is made of steel and is 56 feet in diameter and 29-feet high. The reservoir is located in the southern area of the City's water district at the intersection of 415th Avenue SE and SE 14th Street near the location of the old Clough Creek Watershed Dam. Water enters this reservoir when the Nintendo (2.0 MG) Reservoir is full. This reservoir was the City's only source of storage until the addition of the Nintendo Reservoir in 1991. In 2015 and 2020, the facility was cleaned and inspected.

The Forster Woods Reservoir has a capacity of 0.75 MG and was constructed in 1993 to serve the Forster Woods development in the southwest portion of the water service area. The tank is made of steel and is 54.5 feet in diameter and 44-feet tall. This reservoir provides storage and fire flow for the 710 and 780 Zones. In 2015 and 2020, the facility was cleaned and inspected.

Table 1-2 provides an overview of the City's reservoirs.

TABLE 1-2

Reservoirs

Name	Volume	Overflow	Height x Diameter	Construction	Year	Comments
I-90	0.5 MG	594 ft	29' x 56'	Steel	1967	Cleaned 2020
Nintendo	2.0 MG	594 ft	45' x 90'	Prestressed Concrete	1991	Cleaned 2020
Forster Woods	0.75 MG	710 ft	44' x 54.5'	Steel	1993	Cleaned 2020

BOOSTER PUMP STATIONS

Two booster pump stations provide water to the 710 and the 780 Zones. The first station conveys water from the 594 Zone to the 710 Zone. This station is located on SW 10th Street in the Forster Woods development. Three pumps provide domestic demand and

fire flow demand for the majority of the Forster Woods development. Fire flow is provided for both the 710 and 780 Zones from a 2,650 gpm pump located at the 710 Booster Station. Two pumps, each capable of supplying 305 gpm, are used alternately to supply the Forster Woods reservoir and the 710 Zone. A Pressure Reducing Valve (PRV) is also located at the booster station to allow flow from the 710 Zone to the 594 Zone.

The second booster station provides water to the portion of the Forster Woods development located in the 780 Zone. This booster station consists of three pumps and a PRV. Two of the pumps at the station each have a capacity of 192 gpm. The third pump has a capacity of 55 gpm.

Table 1-3 provides an overview of the City's booster pump stations.

TABLE 1-3

Booster Pump Stations

Name	No. of Pumps	Rated Capacity (gpm)	TDH (ft)	Pump hp	Pumps from Zone	Pumps to Zone	Auxiliary Power Generator
710 Booster Station	3	2-305 gpm 1-2,650 gpm	116	2-40 hp 1-150 hp	594	710	Yes
780 Booster Station	3	2-192 gpm 1-55 gpm	70	2-5 hp 1-2 hp	710	780	Yes

TRANSMISSION AND DISTRIBUTION SYSTEM

The distribution system was developed over the years to be consistent with the current technology at the time of construction. Up to the 1940s, most pipe consisted of wood stave and cast iron. North Bend utilized Asbestos Cement (AC) pipe for most repairs and updates in the 1950s and 1960s. At present, the City uses ductile iron (DI) pipe for repairs and improvements. The city continues to replace aging AC pipes as they reach the end of their useful life. The majority of the distribution system lies within the downtown area of the City. As the City continues to grow, the distribution system has spread to the southerly reaches of the water service area. Table 1-4 provides an inventory of pipe length and diameter throughout the North Bend service area.

TABLE 1-4
Pipe Inventory

Type of Pipe	4-inch	6-inch	8-inch	10-inch	12-inch	16-inch	20-inch	Total Length(ft)	Percent of Total
AC	10,076	25,242	5,472	10,646	7,740	0	0	59,177	29.7%
Cast Iron	897	1,265	0	2	609	0	0	2,773	1.3%
Ductile Iron	5,408	6,494	65,766	5,450	35,735	7,694	3,127	129,676	65.3%
PVC	217	203	1,292	0	4,105	0	0	6,658	3.3%
HDPE	0	0	0	0	0	827	0	827	0.4%
Total	16,598	33,229	72,531	16,099	48,189	8,521	3,127	198,294	100.0%

Pressure Zones

The City serves customers who reside in three pressure zones. The three zones are labeled 594, 710, and 780 in accordance with the hydraulic grade line associated with each zone.

The 594 Zone extends to the north along the Middle Fork of the Snoqualmie River; to the south along the south side of the South Fork of the Snoqualmie River and I-90; to the east to 428th Avenue SE and further east to the base of Mount Si; and to the west near the intersection of North Bend Way and Meadowbrook Way SE. Water from the 2.0-MG and 0.5-MG reservoir supplies this zone.

The 710 and the 780 Zones were created to serve customers in the City's water service area at higher elevations south of Interstate 90. Both of these zones are located within the southwestern portion of the service area, on the south side of Interstate 90.

The 710 Zone serves the Forster Woods and Arrive developments. A 0.75-MG reservoir was built within this zone to provide adequate storage for this zone. Water supply for this zone is gravity fed from the 0.75-MG reservoir. This zone serves approximately 218 single-family units and 232 multi-family units in the Arrive development.

The 780 Zone serves 135 additional units in the Arrive Development that are located at higher elevations and cannot be adequately served by the 710 Zone and booster pump station. An area to the west of Arrive, once considered for future residential development, has been purchased by the City and designated as a park.

Meters

The City's sources and booster stations are all equipped with meters to record the amount of water that flows through the respective pumps.

Approximately 20 years ago, the City replaced all of its service meters. The new meters are read automatically with a handheld recording device. These meters are read by scanning the recording device over the box that contains the meter. In 2019, the City began a customer meter replacement program. Under this program, all customer-side meters will be replaced on a 15-year cycle. The new meters that are being installed are Neptune drive-by radio-reads, with the built-in capability of converting to centralized-reading (smart meter) technology in the future. Starting in early 2019, all meters installed for new developments are the new radio-read technology.

SCADA System

The City's water system facilities are automatically controlled by a computer-based digital telemetry and supervisory control system, or Master Telemetry Unit (MTU). The MTU remotely operates the Mount Si Springs Booster Station and the Centennial Well according to the water level in the Nintendo reservoir. The 710 Booster Station is remotely controlled by the level in the Forster Woods Reservoir. The 780 Booster Station is controlled by the pressure in the 780 Zone. Hobo Springs and the future Sallal mitigation intertie are equipped with SCADA as well. The GE Fanuc iFix SCADA system includes a comprehensive historical data logging system, a software alarm dialer, remote access capabilities and a special report generation software. The computer-based telemetry system also provides remote control and alarm presentation with callout functionalities. The remote access feature provides operators a secure interface to the SCADA system via the internet using a laptop, tablet, or smartphone. This feature is utilized primarily by on-call operators to assess alarm callouts prior to physical arrival at the site. The Data Historian is installed on a cloud server (Azure) and is connected to the iFix Data Collector installed on the SCADA server at the Wastewater Treatment Plan (WWTP). The SCADA system is further detailed in Chapter 6. This discussion includes a comprehensive summary of inputs.

Interties

The City currently has one intertie which is governed by an emergency agreement with Sallal (Appendix C). It is located near the eastern boundary of the City's service area. The intertie was installed in 1987. A 6-inch pressure regulating valve is located at this intertie. Sallal has a 701 Zone adjacent to the North Bend 594 Zone. The intertie can only be operated manually during emergency situations and will only allow water to flow from the Sallal water system to the City of North Bend due to North Bend's lower zone pressure. Temporary pumps can be installed in the intertie vault which would enable Sallal to receive water from the City of North Bend.

Over the past decade the City and Sallal have been negotiating an intertie agreement that would allow Sallal to purchase water from the City's Centennial Well. The exact configuration of this intertie has not been determined, but the intertie would transfer water to the Sallal 701 Zone.

MITIGATION FACILITIES

The City's Centennial Well water right permit requires mitigation to offset net stream deletion to the Snoqualmie River caused by groundwater withdrawals at the well. The City's mitigation facilities provide mitigation water to the Snoqualmie River Watershed by conveying water from an existing intake structure at Hobo Springs to an outfall at Boxley Creek, a tributary of the Snoqualmie River. The Hobo Springs intake is in the Cedar River Municipal Watershed owned by Seattle Public Utilities and located approximately five miles southeast of North Bend. Both the Hobo Springs Weir site (source) and the Hobo Spring Valve Vault (control vault) were upgraded in December of 2018 with new communications (Ethernet Cellular) and upgraded PLCs. Programming changes in the PLC include flow paced control and mitigation daily flow total setpoints. This has had the effect of eliminating over-mitigating. The City's mitigation facilities also include a partially completed mitigation intertie with Sallal. At present the intertie is connected to the mitigation conveyance system; however, the intertie still needs to be connected to Sallal's Well 2. This work is anticipated to occur in the near future. The mitigation intertie will serve as a secondary source of mitigation water augmenting the City's supply from Hobo Springs.

The City purchased the Cascade golf course in November of 2018 in order to secure an additional mitigation source. The water right from this property, Certificate Number CG1-00142C, would add an additional 33 acre feet of available mitigation water after submitting a change application. The City is working towards converting the water right from an irrigation right to a mitigation right. If successful, the City will construct the necessary infrastructure to supply water to the South Fork of the Snoqualmie River, approximately 2,250 feet downstream of the 436th Avenue SE Bridge. Current infrastructure at the golf course includes a wellhead, a submersible pump, a local PLC, pump start, and a pond which could be used as equalizing storage for future mitigation efforts.

The City is also continuing to investigate additional sources of mitigation water. One such source is a mitigation well that has been drilled by the City near the Middle Fork Snoqualmie River. This well is not currently in use.







Figure 1-4 provides a map of the City's existing water system mitigation facilities.

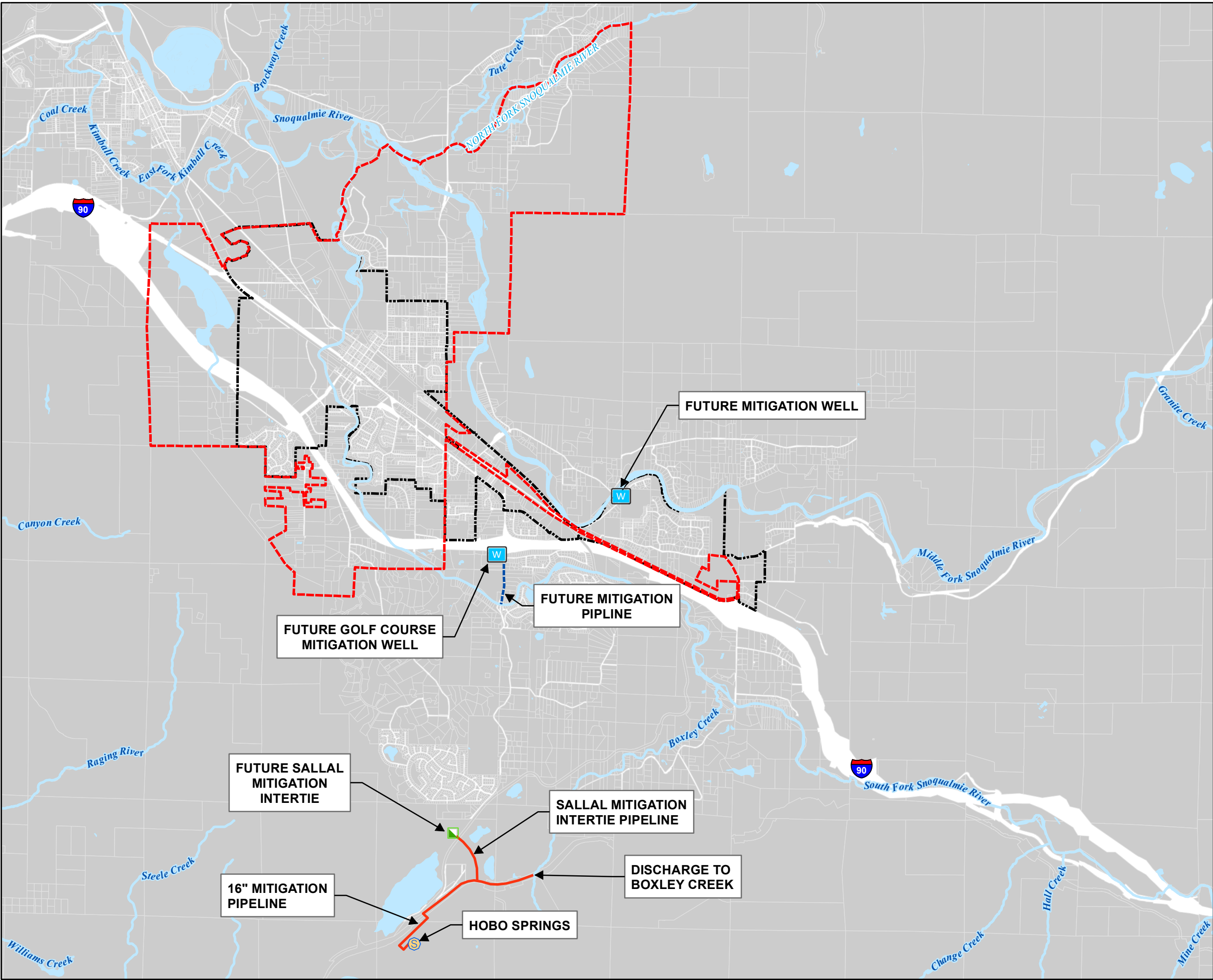
RELATED DOCUMENTS

The City's agreements with other water purveyors are given in Appendix C.

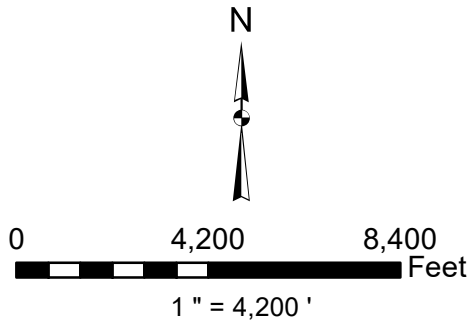
The following related planning documents were utilized in the preparation of the City of North Bend Water System Plan.

Legend

-  MITIGATION WELL
-  MITIGATION PIPELINE
-  RETAIL SERVICE AREA
-  NORTH BEND CITY LIMITS
-  SPRING
-  MITIGATION INTERTIE



Source: King County & City of North Bend GIS Data; Aerial



CITY OF NORTH BEND
WATER SYSTEM PLAN
FIGURE 1-4
MITIGATION FACILITIES



City of Snoqualmie Water System Plan, prepared February 2013 by Gray & Osborne, Inc.

Sallal Water Association Water System Plan Update, Draft 2020 by Gray & Osborne, Inc.

East King County Coordinated Water System Plan, October 1989, 1996

The East King County Coordinated Water System Plan (EKCCWSP) was developed to present an assessment of water supply needs within East King County and design a program to meet those needs. The Plan indicates that the region will have a 20 to 30 mgd shortfall by the year 2025 without the addition of new water rights. Options to be investigated to alleviate this short fall include:

- The implementation of conservation programs;
- The development of groundwater sources in known aquifers within the area;
- Groundwater management programs throughout King County;

The plan also presents a consistent water conservation program for water utilities in the East King County region. The EKCRWA recommends water utilities should coordinate efforts to find future water sources for the area. The water utilities in the East King County region should work with the East King County Water Utilities Coordinating Committee (WUCC), Ecology, and DOH to agree on the appropriate variables that need to be identified in creating useful modeling tools for water use in the East King County region.

City of North Bend Comprehensive Plan, 2015

The main focus of this document is to provide structure to the anticipated growth in North Bend over the next 20 years. This plan addresses the issues raised by the State's Growth Management Act and the concerns its citizens have about the next 20 years. It investigates the physical characteristics and land use needs of the community. It addresses the community's vision to remain a rural and natural environment while increasing its marketability as a community that is willing to grow. This document provides guidelines for the development of the City to meet these goals. The water system will be required to develop as the City grows. This water system plan has been developed consistent with the North Bend Comprehensive Plan.

East King County Ground Water Management Plan, December 1998

The East King County Ground Water Management Plan was utilized to identify the characteristics, management sources, and possible contaminants for the groundwater within the East King County area. The document details the characteristics of the aquifers within East King County. The document also provides a list of possible

contaminant sources ranging from underground storage tanks to landfills within the recharge area boundaries. The document provides detailed management strategies for the water purveyors in the area to help prevent contamination of the area's groundwater resources.

EXISTING SERVICE AREA

In accordance with the Municipal Water Law (MWL), the City is required to designate a retail service area within which it has a duty to serve all customers, and if appropriate, also designate a future service area and wholesale service area. At this time, the City provides only retail service within the service area established but may add the capacity to provide wholesale water to the Sallal Water Association as well.

Figure 1-5 shows North Bend's water service boundaries, City limits, and urban growth area (UGA).

Retail Service Area

The City acknowledges that it has a duty to serve all new connections within its retail service area. The retail service area is defined by the City and is required to include the current service area and areas where new service is proposed.

The City has a duty to serve an applicant for new service within its retail service area if all of the following conditions are met:

1. Service can be provided in a timely and reasonable manner. The City is in the process of formalizing their criteria for timely and reasonable. "Timely" will likely refer to a time frame of 6 months while "reasonable" will likely be a distance of 200 feet from an existing service main for a single ERU development and 400 feet from an existing service main for a development of 2 or more ERUs.
2. The municipal water supplier has sufficient water rights to provide service.
3. The municipal water supplier has sufficient capacity to serve water in a safe and reliable manner.
4. The service request is consistent with adopted local plans and development regulations.

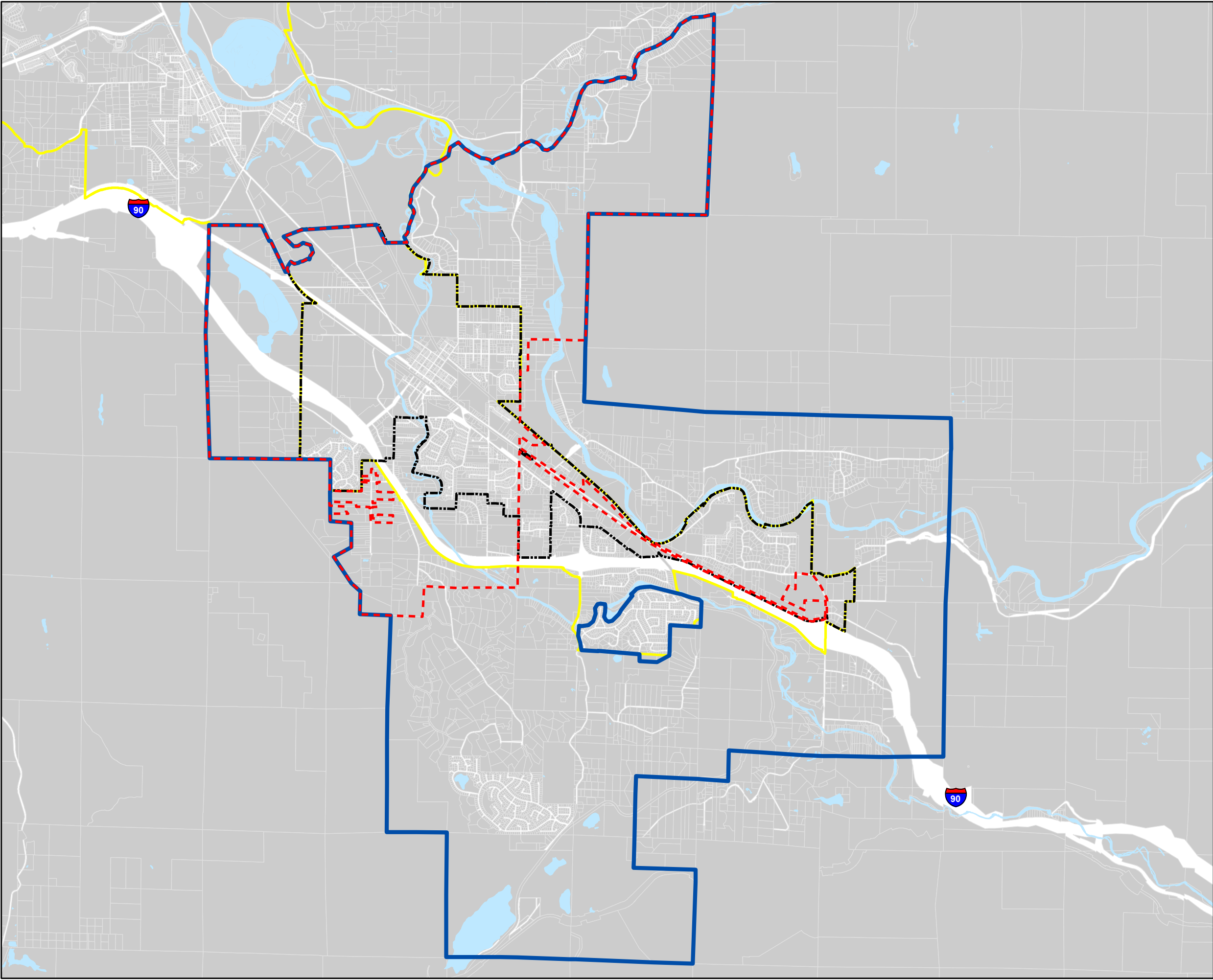
The City is aware of multiple small Group A and B water systems that fall within the City's Retail Service Area. If requested, the City is prepared to serve these water systems provided they meet the criteria described above.

Wholesale Service Area

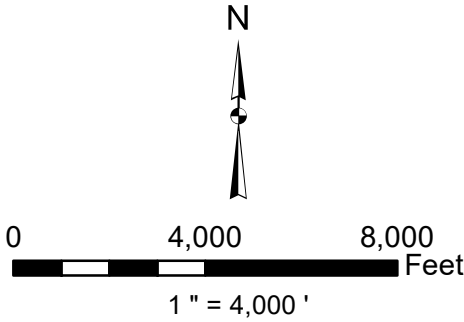
The City's wholesale service area includes the portion of the service area of the Sallal

Legend

- RETAIL SERVICE AREA
- SERVICE AREA (WHOLESALE AREA)
- NORTH BEND CITY LIMITS
- UGA BOUNDARY
- PARCELS



Source: King County & City of North Bend GIS Data; Aerial



CITY OF NORTH BEND
WATER SYSTEM PLAN
FIGURE 1-5
CITY LIMITS, UGA, AND
WATER SERVICE AREA



Water Association that is inside the City's Urban Growth Area boundary. Negotiations regarding potential water sales from the City's Centennial Well to Sallal are ongoing. The City also sells water to the Apline water Association via a 2-inch meter connection.

Future Service Area

The City's service area boundaries are not likely to expand due to the constraint of adjacent water purveyors. The City is committed, however, to ensuring that an adequate level of service is guaranteed for residents within the city limits. The City would consider expanding its RSA within city limits if an existing purveyor were not able to provide an adequate level of service in a timely and reasonable manner.

Geography

The City occupies land in the Snoqualmie Valley between the confluence of the Middle and South Forks of the Snoqualmie River and Interstate 90. The valley is crossed by the forks of the river and further intersected by Interstate 90. South of the interstate, the terrain rises sharply towards Rattlesnake Ridge. The City's water service area covers approximately 8.5 square miles and ranges in elevation from 400 feet to 2,000 feet. Water service customers reside at elevations ranging from 400 feet to 625 feet. Figure 1-6 shows the topography of the City's Water Service Area.

Geology

A unique aspect of glacial history occurred within the Upper Snoqualmie area. The area is located at the historical margins of the continental glaciers that entered the Puget Sound area from Canada and the alpine glaciers that descended from the Cascade Mountains. The confluence of these two glacial environments provide for large accumulation of sediment. The sheer volume of saturated sediments in the Snoqualmie Basin, in conjunction with high precipitation (snow and rainfall), is the basic indicator that a large groundwater development is possible. The area is part of the Snoqualmie Aquifer System which is defined as a series of connected aquifers. There are recharge and groundwater inflows along the margins and surface water discharge and deeper outflows in the Snoqualmie Falls area.

Due to the region's complex geology, there are several critical areas that fall within the planning area. The combination of rivers, wetlands, and flat valley floors makes the region prone to flooding. The Washington State Department of Ecology and FEMA have procedures for floodplain management and wellhead protection that must be followed when developments may impact a flood hazard area. The steep slopes along Rattlesnake Mountain are also of concern, as they are susceptible to erosion and pose landslide hazards. The critical areas are further identified in the North Bend Comprehensive Land Use Plan. Figure 1-7 shows the critical areas for the City's Water Service Area.

Land Use and Zoning

Development of accurate and reasonable growth projections is essential in establishing future water demand requirements. Accurate projections allow the community to anticipate future capacities, locations, implementations strategies, and scheduling requirements for water system improvements while also allowing for adequate financial planning.





Three major elements in predicting the amount and location of future growth and development in the Water Service Area are land use, zoning, and population projections. Population forecasts, in conjunction with current water consumption data, can provide a basis for estimating future water demands. Land use and zoning play an important role in predicting growth patterns, influencing future water requirements. Future land use, variations in use, and changing population densities, as determined by applicable zoning ordinances, can significantly impact a system's ability to provide adequate water service. Increased residential and commercial densities and new large industrial users, can greatly impact water system demands and affect both the system's level of service and its ability to deliver fire flows.

The following are the main types of land uses and their specific classifications:

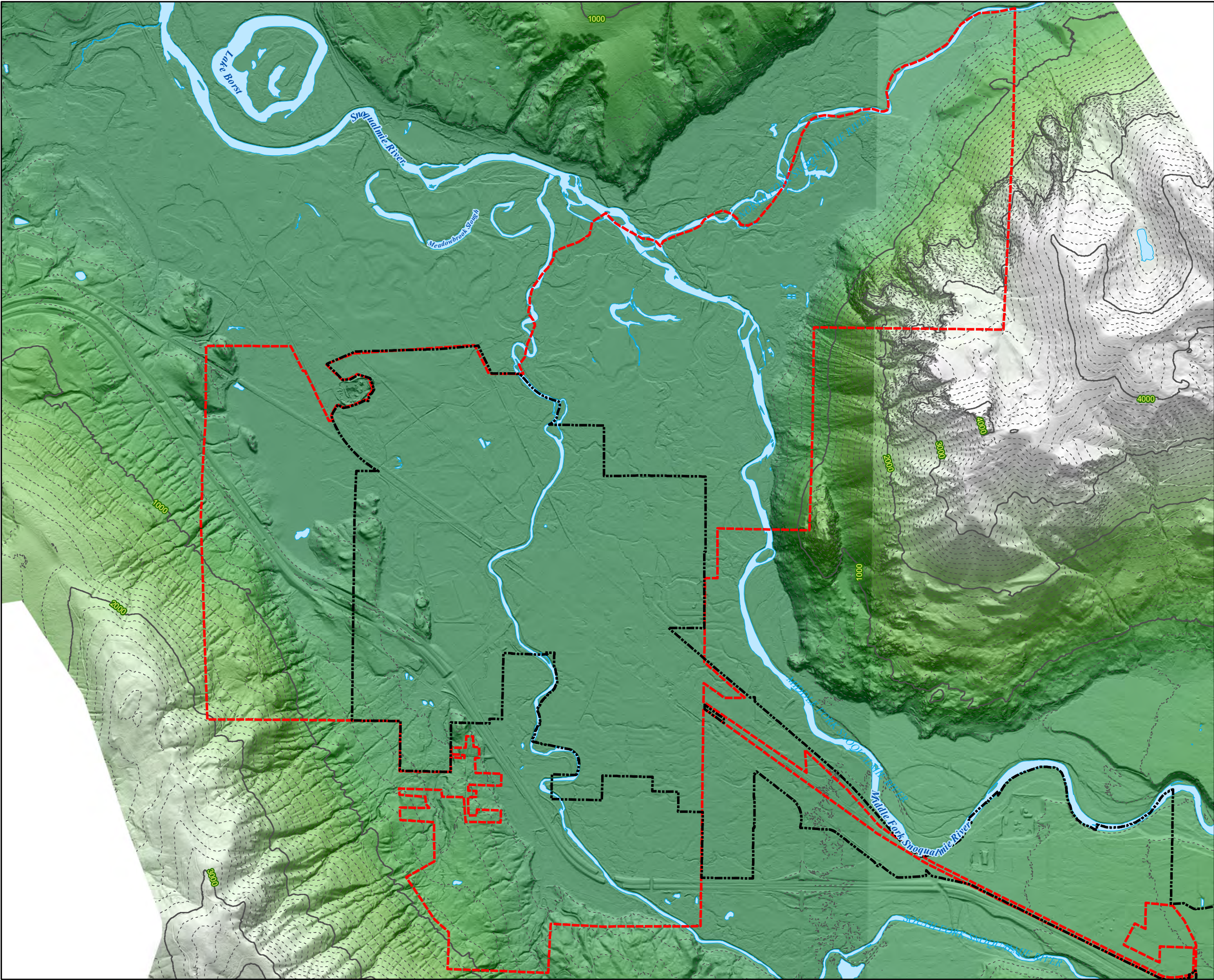
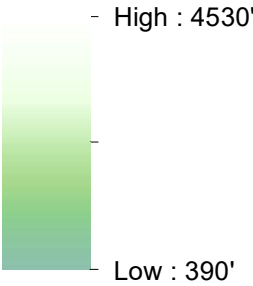
- Residential Land Use: Low and high density housing.
- Commercial Land Use: Retail, services, and office.
- Employment Park Land Uses: Office parks, high technology business parks, warehouses, heavy industrial and manufacturing.
- Parks, Open Space, and Public Facilities Land Use: Recreational open space, active and passive park uses, and publicly owned facilities.

Table 1-5 provides a breakdown of the land use for the City. Figure 1-8 and Figure 1-9 show the zoning for the City's Water Service Area.

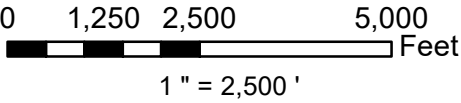
Legend

-  NORTH BEND CITY LIMITS
-  RETAIL SERVICE AREA
-  MAJOR CONTOUR - 1000'
-  MINOR CONTOUR - 100'

Elevation



Source:King County & City of North Bend GIS Data; Aerial



CITY OF NORTH BEND
WATER SYSTEM PLAN
FIGURE 1-6
SERVICE AREA TOPOGRAPHY



Legend

- RETAIL SERVICE
- NORTH BEND CITY LIMITS
- KING COUNTY WETLANDS
- NWI WETLANDS
- LANDSLIDE HAZARD

SHORELINE MANAGEMENT DESIGNATION:

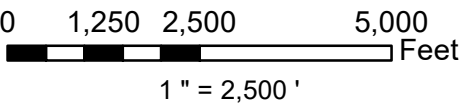
- Conservancy
- Rural
- Rural/Conservancy

CRITICAL AQUIFER RECHARGE AREA

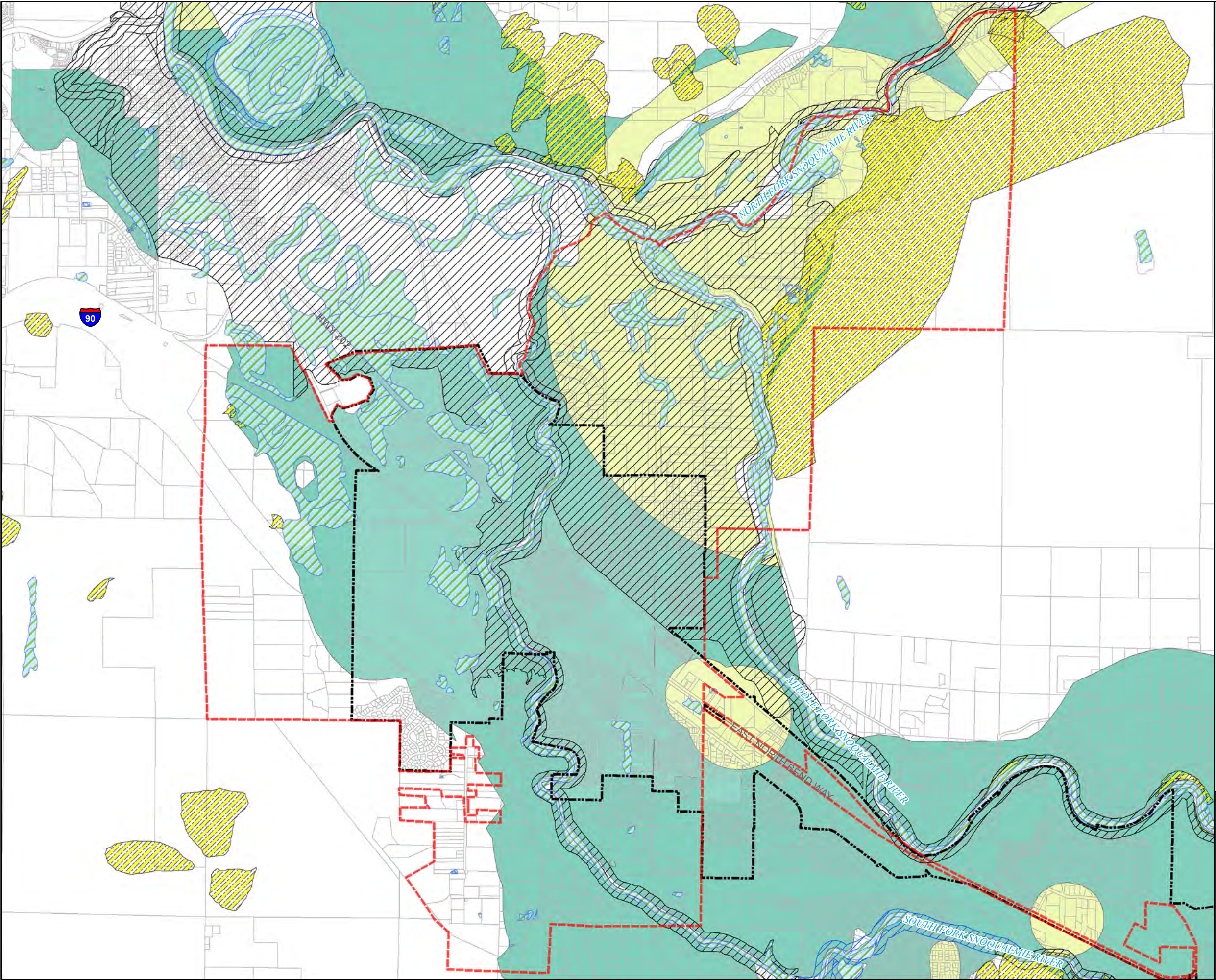
CATEGORY CODE

- 1
- 2

Source: King County & City of North Bend GIS Data; Aerial



CITY OF NORTH BEND
WATER SYSTEM PLAN
FIGURE 1-7
CRITICAL AREAS



Legend

- RETAIL SERVICE
- NORTH BEND CITY LIMITS
- ZONING**
- Constrained Low Density Residential
- Cottage Residential
- Downtown Commercial
- Employment Park - 1
- Employment Park - 2
- High Density Residential
- High Density Residential with Density Restrictions
- Interchange Commercial
- Interchange Mixed Use
- Low Density Residential
- Neighborhood Business
- Park / Open Space / Public Facilities
- Un-zoned Area /
- Un-zoned Area / Right of

Source: King County & City of North Bend GIS Data; Aerial



0 2,750 5,500 Feet
1" = 2,750'

CITY OF NORTH BEND
WATER SYSTEM PLAN
FIGURE 1-8
ZONING



Legend

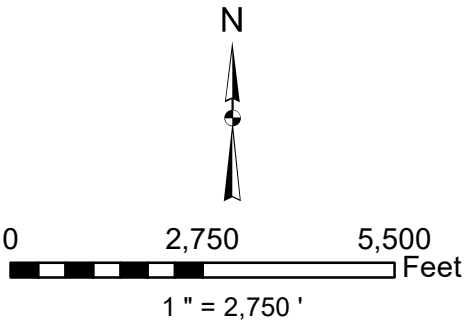
RETAIL SERVICE AREA

CURRZONE

- A-35 - Agricultural, one DU per 35 acres
- F - Forest
- RA-2.5 - Rural Area, one DU per 2.5 acres
- RA-5 - Rural Area, one DU per 5 acres
- RA-10 - Rural Area, one DU per 10 acres
- UR - Urban Reserve, one DU per 5 acres

NORTH BEND CITY LIMITS
(see figure 1-8 for City zoning)

Source: King County & City of North Bend GIS Data; Aerial



CITY OF NORTH BEND
WATER SYSTEM PLAN
FIGURE 1-9
KING COUNTY ZONING



TABLE 1-5
Zoning Classifications for the City's Water Service Area

Location	Zoning Category	Acres	Percent of Total
Inside North Bend's Urban Growth Area	Constrained Low Density Residential	375	12%
	Low Density Residential	1,160	37%
	Cottage Residential	59	2%
	High Density Residential	47	2%
	Downtown Commercial	67	2%
	Interchange Commercial	77	2%
	Interchange Mixed Use	40	1%
	Neighborhood Business	167	5%
	Employment Park – 1	350	11%
	Employment Park – 2	133	4%
	Park/Open Space/Public Facilities	664	21%
	Un-Zoned Areas (Right-of-ways/rivers)	15	0%
Total		3,155	100%
Outside North Bend's Urban Growth Area (King County Zoning)	RA-2.5 – Rural Area, 1 DU per 2.5 Acres	276	9%
	RA-5 – Rural Area, 1 DU per 5 Acres	472	15%
	RA-10 – Rural Area, 1 DU per 10 Acres	1,578	50%
	A-35 – Agricultural, 1 DU per 35 Acres	241	8%
	Forestry	560	18%
Total		3,127	100%

Source: 2015 North Bend Comprehensive Land Use Plan, King County 2019 Zoning GIS Data.

GROWTH MANAGEMENT ACT CONSIDERATIONS

The Growth Management Act (GMA) was passed into law in the State of Washington in 1990 with the intention of stopping uncoordinated and uncontrolled development which threatens the environment and contributes to urban sprawl. It was determined by the State that *“it is in the public interest that citizens, communities, local governments and the private sector cooperate and coordinate with one another in comprehensive land use planning.”* Several goals were adopted by the GMA to guide the development and adoption of comprehensive plans. These goals include encouraging development in urban areas where adequate public facilities and service can easily be provided, reducing sprawling low density development, encouraging efficient regional based transportation, promoting a variety of housing densities and types, and encouraging the retention of open space.

The City created 20-year population and employment growth targets in 2015. Available land area and existing zoning classifications within the Urban Growth Area (UGA) and incorporated city limits provide the basis for growth targets. The City of North Bend's 2015 Comprehensive plan projects the City and surrounding UGA will have a total of 2,331 units in 2035 and a population of 14,401. This figure is consistent with the figures used in the Water and Sewer Comprehensive Plans.

The City, through an earlier Annexation Feasibility Study, has designated annexation areas for growth and expansion in the North Bend area. The City has provided four factors to determine the order in which parcels are accepted into the City from the UGA. These criteria are:

- The ability of the City to provide City services;
- Achievement of logical, regular boundaries;
- Development potential of area to be annexed; and
- Identification of existing or potential community.

GMA COMPLIANCE – INTERNAL CONSISTENCY AND CONCURRENCY

The land use element of the North Bend Comprehensive Plan established targets for new residential and employment growth by the year 2035 as follows: The residential target is 771 households and the employment target is 1,050 jobs.

The GMA calls for provision of services and facilities including potable water and fire protection, concurrent with new development. Specifically, RCW 36.70A.020 adopted 13 goals to be achieved by the GMA. Goal 12 concerning public facilities and services states: “*ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.*” Further definition of the general goal is provided for the transportation element of the comprehensive plan, where RCW 36.70A.070(6) directs that system expansion needs be identified and a plan be prepared to finance said needs. If probable funding falls short of needs, additional funding must be raised or land use assumptions must be reassessed, to ensure that level of service standards will be met. The water plan needs to meet the same standards for concurrency as outlined for transportation.

The GMA calls for the comprehensive plan and all of its elements, including the water system plan, to be consistent. Per RCW 36.70A.070 the Comprehensive Plan “*shall be an internally consistent document and all elements shall be consistent with the future land use map.*”

SERVICE AREA POLICIES

The City’s service area policies are outlined in Table 1-6. A more detailed description of the City’s policies regarding applications for new water services are given in the subsection below.

APPLICATIONS FOR NEW SERVICE

Applications for new water services must meet the City's concurrency requirements as outlined in North Bend Municipal Code Chapter 20.12. For applicants applying for City development permits, the concurrency process coincides with the permitting process.

In order to meet the City's concurrency requirements, a development must pass a concurrency test. The concurrency test determines if the capacity of available public facilities is equal to or greater than the capacity required to maintain the City's level of service standard for the impact of the development. For the City's water system, the level of service has been established as the following:

1. Water Supply and Mitigation: Water rights certificates and/or permits issued by Washington State Department of Ecology;
2. Conveyance: Water System Design Manual, Washington State Department of Health; and
3. Storage: Water System Design Manual, Washington State Department of Health.

If there is sufficient water system capacity to accommodate the proposed development, the concurrency test is passed and a certificate of concurrency is issued. The certificate of concurrency is valid until the expiration date of the coinciding development permit or one year after issuance if the certificate is obtained without a permit. While the certificate is valid, capacity in the City's water system is reserved for the applicant. The certificate is issued either by the time the coinciding permit is issued or, in the absence of a permit, within 90 days after the complete application is received. Complete applications are processed in the order they are received.

A certificate of concurrency may not be extended according to the same terms and conditions as an underlying development permit. If a development permit is granted an extension or the certificate otherwise expires, the applicant must submit a new application for a concurrency test and certificate.

An applicant may appeal a denial of a certificate of concurrency to the North Bend Hearing Examiner on the following grounds:

1. A technical or mathematical error;
2. The applicant provided alternative data that was rejected by the City; or
3. Unwarranted delay in review of the application that allowed capacity to be given to another applicant.

If the new service involves an extension of a water main, the applicant must enter into a developer extension agreement with the City. Once this agreement is in place, the plans can be reviewed, review and connection fees paid, and the project permitted. The applicant then installs the facilities and makes the appropriate connections. An as-built of

the installation is required to be provided to the City before service is started and the project is accepted as complete. The applicant is charged a meter drop fee for the City's installation of the service meter. The ownership of the facilities is then conveyed to the City for operation and maintenance. If the main extension is to the benefit of other properties, the applicant can enter a Latecomers Agreement with the City for future reimbursement of partial installation costs as other benefiting properties connect to the main. This agreement is good for up to 20 years after installation of the facilities.

If the new service involves a connection to an existing main, the applicant must submit a plan and application for service. The City reviews the proposal and, upon receipt of review, connection, and service installation fees, the City installs the service connection from the main to a meter box at the property line. The applicant is responsible for the connection from the meter box to the building. The City inspects the installation of the service line to assure there are no cross connections. The applicant must submit an as-built of the service line layout on the property before the service is started and the project is accepted as complete.

TABLE 1-6**Service Area Policies**

Policy Name	Policy Description	City Policy	Source
Water Rates	Rates charged to the City's water customers.	The City's water rates are established by ordinance in the City's taxes, rates, and fees schedule.	North Bend Municipal Code Chapter 13.08 and City of North Bend Ordinance No. 1245
Wholesaling of Water	Conditions which must be met to obtain a wholesale agreement included in the conditions of service for wholesaling of water.	The City's sole wholesale water customer is Alpine Water Association, who are served via a single 2-inch meter. Wholesaling will be considered on a case by case basis under the conditions indicated in the Water System Plan.	2020 Water System Plan
Wheeling of Water	Conditions met for water wheeled to another system, i.e., compatible water quality, engineering, etc.	Wheeling will be considered on a case by case basis under the conditions indicated in the Water System Plan.	2020 Water System Plan
Annexation Policy	How city annexation relates to the provision of water service.	Annexed areas without an existing supply may be served by the City. Annexed areas with an existing municipal supply must meet water standards. Unannexed areas outside of City's boundaries will be evaluated on a case by case basis.	2015 North Bend Comprehensive Land Use Plan RCW 35.13

TABLE 1-6 – (continued)

Service Area Policies

Policy Name	Policy Description	City Policy	Source
Design and Performance Standards	Minimum design and performance standards for new development.	This policy outlines the application process, effective dates of agreements, requirements for connecting with mains, specifications and maintenance of service pipes, installation fees, and locations and requirements of service pipes.	2020 Water System Plan, Developer Standards
Direct Connection and Remote System Policy	Determination of whether new developments directly connect to existing water system, or whether satellite systems will be allowed.	New developments are required to connect directly to the system. Satellite systems may be considered on a case by case basis under the conditions indicated in the Water System Plan.	2020 Water System Plan, Developer Standards
Surcharge for Outside Customers	City's surcharge for customers outside corporate limits.	A monthly surcharge on base and usage rates shall be collected on all water customer accounts outside the City limits: see current water rates in Chapter 9.	City of North Bend Ordinance No. 1245
Temporary Water Service	Policy allowing new connections within the City's water service boundaries to temporarily receive water from adjacent purveyors.	If the City is temporarily unable to provide service within its service area, People interested in a water service connection maybe supplied with water from an adjacent purveyor subject to City Council agreement.	2020 Water System Plan
Urban Growth Areas	Responsibility of service is provided in UGA, how provided, and how financed.	Sewer and water, drainage facilities, utilities, telecommunications lines, and local roads will be extended to UGA areas.	City of North Bend 2015 Comprehensive Land Use Plan
Late-Comer Agreements	Policy on allowing late-comer agreements for those who propose to extend the water system, and provisions of payback.	These agreements are negotiated with developers and property owners on a case by case basis.	2020 Water System Plan, Developer Standards
Oversizing Policy	City provides funds to install larger than needed facilities to allow for future development, if needed.	Oversizing will be negotiated on a case by case basis as indicated in the Developer Standards	2020 Water System Plan, Developer Standards

TABLE 1-6 – (continued)**Service Area Policies**

Policy Name	Policy Description	City Policy	Source
Cross-Connection Control Program	Policy on regulations of cross-connections, including steps taken if a cross-connection is discovered.	State approved backflow prevention devices are required on all cross connections or potential cross connections. Each device must be inspected and tested yearly.	WAC 246-290-490, North Bend Municipal Code Chapter 13.16, and Cross-Connection Control Program
Extension Policy	Policy regarding extension of the system, including identity of responsible party. Design standards and payment included in conditions of service.	Applications must be made for extension of water main. The City shall determine proper size of main, not less than 8-inches. Property owners will pay for extension of mains.	2020 Water System Plan, 2010 Developer Standards, City of North Bend Municipal Code Chapter 19.01
Connection Fee Policy	Fees relating to the installation of water service.	Fees for water service will be determined by the size of meter installation, number of connections or units being served, and the water delivered through the service meter.	City of North Bend Municipal Code Chapter 13.08
Certificate of Concurrency	Issuance of a certificate indicating water availability.	Water availability will be dependent on the property owner meeting the City's Concurrency Requirements	City of North Bend Municipal Code Chapter 20.12
Water Rights	Relinquishment/ Transfer of Water Rights within Water Service Area	The City will require owners of private wells who connect to the City's water utility to transfer any water rights associated with their property to the City.	2020 Water System Plan

CHAPTER 2

BASIC PLANNING DATA

This chapter includes basic planning data as well as growth and demand projections. These projections will inform the evaluation of the existing system and determine future needs based on foreseeable trends through the year 2040.

EXISTING POPULATION, SERVICES, AND WATER DEMAND

RESIDENTIAL POPULATION

As discussed in the previous chapter, the City of North Bend's retail service area does not serve the City's entire population. A portion is served by Sallal Water Association. The 2010 Census tallied 5,731 residents in the City of North Bend as a whole. By 2019, the Washington State Office of Financial Management estimated that the population had increased to 6,965, representing a 21.5 percent increase in 9 years and an average annual increase of 2.2 percent. As much of the City's growth was concentrated within the Retail Service Area (RSA) a yearly increase for the RSA population was assumed be 2.5 percent. This yields a RSA population of 5,305 in 2010 and 6,625 in 2019.

TOTAL CONNECTIONS SERVED

The 2019 DOH Water system design manual defines connections served as the total of "each single-family home, each unit in a multifamily building, and each nonresidential building the water system serves."

As shown in Table 2-1, the total connections served by the City's water system. In 2019, the City served 2,745 connections.

TABLE 2-1

2019 Connections Served

Customer Classification	Number of Service Connections
Single-Family Residential	1,949 ⁽¹⁾
Multi-Family Residential	548 ⁽²⁾
Commercial/Government	248 ⁽¹⁾
Total	2,745

(1) From 2019 customer meter data.

(2) From Section 26.B of North Bend's 2019 Water Facilities Inventory Form.

In contrast, the total service meters are the sum of every metered connection as reflected in the City's consumer billing. Total service meters for the period of 2009 through 2018 can be seen in Table 2-2.

TABLE 2-2
Total Service Meters for 2009 Through 2019

Year	Total Service Meters
2009	1,716
2010	1,724
2011	1,712
2012	1,769
2013	1,837
2014	1,882
2015	1,899
2016	1,905
2017	1,968
2018	2,182
2019	2,356

A total of 640 service meters were added to the City's system between 2009 and 2019 which represents a 37 percent increase over 10 years and an average annual increase of 3.2 percent.

WATER USE

Water production data is currently collected from a single electromagnetic flow meter at the Mount Si Springs. Water production at the Centennial Well is also measured using an electromagnetic flow meter. Both meters are read on a daily basis. The meter at Mount Si was replaced in 2017 while the meter at the Centennial Well was replaced in 2019.

Production History

The 2009 through 2019 historical average day and peak day production for each of the City's sources, in addition to the cumulative average day production are summarized in Table 2-3.

TABLE 2-3
Metered Water Production

Year	Total Average Day Production	Mount Si Spring				Centennial Well			
		Peak Day Production	Day	Average Day Production	Percentage of Total Production	Peak Day Production	Day	Average Day Production	Percentage of Total Production
2009	627,488	975,610	7/12/2009	342,503	54.6%	1,305,461	8/3/2009	284,985	45.4%
2010 ⁽¹⁾	570,876	1,056,425	7/28/2010	302,938	53.1%	896,852	7/12/2010	267,937	46.9%
2011	508,509	782,456	8/22/2011	169,966	33.5%	785,347	9/12/2011	336,899	66.5%
2012	526,144	906,941	8/15/2012	192,774	36.6%	869,161	8/19/2012	333,371	63.4%
2013	545,666	967,200	7/21/2013	232,820	42.7%	1,031,768	7/3/2013	312,846	57.3%
2014	545,002	989,584	8/4/2014	248,885	45.7%	1,032,905	8/11/2014	296,117	54.3%
2015	562,293	1,185,700	6/29/2015	254,227	45.2%	1,306,692	7/24/2015	308,066	54.8%
2016	534,804	886,423	6/14/2016	304,779	57.0%	842,229	6/30/2016	230,025	43.0%
2017 ⁽²⁾	568,447	688,441	1/9/2017	132,500	23.3%	1,132,000	8/3/2017	435,948	76.7%
2018	541,690	878,000	6/9/2018	217,788	40.2%	895,536	9/10/2018	323,903	59.8%
2019	563,078	943,564	6/17/2019	285,151	53.4%	1,031,000	6/14/2019	262,447	46.6%

(1) Does not include the water pumped during the preliminary pump test on August 31 and the aquifer pump test on September 13 and 14.

(2) VFDs installed at Mount Si Springs in the summer of 2017.

From 2010 to 2019 Mount Si Springs had a peak day production ranging from 688,441 to 1,185,700 gallons per day and average day production ranging from 132,500 to 342,503 gallons per day and accounted for between 23.3 and 57.0 percent of the total source production.

Over the same time period the Centennial Well has had peak day production ranging from 785,347 to 1,306,692 gallons per day, average day production ranging from 145,806 to 435,948 gallons, and accounted for between 43.0 and 76.7 percent of total source production.

Peak day production for both sources typically occurs in the drier months between June and September. In 2017, two variable frequency drives (VFDs) were installed at the Mount Si Springs pumping facility. This downtime resulted in the lower than usual contributions from Mount Si Springs and comparatively higher contribution from the Centennial Well in 2017.

Peak Day Production and Peaking Factor

The peak day production corresponds to the day of greatest aggregate flow of combined Mount Si Springs and Centennial Well production and varies from the peak day by source summarized in Table 2-3. The peak day productions and corresponding days for 2009 through 2019 are summarized in Table 2-4.

The peak day factor will be used in subsequent projections and can be determined by dividing the peak day production of a given year by the same year's average day production. This is analogous to the method described in the 2019 DOH Water System Design Manual. In this case Average Day Demand (ADD) corresponds to average day production and Maximum Day Demand (MDD) corresponds to peak day production. This method ensures that the City's elevated DSL is included in the peaking factor. The peak day productions for the City's source from 2009 to 2019 are shown in Table 2-4.

TABLE 2-4
Peak Day Production Factor

Year	Peak Day	Peak Day Production (gpd)	Total Average Day Production (gpd)	Peak Day Factor
2009	31-Jul	1,385,112	627,488	2.21
2010 ⁽¹⁾	28-Jul	1,056,425	570,876	1.85
2011 ⁽²⁾	23-Jul	788,074	508,509	1.55
2012	3-Oct	928,769	526,144	1.77
2013	3-Jul	1,035,175	545,666	1.90
2014	11-Aug	1,033,327	545,002	1.90
2015	24-Jul	1,377,689	562,293	2.45
2016	23-Aug	994,352	534,804	1.86
2017	3-Aug	1,132,000	568,447	1.99
2018	19-Jul	1,038,189	541,690	1.92
2019	21-Jun	1,034,181	563,078	1.84
Average Ratio				1.93

- (1) Large production days on August 31st as well as September 13th and 14th of 2010 were discounted as peak production days since these occurred as part of preliminary pump tests for the Centennial Well.
- (2) Peak day production occurred on December 18, 2011; however, this day was discounted as it resulted from an 8-inch water main break.

The City has an average ratio of peak day production to average day production of 1.93. This is below the minimum suggested factor of 2.0. As a result, a peak day factor of 2.0 will be used in all forecasted projections which are summarized in Table 2-15.

CONSUMPTION HISTORY

Meter data for the City is collected once a month. The City's annual water consumption by customer class for the period 2009 to 2019, based on existing customer meter data, is presented in Table 2-5. The 2019 seasonal variation in consumption by customer class is shown in Table 2-6, which presents the monthly consumption for each class. Meters were not read in March 2019 due to prolonged snow. As a result, the April readings were divided evenly between March and April.

Table 2-7 presents the percentage use of each customer class from 2009 to 2019.

TABLE 2-5**2009-2019 Average Daily Consumption by Customer Class (Gallons)**

Year	Single-Family	Multi-Family	Commercial/ Industrial/Government	Total
2009	258,114	99,894	130,091	488,098
2010	225,476	102,299	109,203	436,979
2011	208,749	102,094	99,766	410,609
2012	231,261	93,958	96,729	421,948
2013	222,598	101,278	122,035	445,911
2014	230,893	99,768	126,209	456,870
2015	251,088	101,329	149,796	502,213
2016	228,934	96,201	116,540	441,675
2017	242,300	89,165	127,508	458,974
2018	239,719	78,290	122,648	440,657
2019	238,729	66,053	112,615	417,398

TABLE 2-6**2019 Average Daily Consumption by Month and Customer Class (Gallons)**

Month	Single-Family	Multi-Family	Commercial/ Industrial/Government	Total
January	179,424	57,572	70,466	307,462
February	237,874	77,553	88,634	404,061
March ⁽¹⁾	191,755	51,175	61,313	304,243
April ⁽¹⁾	191,755	51,175	61,313	304,243
May	239,945	66,282	98,042	404,268
June	231,986	61,288	110,313	403,587
July	278,505	64,458	153,024	495,987
August	323,841	89,563	181,094	594,498
September	315,259	82,800	172,078	570,138
October	320,909	85,174	178,819	584,902
November	195,419	60,222	121,434	377,075
December	158,077	45,378	54,854	258,309

(1) Meters were not read in March 2019 due to snow, the April readings were split evenly between March and April.

TABLE 2-7

Percentage Consumption by Customer Class for 2009 Through 2019

Year	Single-Family	Multi-Family	Commercial/ Industrial/Government	Total
2009	52%	20%	28%	100%
2010	51%	23%	26%	100%
2011	51%	24%	25%	100%
2012	55%	22%	23%	100%
2013	50%	22%	28%	100%
2014	50%	22%	28%	100%
2015	50%	20%	30%	100%
2016	51%	21%	27%	100%
2017	54%	20%	26%	100%
2018	53%	17%	30%	100%
2019	57%	16%	27%	100%

DISTRIBUTION SYSTEM LEAKAGE

Distribution System Leakage (DSL) is defined as the difference between the total water produced and authorized consumption. The total water produced includes the metered production from the system's sources. Authorized consumption includes both metered customer consumption and unmetered authorized consumption, such as main flushing and fire flows. The City's water system staff estimates unmetered authorized consumption based on the information available.

Table 2-8 shows distribution system leakage estimated for 2009-2017. The Water Use Efficiency (WUE) Rule requires that water systems maintain a 3-year rolling average DSL of 10 percent or lower.

TABLE 2-8**Distribution System Leakage**

Year	Metered Production (MG)	Metered Use (MG)	DSL		3-year Average (%)
			(MG)	(%)	
2009	230	181	49	21.3%	25.2%
2010	213	162	52	24.2%	23.4%
2011	185	152	33	18.0%	21.2%
2012	192	156	36	18.6%	20.3%
2013	199	163	37	18.4%	18.3%
2014	199	167	32	16.3%	17.8%
2015	205	180	25	12.1%	15.6%
2016	195	163	32	16.3%	14.9%
2017	207	169	38	18.5%	15.6%
2018	212	164	48	22.8%	19.2%
2019	206	152	53	25.9%	22.4%

Between 2009 and 2019, the City's 3-year rolling DSL average ranged between 14.9 and 22.4 percent. DSL increases in 2017 and 2018 coincided with the replacement of the source meters, suggesting that metered production before 2017 was actually under-represented. The DSL has consistently been above the Distribution System Leakage Standard of 10 percent maximum. As a result, the City must prepare a water loss control action plan. This plan can be found in Chapter 5, Water Use Efficiency.

EQUIVALENT RESIDENTIAL UNITS

An Equivalent Residential Unit (ERU) is a means to express water use by non-residential customers. One ERU is equivalent to water usage by one residential customer. An ERU is calculated by dividing the total volume of water utilized by the entire single-family customer class by the total number of single-family residential connections. This figure defines the average single-family residential water use and does not include distribution system leakage. The volume of water used by other customer classes can then be divided by this number to determine the equivalent residential units utilized by the other customer classes. Table 2-9 provides ERU values for 2009-2019. The average single-family residential water use for the City for that period is 158 gpd. Table 2-10 provides the number of water service connections by customer class, the average daily consumption for each class, the equivalent residential units, and the average ERUs per connection for 2019.

TABLE 2-9
Equivalent Residential Units for 2009 through 2019

Year	Number of Single-Family Connections⁽³⁾	Average Daily Single-Family Water Consumption (gpd)⁽¹⁾	ERU_(ADD) (gpd)	ERU_(MDD)⁽²⁾ (gpd)
2009	1337	258,114	193	386
2010	1342	225,476	168	336
2011	1343	208,749	155	322
2012	1389	231,261	166	333
2013	1461	222,598	152	305
2014	1503	230,893	154	307
2015	1525	251,088	165	329
2016	1529	228,934	150	299
2017	1583	242,300	153	306
2018 ⁽³⁾	1,619	228,564	141	282
2019 ⁽³⁾	1,883	256,793	136	273
		Average	158	315

- (1) Consumption ERU value based on metered single-family residential consumption.
 (2) $ERU_{(MDD)} = \text{Peak Day Factor} * ERU_{(ADD)}$ Where: Peak Day Factor = 2.0 from Table 2-4.
 (3) Single family connections and average daily single-family water consumption were adjusted to reflect vacant units by assigning a weighted average corresponding to months of habitation.

TABLE 2-10
Equivalent Residential Units for 2019

Customer Class	Number of Connections/ Service Meters⁽¹⁾	Average Daily Water Consumption (gpd)	Total ERUs⁽³⁾	Average ERUs per connection
Single Family	1,949 ⁽¹⁾	238,729	1,949	1
Multi-Family	548 ⁽¹⁾ /159 ⁽²⁾	66,053	419	0.8/2.6
Commercial/ Industrial/ Government	248 ⁽¹⁾	112,615	714	2.9
DSL	-	130,200	826	-
Total	2,745	547,597	3,908	-

- (1) From Table 2-1.
 (2) From Table 2-2.
 (3) Per 2009-2019 ERU Value of 158 gpd/ERU from Table 2-8.

HIGH USAGE CUSTOMERS

The ten customers with the highest water consumption in 2019 are summarized in Table 2-11 along with the annual water consumption and number of equivalent residential units (ERUs). These customers accounted for approximately 10 percent of 2019's total water consumption.

TABLE 2-11

High Usage Customers

Customer	Annual Consumption (gpd) ⁽¹⁾	Number of ERUs ⁽²⁾
QFC	6,048	37
Safeway Inc.	4,813	29
Les Schwab	4,251	26
Si View Apartments	4,230	26
Arby's Restaurant Group	3,992	24
Lakeshore Corporation	3,706	22
Red Oak	3,551	22
Sno Ridge Apts	3,501	21
Mt Si Chevron	3,489	21
North Bend Bar & Grill	2,747	17
Total	40,329	244

(1) Annual Consumption based on 2019 data.

(2) Based on the 2009-2019 average ERU value of 158 gpd/ERU from Table 2-8.

PEAKING HOUR FACTOR

In order to estimate peak hour demands for the City, a peak hour peaking factor must be calculated from the ratio of peak day to peak hour demand. Peak hour demand was determined by using the DOH Water System Design Manual (Design Manual) guidelines for estimating peak hour demand. The equation used to estimate the peak hour demand is given as:

$$PHD = (ERU_{MDD}/1440)[(C)(N) + F] + 18$$

Where:

PHD	=	Peak Hourly Demand, (gallons per minute, gpm)
C	=	Coefficient Associated with Ranges of ERUs
N	=	Number of ERUs based on the ERU_{MDD} value
F	=	Factor Associated with Ranges of ERUs
ERU_{MDD}	=	Maximum Day Demand per ERU

The equation was used to estimate the peak hour demand for 2019, where the number of ERUs based off max day demand equals 3,908. The C and F factors from the Design

Manual for this number of ERUs are 1.6 and 225, respectively. With an ERU_{MDD} of 315, the calculated peak hourly demand equals 1,436 gpm for 2019. The ratio of peak hourly demand to peak day demand, (718 gpm) is therefore 2.0 for 2019. This corresponds with typical ratios for peak hour demand and will be used to project future peak hour demands for the City.

FUTURE POPULATION AND WATER DEMANDS

SALLAL WHOLESALE WATER DEMAND PROJECTIONS

The City and the neighboring Sallal Water Association (Sallal) are in the process of negotiating an agreement that would allow the City to provide wholesale water directly to the Sallal's distribution system via a new intertie while also giving the City the opportunity to purchase Sallal mitigation water during periods of low instream flow.

The City contracted with Golder Associates to perform water demand projections using their existing projection model. This model projected water demands in the City's RSA as well as potential future wholesale demands to Sallal. The model has calibrated these volumes to reflect projected growth and demands in both water systems. The wholesale demand projections are summarized in Table 2-12 below. The Golder projection memorandum can be found in Appendix F.

TABLE 2-12

Projected Sallal Wholesale Demand

Year	Average Day Sallal Wholesale Demand (gpd)⁽¹⁾	Peak Day Sallal Wholesale Demand (gpd)⁽²⁾
2020	0	0
2021	19,699	50,823
2022	19,096	49,268
2023	19,644	50,682
2024	20,847	53,785
2025	22,548	58,174
2026	24,411	62,980
2027	25,836	66,657
2028	26,093	67,320
2029	28,630	73,865
2030	30,219	77,965
2040	52,240	134,779

(1) From Golder Demand Projections Appendix F.

(2) Peak Day Sallal Wholesale = Average Day Sallal Wholesale * Peaking Factor
Where: Peaking Factor = 2.58 (from Table 2-8, Draft 2020 Sallal WSP)

PROJECTED POPULATION

Population projections for the 20-year planning horizon were estimated for the City's water service area based on the population growth predictions in the City's Comprehensive Plan and the Washington State Office of Financial Management's population projections. With the help of these sources an annual growth rate of 2.5 percent was assumed for the City's RSA. This growth rate will be used to project future water demands within the City's Retail Service Area. Table 2-13 presents the projected population for the City's Water Service Area through 2040; more detailed projections can be found in Table 2-15.

TABLE 2-13

Projected Population for North Bend Water Service Area

Year	RSA Population⁽¹⁾
2020	6,791
2030	8,693
2040	11,128

(1) Based on an annual growth rate of 2.5 percent.

WATER DEMAND PROJECTIONS

The City contracted with Golder Associates to perform water demand projections using their existing projection model. These projections encompassed 2020 through 2050 and assumed development would occur in the City, urban growth boundary, and unincorporated King County. Wholesale water sales to Sallal Water Service Area were also projected beginning in 2021, reflecting demands in both RSAs. A yearly DSL totaling 50 MG was chosen to reflect the status quo and was applied to all categories with the exception of potential wholesale water to Sallal. The full memorandum detailing these projections can be found in Appendix F.

The water demand projections produced by Golder Associates categorized water demands by the City's 7 zoning classification. For the purposes of this WSP, these categories were reassigned to the customer categories summarized in Table 2-14.

TABLE 2-14

Water Demand Projection Recategorization

2020 WSP Water Demand Projection Category	Golder Memorandum Water Demand Projection Category
Average Day Production	<ul style="list-style-type: none"> • City Water Service Area
Total Consumption	<ul style="list-style-type: none"> • City Water Service Area (Minus DSL Factor)
Single-Family Consumption	<ul style="list-style-type: none"> • Single Family Residential (Minus DSL Factor)
Multi-Family Consumption	<ul style="list-style-type: none"> • Multi-Family Residential • Multi-Family Residential and Commercial (MF demand component) (Minus DSL Factor)
Commercial/Industrial/ Government Consumption	<ul style="list-style-type: none"> • Multi-Family Residential and Commercial (Commercial demand component) • Commercial • Employment Park • Parks/Open Space or Public Facility • Agricultural Irrigation (Minus DSL Factor)

TABLE 2-15

Projected Demands in the Water Service Area Through 2040

Year	RSA Population ⁽¹⁾	Single-Family Cons. (gpd) ⁽²⁾	Multi-Family Cons. (gpd) ⁽⁸⁾	Comm/Ind/Gov Cons. (gpd) ⁽²⁾	Total Cons. (gpd) ⁽²⁾	DSL (gpd) ⁽³⁾	PHD (gpm) ⁽⁶⁾	Number of ERUs ⁽⁷⁾	Average Day Production (gpd)			Peak Day Production (gpd)		
									RSA ⁽⁴⁾	Wholesale	Total	RSA ⁽⁵⁾	Wholesale	Total
2020	6,791	286,952	91,901	184,069	562,922	136,986	1,991	4,440	699,908	0	699,908	1,399,816	0	1,399,816
2021	6,961	293,872	132,554	167,405	609,062	136,986	2,122	4,733	746,048	19,699	765,747	1,507,142	50,823	1,557,965
2022	7,135	303,002	132,980	165,861	616,585	136,986	2,143	4,780	753,571	19,096	772,667	1,546,072	49,268	1,595,339
2023	7,313	309,922	136,113	174,859	636,050	136,986	2,199	4,904	773,036	19,644	792,680	1,599,377	50,682	1,650,059
2024	7,496	317,489	139,425	188,757	662,702	136,986	2,275	5,073	799,689	20,847	820,536	1,662,549	53,785	1,716,334
2025	7,683	329,097	143,321	204,450	694,288	136,986	2,364	5,273	831,274	22,548	853,822	1,724,471	58,174	1,782,645
2026	7,875	338,963	146,522	220,879	725,249	136,986	2,452	5,470	862,235	24,411	886,646	1,779,339	62,980	1,842,319
2027	8,072	347,959	149,051	235,675	752,683	136,986	2,531	5,644	889,669	25,836	915,505	1,841,886	66,657	1,908,543
2028	8,274	358,919	152,885	250,835	783,957	136,986	2,619	5,842	920,943	26,093	947,036	1,906,531	67,320	1,973,851
2029	8,481	369,187	156,281	268,645	816,279	136,986	2,711	6,047	953,265	28,630	981,895	1,969,837	73,865	2,043,702
2030	8,693	378,183	160,578	285,769	847,932	136,986	2,801	6,248	984,918	30,219	1,015,137	2,033,768	77,965	2,111,733
2040	11,128	493,277	195,431	456,110	1,187,498	136,986	3,767	6,451	1,324,484	52,240	1,376,724	2,648,968	134,779	2,783,747

(1) Based on 2.5 percent RSA population increase, consistent with Table 2.13.

(2) All consumption projections based on Golder water projections detailed Water Demand Projections Memorandum located in Appendix F.

(3) The daily equivalent of 50 million gallons per year of water loss via DSL.

(4) The sum of DSL and Total Consumption.

(5) Based on a Peak Day Production to Average Day Production ratio of 2.0 from Table 2-12.

(6) Based on a PHD to Peak Day Production ratio of 2.0.

(7) Number of ERUs = Average day production/ERU_{ADD} Where ERU_{ADD} = 158 gpd (as shown in Table 2-8).

(8) Includes Alpine Water Association demand as they are presently billed as a single 2-inch multi-family unit.

CHAPTER 3

SYSTEM ANALYSIS

Water system planning is based on an analysis of a water utility's ability to meet minimum level of service standards for existing and future customers. This chapter first outlines the design standards developed to meet criteria specific to the City of North Bend water system. These standards are then followed by a water quality and facility analysis comparing these design standards to the existing water quality and system facilities. This comparison will help identify water system deficiencies and inform recommendations and projects to improve standard compliance.

SYSTEM DESIGN STANDARDS

Performance and design criteria typically address the sizing and reliability requirements for source, storage, distribution, fire flow and water quality. Construction standards set forth the materials and construction methods that contractors, developers, and the City must follow when constructing water system facility improvements. Construction standards, including developer extension guidelines, have been developed for the City and are provided in Appendix G. When any water system work is performed outside of City limits and within King County right-of-way, the applicable King County Standards must be followed. These can be obtained through the County. In this chapter, the design standards are divided between two categories: general facility standards and water quality standards and are discussed below as follows:

GENERAL FACILITY STANDARDS

1. Average and Peak Day Flow
2. Peak Hour Flow
3. Storage Requirements
4. Minimum System Pressure
5. Minimum Pipe Sizes
6. Backup Power Requirements
7. Valve and Hydrant Spacing

WATER QUALITY STANDARDS

1. Applicable Drinking Water Regulations
2. Existing Drinking Water Quality Standards
3. Anticipated Future Drinking Water Quality Standards
4. Water Quality Monitoring Schedule

GENERAL FACILITY STANDARDS

The Washington State Department of Health (DOH) relies on various publications, agencies, and the utility itself to develop and establish design criteria.

WAC 246-290-200, Design Standards, lists the various criteria allowed by the DOH. A brief description of the most widely recognized performance and design standards follows. Table 3-1 provides a summary of the minimum allowable design standards. Table 3-2 provides a comparison between the DOH Waterworks Standards and the City of North Bend standards with regard to general facility requirements.

- *Water System Design Manual*, Washington State Department of Health (DOH), (October 2019)

This manual serves as a guideline for the preparation of plans and specifications for Group A public water systems in compliance with WAC 246-290.

The City's Design and Construction Standards for Water Systems are provided in Appendix K. Any work completed in King County rights-of-way shall also comply with the 2016 King County Road Standards, including any amendments or revisions. In the event of a conflict between these standards the one which provides for a higher level of public safety shall take precedence.

TABLE 3-1

Published References of Water System Design Standards

Standard and Authority	Source Development	Booster Pump Stations	Distribution	Storage
Group A Public Water System Design Manual, 2019.	<p>The quantity of water at the source should:</p> <ul style="list-style-type: none"> Have sufficient capacity and water rights to meet maximum day demand (MDD) while concurrently replenishing depleted fire suppression within a 72-hour period. Sources capable of supplying MDD within a 24-hour period. 	<ul style="list-style-type: none"> Booster pumping facilities shall be designed to accommodate at least the next 10 years of system development. Standby power must be considered for all new closed system booster pump stations. A manual transfer may be sufficient if it can occur within a reasonable time according to established operating procedures. Booster pump design capacity must take into account fire flow requirements. 	<ul style="list-style-type: none"> Minimum main diameter must be determined by hydraulic analysis. Minimum diameter of all distribution mains shall be 6-inch for fire flow systems. Smaller diameter mains may be justified for non fire flow systems. New systems or additions shall provide the design quantity at 30 psi minimum under peak hourly demand at all points in the distribution system. Required fire flow must be provided in addition to MDD at a minimum of 20 psi. 	<ul style="list-style-type: none"> Storage capacity calculations must consider the sum of: <ol style="list-style-type: none"> Operational storage, as needed to control pump cycling. Equalizing storage, $ES = (PHD - Q_s)(150 \text{ min})$ <ul style="list-style-type: none"> ES = Equalizing storage PHD = Peak hour demand Standby Storage, $SB = (N) * (SB_i)$ <ul style="list-style-type: none"> SB = Total standby storage component, or equivalent. $SB_i = ERU_{MDD}$ N = Number of ERUs Fire Suppression Storage, $FSS = (FF) (T_m)$ <ul style="list-style-type: none"> FF = Required fire flow rate T_m = duration of fire flow rate

TABLE 3-2
General Facility Requirements

Standard	DOH Water System Design Manual	City of North Bend Standard
Average Day and Peak Day Demand	Average day demand should be determined from previous actual water use data. Maximum day demand is estimated at 1.35 to 1.65 times the maximum month's average day demand if daily metered data is not available.	Average day demand is determined using consumption and production data from 2009 to 2019. Maximum day demand was determined by examining peak day production for the last ten years. An average peaking factor of 1.93 was identified, though a more conservative factor of 2.0 is used.
Peak Hour Demand	<p>Peak hour demand is determined using the following equation: $PHD = ERU_{MDD}/1440 * (C*N + F) + 18$</p> <ul style="list-style-type: none"> ○ PHD = Peak hourly demand (gpm) ○ ERU_{MDD} = Daily demand per ERU, calculated using peak day single-family housing unit demand (gpd) ○ C = Coefficient * ○ F = Factor of range* ○ N = Number of ERUs, calculated using peak day demand and ERU_{MDD} <p>*From Table 3-1 of DOH Water System Demand Manual.</p>	Peak hour demand is determined using the peaking factor calculated using the DOH Water System Design Manual equation outlined in the neighboring cell. The City used the value of 2.05 that was calculated from its data.
Storage	<p>The sum of:</p> <ul style="list-style-type: none"> • Operational Storage (OS) • Equalizing Storage (ES) • Standby Storage (SB) * • Fire Suppression Storage (FSS), if applicable* • Dead Storage (DS) <p>*Standby storage and fire suppression storage may be nested if permitted by the local fire authority.</p>	<p>The sum of:</p> <ul style="list-style-type: none"> • Operational Storage (OS) • Equalizing Storage (ES) • Standby Storage (SB) • Fire Suppression Storage (FSS), if applicable • Dead Storage (DS) <p>Refer to storage analysis in Chapter 3 for further details.</p>
Minimum Pipe Sizes	The minimum size for a transmission line shall be determined by hydraulic analysis. The minimum size distribution system line shall not be less than 6 inches in diameter unless a hydraulic analysis justifies another size.	The minimum size for a transmission line shall be determined by hydraulic analysis. The minimum size distribution system shall not be less than 6 inches in diameter.
Minimum System Pressure	The system should be designed to maintain a minimum of 30 psi in the distribution system under peak hour demand when all operational and equalizing storage is depleted, and 20 psi under fire flow plus maximum day demand conditions when all fire suppression storage is depleted.	The system should be designed to maintain a minimum of 30 psi in the distribution system under peak hour demand when all operational and equalizing storage is depleted, and 20 psi under fire flow plus maximum day demand conditions when all fire suppression storage is depleted.

TABLE 3-2 – (continued)
General Facility Requirements

Standard	DOH Water System Design Manual	City of North Bend Standard
Valve and Hydrant Spacing	<ul style="list-style-type: none"> • Sufficient valving to minimize customer service disruption when water is turned off for maintenance or repair at a minimum of 800 feet. • Fire hydrants should be provided with their own auxiliary gate valve. 	Valve and hydrant standards are outlined in the City's Design and Construction Standards for Water Systems, given in Appendix G.
Reliability Recommendations	<ul style="list-style-type: none"> • Sources should be capable of replenishing fire suppression storage within a 72-hour period while concurrently supplying MDD. • Sources capable of supplying MDD within a 20-hour period. • Sources must meet ADD with largest source out of service. • If water system power is unreliable, one of more of the following measures should be adopted: <ul style="list-style-type: none"> ○ In place auxiliary power, connect pump station to different substations (when available), ○ Construct adequate gravity standby storage, ○ Connect to two independent primary public power sources. • Provision of multiple storage tanks. • Low and high level storage alarms. • Looping of distribution mains when feasible. • Pipeline velocities not >8 fps at PHD. • Flushing velocities of 3 fps for all pipelines. 	<ul style="list-style-type: none"> • Two or more sources capable of replenishing fire suppression storage within a 72-hour period. • Sources must meet ADD with largest source out of service. • Back-up power equipment for pump stations unless there are two independent public power sources. • Provision of multiple storage tanks. • Low and high level storage alarms. • Looping of distribution mains when feasible. • Pipeline velocities not >8 fps at PHD.

WATER QUALITY STANDARDS

APPLICABLE DRINKING WATER QUALITY REGULATIONS

Water quality monitoring is an important part of both regulatory compliance and water system oversight. Table 3-3 lists the existing and future drinking water regulations and the status of each regulation. Some regulations are not included, as they do not apply to the City's water system. For example, filter Backwash Water Rule is not listed nor is it applicable or discussed.

Existing state law contains regulations for bacteriological contaminants, inorganic chemicals and inorganic physical parameters (IOCs), volatile organic chemicals (VOCs), synthetic organic chemicals (SOCs), radionuclides, total trihalomethanes (TTHMs) and haloacetic acids (HAA5s).

Many of the regulations shown in Table 3-2 define water quality standards and establish water quality monitoring schedules. The implementation schedules for the regulations are subject to revision and the City should continue to stay informed regarding regulatory deadlines.

TABLE 3-3

Drinking Water Regulations⁽¹⁾

Drinking Water Regulation ⁽¹⁾	Contaminants Affected ⁽²⁾	City Action
Revised Total Coliform Rule	Coliform	Monitoring
Stage 1 Disinfectants/Disinfection Byproducts Rule (D/DBPR)	TTHMs, HAA5, Chlorite, Bromate	Monitoring
Residual Disinfectant	Total Free Chlorine	Monitoring
Lead and Copper Rule	Lead, Copper	Monitoring
Inorganic Chemicals and Physical Parameters	IOCs	Monitoring
Volatile and Synthetic Organic Compounds	VOCs, SOCs	Monitoring
Surface Water Treatment Rule	Microbial Contaminants	Not Applicable
Information Collection Rule	Bacteriological	Not Applicable
Consumer Confidence Report	Reporting Only	Reporting
Unregulated Contaminant Monitoring Rule	IOCs, VOCs, SOCs	Monitoring
Asbestos	Asbestos	Monitoring
Arsenic Rule	Arsenic	Monitoring
Radionuclide Rule	Radionuclides	Monitoring
Arsenic Rule	Arsenic	Monitoring
Groundwater Rule	Bacteriological	Monitoring
Stage 2 Disinfection/Byproducts Rule	Additional public health protection from DBP and microbial pathogens	Monitoring

(1) Drinking water regulations as of January 2020.

- (2) TTHM = Total Trihalomethanes; HAA5 = Five Haloacetic Acids; IOCs = Inorganic Chemical and Physical Characteristics; VOCs = Volatile Organic Chemicals; SOCs = Synthetic Organic Compounds

WATER QUALITY STANDARDS AND ANALYSIS

Minimum standards for water quality are specified in terms of Maximum Contaminant Levels (MCLs). Primary MCLs are based on chronic and/or acute human health effects. Secondary MCLs are based on factors other than health effects, including aesthetics. MCLs are specified in WAC 246-290 and described in the following pages and tables. Water quality data and a monitoring schedule are presented later in this chapter.

REVISED TOTAL COLIFORM RULE

Description

Coliform bacteria describe a broad category of organisms routinely monitored in potable water supplies. Though not all coliform bacteria are pathogenic in nature, they are relatively easy to identify in laboratory analysis and they represent an indicator organism. If coliform bacteria are detected, then pathogenic organisms may also be present. Bacterial contamination in a water supply can cause a number of water borne diseases, so these tests are strictly monitored and regulated by the DOH.

WAC 246-290 establishes bacteriological testing requirements for public water systems. Compliance with this rule is based on the presence/absence of total coliforms. The number of routine samples required depends on the system size.

The Revised Total Coliform Monitoring Rule specifies each total coliform positive routine sample must be tested for the presence of *E. coli*.; if any total coliform positive sample is also *E. coli*. positive, then the sample must be reported to the state by the end of the day. If a routine sample is positive for total coliform, repeat samples are required.

Within 24 hours of learning of the total coliform positive sample result, at least three repeat samples must be collected and analyzed for total coliform. One repeat sample must be collected from the same tap as the original sample, one repeat sample must be collected within five service connections upstream, and one repeat sample must be collected within five service connections downstream. If one or more repeat sample is positive for total coliform, the sample must be analyzed for *E. coli*. If the total coliform positive sample is positive for *E. coli*, the sample must be reported to the state. Another set of repeat samples must then be collected unless an assessment has been triggered and the state has been notified.

Monitoring Requirements and Analysis

The City monitors for bacteriological contaminants in accordance with its Water Quality Monitoring Plan, which is included in Appendix H. The number of required monthly

samples is provided annually from DOH on the Water Quality Monitoring Report. Samples are collected to cover each pressure zone, reservoir outfall, and source distribution area. The monitoring program specifies the collection of samples on a rotating basis, such that the sites are resampled each quarter. Regulations for bacteriological testing schedule are given in WAC 246-290-300(3). The City is required by DOH to collect six routine coliform samples per month.

The City had no coliform violations between 2009 and 2019.

Residual Disinfectant

Water in the distribution system must maintain a residual disinfectant concentration of at least 0.2 mg/L. For groundwater systems that are required to disinfect, systems are required to have a CT (concentration of chlorine (mg/l) multiplied by contact time (min)) of 6 in accordance with WAC 246-260-451. Residual disinfectant concentration within the distribution system is measured at the same time and location that routine coliform samples are collected.

The City has been in compliance with its residual disinfectant standards.

CONSUMER CONFIDENCE REPORT

Description and Requirements

The Consumer Confidence Report Rule requires community water system purveyors to prepare and distribute an annual report of water quality analyses to their customers. The City is required to submit the report to its customers by the 1st of July each year. A copy of the City's 2019 *Annual Water Quality Report* is included in Appendix H.

INORGANIC PHYSICAL AND CHEMICAL CHARACTERISTICS

Description

WAC 246-290-310 specifies primary and secondary MCLs for inorganic physical and chemical characteristics. Primary MCLs are based on health effects, and secondary MCLs are based on factors other than health effects, such as aesthetics. Three chemicals, lead, copper, and sodium do not have primary or secondary MCLs, but are required to be monitored along with other IOCs. Lead and copper are regulated under the Lead and Copper Rule, described in detail later in this chapter. Primary and secondary MCLs for inorganic chemical and physical characteristics are summarized in Tables 3-4 and 3-5, respectively.

TABLE 3-4

Primary Water Quality Standards Inorganic Chemical Characteristics

Chemical	Primary MCL
Antimony (Sb)	0.006 mg/L
Arsenic (As)	0.01 mg/L
Asbestos	7 million fibers/liter (length > 10 microns)
Barium (Ba)	2.0 mg/L
Beryllium (Be)	0.004 mg/L
Cadmium (Cd)	0.005 mg/L
Chromium (Cr)	0.1 mg/L
Copper (Cu)	1.3 mg/L (Action Level, EPA)
Cyanide (HCN)	0.2 mg/L
Fluoride (F)	4.0 mg/L
Lead (Pb)	0.015 mg/L (Action Level, EPA)
Mercury (Hg)	0.002 mg/L
Nickel (Ni)	0.1 mg/L
Nitrate (as N)	10.0 mg/L
Nitrite (as N)	1.0 mg/L
Selenium (Se)	0.05 mg/L
Sodium (Na)	20 mg/L (EPA recommendation)
Thallium (Tl)	0.002 mg/L

Source: WAC 246-290-310.

TABLE 3-5

**Secondary Water Quality Standards Inorganic
Chemical and Physical Characteristics**

Chemical/Characteristic	Secondary MCL
Chloride (Cl)	250.0 mg/L
Fluoride (F)	2.0 mg/L
Iron (Fe)	0.3 mg/L
Manganese (Mn)	0.05 mg/L
Silver (Ag)	0.1 mg/L
Sulfate (SO ₄)	250.0 mg/L
Zinc (Zn)	5.0 mg/L
Color	15 Color Units
Specific Conductivity	700 umhos/cm
Total Dissolved Solids (TDS)	500 mg/L

Source: WAC 246-290-310.

Monitoring Requirements and Analysis

Groundwater sources must be sampled for inorganics once every 3 years, unless a monitoring waiver is granted by DOH. Nitrate samples are required annually and nitrite samples are required once every three years. Because nitrates and nitrites are included in Inorganic Chemical (IOC) sampling, additional individual samples are not required in years when an IOC is taken from the source.

The City has a monitoring waiver for IOCs allowing for less frequent testing of inorganics, with the exception for lead, copper, and nitrates. Samples from the Centennial Well and Mount Si Spring were most recently tested for IOC samples in August of 2011. Table 3-6 provides results only for IOCs above the state reporting limit. Sample parameters that were listed as “not detected” or “less than” by the laboratory are omitted from the table.

No samples exceeded the primary or secondary EPA standards.

TABLE 3-6

Inorganic Source Water Quality⁽¹⁾

Parameter	MCL	Spring Pump Station Faucet	Centennial Well	Units
EPA Regulated Primary Standards				
Arsenic	0.01	0.0072	0.0024	mg/L
Nitrate	10.0	0.51	0.50	mg/L
Nitrate & Nitrite	10.0	0.51	0.50	mg/L
EPA Regulated Secondary Standards				
Sulfate	250	10	50	mg/L
Hardness (as CaCO ₃)	N/A	35	83	mg/L
Conductivity	700	90	180	umhos/cm
Turbidity	1	0.12	0.27	NTU
Color	15	5	5	Unit
Other Tested Parameters				
pH	N/A	6.4	7	Unit
Alkalinity (as CaCO ₃)	N/A	24	N/A	mg/L
Calcium	N/A	14	27	mg/L
Magnesium	N/A	1.5	3.9	mg/L
Silica as SiO ₂	N/A	11	N/A	mg/L

(1) Those parameters that were not detected above state reporting limits are omitted from this table.

ARSENIC

Description

Long-term exposure to low concentrations of arsenic in drinking water can lead to skin, bladder, lung, or prostate cancer. Non-cancer effects of ingesting arsenic at low levels include cardiovascular disease, diabetes, and anemia, as well as reproductive, developmental, immunological, and neurological effects. The EPA's Arsenic MCL is 0.01 mg/L.

Monitoring Requirements and Analysis

The Arsenic Rule makes monitoring requirements consistent with monitoring for other IOCs. Groundwater sampling for arsenic is required once every 3 years. Any system that has a sampling point monitoring result exceed the MCL must increase the frequency of monitoring at that sampling point to quarterly sampling. Compliance with the MCL is based on the running annual average of the samples. Systems triggered into increased monitoring are not be considered in violation of the MCL until they have completed 1 year of quarterly sampling. However, if any sample result will cause the running annual average to exceed the MCL at any sampling point, the system is out of compliance with the MCL immediately.

IOC sample analyses were taken most recently in 2016 and 2019. In 2019 arsenic levels at Mount Si Springs were 0.0072 mg/l and 0.0024 mg/L the centennial well. Both values were below the 0.01 mg/l MCL.

VOLATILE ORGANIC COMPOUNDS AND SYNTHETIC ORGANIC COMPOUNDS

Description

Volatile organic chemicals (VOCs) are manufactured, carbon-based chemicals that vaporize quickly at normal temperatures and pressures. VOCs include many hydrocarbons associated with fuels, paint thinners, and solvents. This group does not include organic pesticides, which are regulated separately as synthetic organic chemicals (SOCs). VOCs are divided into the two following groups:

1. Regulated VOCs that have been determined to post a significant risk to human health.
2. Unregulated VOCs for which the level of risk to human health has not been established.

There are currently 21 regulated volatile organic Chemicals (VOCs) and 33 regulated Synthetic Organic Chemicals (SOCs). A list of these compounds and their MCLs is included in Tables 3-7 and 3-8.

Monitoring Requirements and Analysis

Per the DOH requirements, SOCs and VOCs must be sampled once every 3 years, unless a waiver is in place. The City had an SOC and VOC monitoring waiver for 2014, but was required to sample at both Mount Si Springs and the Centennial well in 2011 and 2014. No VOCs or SOCs were detected during any of the analyses.

TABLE 3-7

Regulated Synthetic Organic Chemicals (SOC)

Synthetic Organic Chemical	Federal Regulation	Primary MCL (mg/L) ⁽¹⁾
Arochlor	Phase II	0.002
Aldicarb	Phase II ⁽²⁾	0.003
Aldicarb sulfone	Phase II ⁽²⁾	0.003
Aldicarb sulfoxide	Phase II ⁽²⁾	0.004
Atrazine	Phase II	0.003
Carbofuran	Phase II	0.04
Chlordane	Phase II	0.002
Dibromochloro-propane	Phase II	0.0002
2,4-D	Phase II	0.07
Ethylene dibromide	Phase II	0.00005
Heptachlor	Phase II	0.0004
Heptachlor epoxide	Phase II	0.0002
Lindane	Phase II	0.0002
Methoxychlor	Phase II	0.04
Polychlorinated biphenyls (PCBs)	Phase II	0.0005
Pentachlorophenol	Phase II	0.001
Toxaphene	Phase II	0.003
2,4,5-TP	Phase II	0.05
Benzo(a)pyrene	Phase V	0.0002
Dalapon	Phase V	0.2
Di(2-ethylhexyl) adipate	Phase V	0.4
Di(2-ethylhexyl) phthalate	Phase V	0.006
Dinoseb	Phase V	0.007
Diquat	Phase V	0.02
Endothall	Phase V	0.1
Endrin	Phase V	0.002
Glyphosate	Phase V	0.7
Hexachlorobenzene	Phase V	0.001

TABLE 3-7 – (continued)

Regulated Synthetic Organic Chemicals (SOC)

Synthetic Organic Chemical	Federal Regulation	Primary MCL (mg/L)⁽¹⁾
Hexachloro Cyclopentadiene	Phase V	0.05
Oxamyl (vydate)	Phase V	0.2
Picloram	Phase V	0.5
Simazine	Phase V	0.004
2,3,7,8-TCDD (dioxin)	Phase V	3x10-8

(1) 40 CFR 141.61(a) & (c); adopted by State Board of Health.

(2) Delayed; reproposal of MCLs for aldicarb compounds expected in the future.

TABLE 3-8

Regulated Volatile Organic Chemicals (VOC)

Volatile Organic Chemical	Federal Regulation	Primary MCL (mg/L)⁽¹⁾
Vinyl Chloride	Phase I	0.002
Benzene	Phase I	0.005
Carbon Tetrachloride	Phase I	0.005
1,2-Dichloroethane	Phase I	0.005
Trichloroethylene	Phase I	0.005
para-Dichlorobenzene	Phase I	0.075
1,1-dichloroethylene	Phase I	0.007
1,1,1-Trichloroethane	Phase I	0.2
cis-1,2-Dichloroethylene	Phase II	0.07
1,2-Dichloropropane	Phase II	0.005
Ethylbenzene	Phase II	0.7
Monochlorobenzene	Phase II	0.1
Ortho-Dichlorobenzene	Phase II	0.6
Styrene	Phase II	0.1
Tetrachloroethylene	Phase II	0.005
Toluene	Phase II	1
Trans-1,2-Dichloroethylene	Phase II	0.1
Xylenes (total)	Phase II	10
Dichloromethane	Phase V	0.005
1,2,4-Trichloro-benzene	Phase V	0.07
1,1,2-Thrichloro-ethane	Phase V	0.005

(1) 40 CFR 141.61(a) & (c); adopted by State Board of Health.

ASBESTOS

Asbestos is the name for a group of naturally occurring, hydrated silicate minerals with fibrous morphology. Included in this group are chrysotile, corcidolite, amosite, and the fibrous varieties of anthophyllite, tremolit, and actinolite. Most commercially mined asbestos is chrysotile. Asbestos' flexibility, strength, and chemical and heat resistance properties that have adapted it to many uses including building insulation, brake linings, and water pipe.

There is concern with the health risks associated with asbestos. Several studies and case histories have documented the hazards to internal organs as a result of inhalation of asbestos fibers. Data is limited on the effects of ingestion of asbestos fibers or on the effects of inhalation exposure from drinking water. Ingestion studies have not caused cancer in laboratory animals, although studies of asbestos workers have shown increased rates of gastrointestinal cancer.

Monitoring Requirements and Analysis

The City of North Bend's distribution system contains asbestos cement waterlines; therefore, it is required to monitor for asbestos. For utilities with asbestos pipe in the distribution system, one sample in an area with AC pipe is required every 9 years in accordance with Part 40 Code of Federal Regulations 141.23 (b). The MCL for asbestos is 7 million fibers/liter. Asbestos analysis was carried out in May of 2019 and a concentration of 0.1210 million fibers/liter was detected, well below the MCL.

LEAD AND COPPER

Description

In 1991, the EPA promulgated the Federal Lead and Copper Rule. The State of Washington adopted this rule in 1995, with minimal changes. The Lead and Copper Rule is intended to reduce the tap water concentrations of lead and copper that can occur when corrosive source water causes lead and copper to leach from water meters and other plumbing fixtures.

Monitoring Requirements and Analysis

Based on the requirements of the EPA Lead and Copper Rule (40 CFR 141), initially lead and copper monitoring was to be completed for two consecutive 6-month monitoring periods. If lead and copper action levels were not exceeded, then the number of samples was reduced to one-half the original number for three consecutive annual periods. If compliance with the action level was maintained, reduced sampling continued once every 3 years thereafter.

Ninety percent of the distribution system lead samples collected according to the procedures outlined in WAC 246-290 must have concentrations below the “Action Level” of 0.015 mg/L. Similarly, 90 percent of the copper samples must have concentrations less than 1.3 mg/L. Systems exceeding the action levels are required to provide public notification and implement a program for reducing lead and copper levels.

The City took lead and copper samples in 2011, 2014, and 2017. All samples were below the action levels for both lead and copper. In 2017, 90 percent of the distribution system lead concentration were at or below 0.0033 mg/L while 90 percent of the copper levels were at or below 0.14 mg/L.

RADIONUCLIDES AND RADON

Description

Radionuclides include radioactive substances occurring naturally in subsurface waters. Regulated substances include radium-226, radium-228, uranium, and gross alpha and beta particles. Table 3-9 summarizes radionuclide MCLs as defined by EPA’s Radionuclide Rule, WAC 246-290-310(7), and 40 CFR 141.66.

TABLE 3-9

Radionuclide MCLs

Radionuclide	MCL
Combined Radium -226 and -228	5 pCi/L
Uranium	30 µg/L
Gross Alpha (excluding uranium and radon)	15 pCi/L
Gross Beta	4 millirem/year

Monitoring Requirements and Analysis

WAC 246-290-300(10) and 40 CFR 141.26 require radionuclide samples at a frequency determined by initial sampling. North Bend’s initial sampling showed no radionuclides at levels above the detection limits. This corresponds to a reduced sampling frequency of 9 years. A gross alpha particle activity measurement may be substituted for the required radium-226 and radium-228 analysis provided that the measured gross alpha particle activity does not exceed 5 pCi/L at a confidence level of 95 percent.

The Mount Si Springs and Centennial Well were tested for radionuclides in 2012 and 2016. No samples from either test dates yielded radionuclides levels above the state reporting limits.

DISINFECTANTS AND DISINFECTION BYPRODUCTS RULE

Description

WAC 246-290-300(6) requires purveyors of public systems that provide water treated with chemical disinfectants to monitor for disinfectants and disinfection byproducts. The D/DBP Rule establishes residual disinfectant concentrations and MCLs for disinfection byproducts. Trihalomethanes (THMs) and haloacetic acids (HAA5) are a group of organic compounds that can be formed as a result of drinking water disinfection by chlorine and are, therefore, often referred to as disinfection byproducts. Total THMs include the sum of the concentrations of four disinfection byproducts: chloroform, bromoform, bromodichloromethane, and dibromochloromethane.

Monitoring Requirements and Analysis

Stage 1 of the D/DBP Rule was published in November 1998 and became effective in 2000. Under Stage 1 of the D/DBP Rule, the MCLs for TTHM and HAA5 is 80 micrograms per liter ($\mu\text{g/L}$) and 60 $\mu\text{g/L}$, respectively, and is based on the running annual average of two annual samples. Systems are required to prepare and implement a disinfection byproducts monitoring plan. The City's disinfection byproducts monitoring plan is included in the Water Quality Monitoring Plan in Appendix H. The Stage 1 D/DBP Rule remained in effect for compliance until October 1, 2013.

TTHM and HAA5 samples were last taken at the Arrive development in August of 2012 and 2013. All Stage 1 samples were below the established MCLs.

Stage 2 of the D/DBP Rule was published in January 2006 and compliance with the new regulations began on October 1, 2013. Under Stage 2 of the D/DBP Rule, the MCLs for TTHM and HAA5 remain 80 $\mu\text{g/L}$ and 60 $\mu\text{g/L}$, respectively; however, compliance with the MCL is based on the running annual average of each individual sample site instead of the running annual average of all samples combined. The number of samples taken is dependent on the population served. Systems serving between 500 and 9,999 people must collect two samples per year and systems serving between 10,000 and 99,999 people must collect four samples per quarter. Test results from August 2018 for HAA5 indicate levels ranging from below the detection limit to 1.54 $\mu\text{g/L}$ while test results for TTHM indicate levels ranging from below the detection limit to 3.1 $\mu\text{g/L}$. All test results are well below the respective MCLs.

Sampling locations were determined in the Initial Distribution System Evaluation (IDSE), unless the City is eligible for a 40/30 certification. This certification is granted to systems which all Stage 1 D/DBP sample results are below 40 $\mu\text{g/L}$ for TTHM and 30 $\mu\text{g/L}$ for HAA5 and has no monitoring violations. The City has applied for and received this certification. The City's Disinfection Byproducts Monitoring Plan can be found in Appendix H.

GROUNDWATER RULE

The Groundwater Rule (GWR) is one of the requirements of the 1994 Amendments to the Safe Drinking Water Act. The final rule was published on November 8, 2006, and applies to all water systems that use groundwater as a source of supply. The GWR initially requires two actions: the state must conduct a sanitary survey to assess contamination risks and the purveyor must conduct a source water assessment. The source water assessment is required for systems that do not provide 99.99 percent (4-log) inactivation or virus removal and has a positive total coliform sample under the Total Coliform Rule. The assessment must identify the presence of *E. coli*, enterococci, and coliphage at each source. The state can also require systems to conduct a source water assessment at any time.

Depending on the results of the source water assessment, corrective action may be required and may include disinfection. The City currently disinfects water from Mount Si Springs with piping that provides a CT of 6. The Centennial Well source is chlorinated to maintain a residual in the distribution system.

Because the City does not currently provide 4-log treatment of viruses at the Centennial Well source, the City will use triggered monitoring to comply with the Groundwater Rule. Because both of the City's sources feed all zones in the water system, triggered samples from both sources will be tested for *E. Coli* when a distribution sample tests positive for total coliform.

FACILITY ANALYSIS

SOURCE ANALYSIS

A description of the City's sources of supply was provided in Chapter 1. According to Department of Health Group A Public Water Systems Waterworks Standards, source production capacity must be sufficient to supply peak day demands. Additionally, peak day and average daily demands must comply with the maximum instantaneous and maximum annual withdrawal limitations of associated water rights. The City of North Bend must also manage unique source constraints which include minimum bypass flows at Mount Si Springs and mitigation measures while using Centennial Wells during periods of low instream flow in the Snoqualmie River.

Source Availability

The City of North Bend receives water from two sources: Mount Si Spring and the Centennial Well. Both sources are treated by chlorination and then pumped to the City's distribution system.

Mount Si Spring is a spring whose water right allows for the maximum instantaneous withdrawal rate of 3.2 million gallons per day and maximum annual withdrawal rate of

336 acre-feet. 3.0 cfs bypass must be maintained at all times above the point of diversion.

The Centennial Well is a groundwater source located on the Public Works Shop property. The City has a water right to withdraw 3,094 acre-ft per year from the well, with a maximum instantaneous withdrawal of 2,646 gpm.

The annual and instantaneous water rights analysis are summarized in Table 3-10. The projected annual withdrawal corresponds to the yearly sum of average day production for the RSA and wholesale demands from Table 2-15. The instantaneous withdrawal requirements correspond to the sum of the RSA and wholesale peak day production from Table 2-15.

TABLE 3-10
Water Rights Evaluations

Year	Annual Withdrawal			Instantaneous Withdrawal		
	Allowed by Water Right (acre-ft)	Projected Withdrawal (acre-ft) ⁽³⁾	Surplus/Deficit (acre-ft)	Instantaneous Water Right (gpd)	Peak Day Production Requirement (gpd) ⁽⁴⁾	Production Capacity Surplus/Deficit (gpd)
2019 ⁽¹⁾	3,430	613	2,817	7,010,240	1,132,000	5,878,240
2020 ⁽²⁾	3,430	784	2,646	7,010,240	1,399,816	5,610,424
2030	3,430	1,139	2,291	7,010,240	2,111,733	4,898,507
2040	3,430	1,484	1,946	7,010,240	2,783,748	4,226,492

(1) Actual withdrawal.

(2) No wholesale water sales, Wholesale water sales begin in 2021.

(3) Yearly sum of the City of North Bend's RSA and Sallal Average day wholesale demands (see Tables 2-15 and 2-16).

(4) Includes the City of North Bend's RSA and Sallal peak day wholesale demands (see Tables 2-15 and 2-16).

The City has adequate annual and instantaneous water rights to supply both the forecasted RSA and Sallal wholesale water demands. This analysis does not, however, guarantee that the instream source conditions for water withdrawal are always be met. If or when a wholesale water agreement between the City of North Bend and Sallal is finalized, the City's water production must continue to meet constraints resulting from instream flows. The future wholesale water agreement will have to have protocols for managing these constraints and will be reflected in the City's water mitigation plan which will likely be derived from the Golder model and algorithm. Additional discussion concerning the ramifications of a potential wholesale water agreement, including the possibly of the City purchasing mitigation water from Sallal, can be found in the Golder Memorandum in Appendix F.

Source Production Capacity and Reliability Analysis

Table 3-11 compares the production capacity of the water supply for 20 hours of source pumping with projected maximum day demand requirements of the City and maximum day Sallal wholesale demand until the year 2040.

TABLE 3-11

Source Pumping Capacity Analysis (All Sources)

Year	20-Hour Source Pumping Capacity (gpd)⁽¹⁾	Peak Day Production Requirement (gpd)⁽²⁾	Production Capacity Surplus/Deficit (gpd)
2020 ⁽³⁾	4,800,000	1,399,816	3,400,184
2030	4,800,000	2,111,733	2,688,267
2040	4,800,000	2,783,748	2,016,252

- (1) Includes both the Mount Si Springs (1,500 gpm) and Centennial Well (2,500 gpm) pumping capacity. Note: Mount Si Springs pumping capacity is limited to 1,500 gpm, rather than 2,000 gpm pump capacity due to transmission limitation discussed in Chapter 1 and confirmed in Mount Si Springs pump test on July 13, 2020.
- (2) Includes the City of North Bend's RSA and Sallal peak day wholesale demands (See Table 2-15).
- (3) No wholesale water sales, Wholesale water sales begin in 2021.

The City of North Bend has sufficient source production pump capacity to meet its peak day requirements through the 2040.

The use of Mount Si Springs and the Centennial Well do come with constraints which impact each source's reliability in different ways. The Mount Si Springs water right stipulates that 3.0 cubic feet per second (cfs) or 1,346 gpm, must bypass the pumping facility whenever water is withdrawn. Seasonal fluctuations in Mount Si Springs bypass flows typically result in summer weeks where springs production is drastically curtailed and the City relies largely on the Centennial Well.

The City installed variable frequency drives (VFDs) at the Mount Si Springs Booster Station in 2017 in order to increase flexibility and better manage bypass requirements. These VFDs allow the City to vary the pumping rate and has allowed the City to better comply with water rights requirements when total spring flows fall below 2,000 gpm. Seasonal low flows at Mount Si Springs typically occur in September which coincides with days of peak water demand.

Mount Si Springs withdrawal capacity is limited by the spring's minimum bypass flow requirement. When flow over the weir is below 3 cubic feet per second, the source cannot be used. Given the source limitation of Mount Si Springs, it is worth analyzing whether the pumping capacity of the Centennial Well alone could provide adequate capacity to supply City and Sallal wholesale maximum day demand through 2040. This capacity analysis is summarized in Table 3-12 below.

TABLE 3-12**Source Pumping Capacity (Centennial Well Alone)**

Year	20-Hour Source Pumping Capacity (gpd)	Peak Day Production Requirement (gpd)⁽²⁾	Production Capacity Surplus/Deficit (gpd)
2020 ⁽¹⁾	3,000,000	1,399,816	1,600,184
2030	3,000,000	2,111,733	888,267
2040	3,000,000	2,783,748	216,252

(1) Includes the City of North Bend's RSA and Sallal peak day wholesale demands (see Table 2-15).

(2) No wholesale water sales. Wholesale water sales begin in 2021.

The City's source capacity using the Centennial Well alone is adequate to provide both City and Sallal wholesale maximum day demand through the end of the 2040 planning period.

Similar to Mount Si Springs, the Centennial Well has restrictions on its use. The Centennial Well hydraulically connected to the Snoqualmie River. As a result, when well water is withdrawn during periods of low instream Snoqualmie River flow, mitigation water must be supplied as a condition of the water right permit. At present mitigation water is conveyed from Hobo Springs to Boxley Creek, a Snoqualmie river tributary. A summary of the yearly totals (from 2010 to 2019) of mitigation water conveyed to Boxley Creek can be found in Table 3-13 below.

TABLE 3-13**Total Mitigation Water Use**

Year	Mitigation Water (MG)
2010	19.42
2011	10.96
2012	26.81
2013	31.00
2014	20.56
2015	67.89
2016	17.80
2017	59.15
2018	42.79
2019	33.78

At present, the City operates a single Mitigation Source, Hobo Springs. The use of this source is governed by the City's contract with Seattle Public utilities (SPU) and the supply varies year-by-year as Spring production is correlated directly SPU's Masonry Pool operations. Hobo Springs reached its capacity limit in the summer of 2015 due to a prolonged summer drought. Additional mitigation sources and conservation measures

shall be discussed in the system deficiencies section of this chapter.

Disinfection

The City disinfects water from both of its sources using chlorine. Chlorine gas is used to chlorinate water from Mount Si Springs, while sodium hypochlorite is used to chlorinate water from the Centennial Well.

Mount Si Springs water is disinfected to a CT of 6 at the Mount Si Springs source. This is achieved via a 24-inch, 775-foot pipe loop between the chlorination point and the distribution system. This pipe provides 12 minutes of contact time at a flow rate of 1,500 gallons per minute at a typical chlorine concentration of 0.5 mg/L. In the event that the City decides to operate the Springs pump station at the maximum rate the water right allows, 2,220 gpm, the chlorine concentration could be increased to 0.65 mg/L comply with the required CT.

The City is not currently required to provide a CT at the Centennial Well. The well is chlorinated using sodium hypochlorite to maintain the chlorine residual throughout the distribution system. The City typically provides a chlorine concentration of 0.5 mg/L from its well source.

The City's disinfection facilities are anticipated to be sufficient to meet the City's disinfection requirements through the 20-year planning. The disinfection systems are designed to meet each source's maximum production capacity. As a result, both source and treatment shall be considered together in the final capacity summary in Table 3-17.

Source Condition

In 2017 two VFDs and replacement pumps were installed at Mount Si Springs and the production meter was replace. At present there are no other improvements or upgrades identified.

The production meter at the Centennial Well was replaced in 2018. A VFD will likely be installed in the near future. The City has some vibration concerns and plans to pull the pump and inspect the well. The well pump will be evaluated as well and may need require replacement.

BOOSTER STATION ANALYSIS

The City has two booster stations which convey water to the upper zones. The 2019 DOH *Water System Design Manual* establishes certain criteria for booster pumps stations that pump to open systems, where the hydraulic grade line (HGL) is governed by a storage tank open to the atmosphere, and closed systems, where the HGL is government by a closed distribution system or a pressure tank. The City's 710 Booster Station pumps into an open system, while the 780 Booster Station pumps into a closed system.

710 Booster Pump Station

During normal operating conditions, an open system booster pump station is required to supply maximum day demands and a minimum pressure of 30 psi using typical operational pumping capacities while either PHD and 30 psi or both maximum day demand with fire flow and 20 psi pressure in the supplying zone. The open system booster pump station is also required to meet maximum day demand and fire flow in the discharge zone with the largest pump out of service while the supplying zone meets maximum day demand and 30 psi pressure. However, if a reservoir, capable of supplying fire flow is present in the zone, the booster station need not supply fire flow during this scenario. The Forster Woods reservoir has adequate fire flow storage for both the 710 and 780 Zones. However, a high flow pump in the 710 Booster Station has the ability to meet fire flow requirements as well, adding redundancy to the system.

The 710 Booster Pump Station supplies both the 710 and 780 Zones. The pump station is equipped with two 305 gpm pumps which operate in alternating duty/spare fashion as well as a single 2,650 gpm high flow pump. GIS analysis of consumer data determined that 710 and 780 Zones comprise 5.7 percent of total system demand. As a result, average day demand and maximum day demand for the combined 710 and 780 Zones are 5.7 percent of those projected in Table 2-15. An analysis of the 710 Booster Pump Station's pumping capacity for 2020, 2030, and 2040, is summarized in Table 3-14. Pressure and demand requirements for the supply and discharge zones will be analyzed in the hydraulic sections

TABLE 3-14

710 Booster Pump Station's Pumping Capacity (2020-2040)

	2020		2030		2040	
ADD ⁽¹⁾ (gpm)	20		28		38	
MDD ⁽¹⁾ (gpm)	39		54		73	
FF (gpm)	0 ⁽²⁾		0 ⁽²⁾		0 ⁽²⁾	
Pump Operating Capacity (gpm)	3260		3260		3260	
Pump capacity with Largest Pump Out of Service (gpm)	610		610		610	
Meet MDD - Surplus/(Deficit)	Yes	3221	Yes	3206	Yes	3187
Meet MDD + FF with Largest Pump Out of Service – Surplus/(Deficit)	N/A ⁽²⁾	N/A ⁽²⁾	N/A ⁽²⁾	N/A ⁽²⁾	N/A ⁽²⁾	N/A ⁽²⁾

(1) Estimated to be 5.7 percent of Total Average day production (ADD) and Peak Day Production (MDD) from Table 2-15.

(2) Fire flow is provided by the Forster Woods Reservoir.

The 710 Booster Pump Station has adequate capacity to meet both maximum day as well as combined maximum day and fire flow requirements through 2040.

780 Booster Pump Station

A closed system booster pump station must provide both flow and pressure required by the closed zone. A closed system booster pump station must be capable of meeting peak hour demands (PHD) at no less than 30 psi while maintaining 30 psi and peak hour demand in the supplying zone, PHD at no less than 30 psi while maintaining 20 psi and meeting maximum day demand and fire flow in the supplying zone. Typically, a closed system must also be capable of meeting fire suppression requirements; however, fire suppression for the 780 Zone is supplied by the Forster Woods Reservoir and 710 Booster Station fire pump via a separate distribution network.

The 780 Booster station has three pumps, two with a capacity of 192 gpm and one with a capacity of 55 gpm. A GIS analysis of customer consumption indicated that the 780 Zone accounts for approximately 2.5 percent of the total flow to the system. The average day demand, max day demand, and peak hour demand for the 780 Zone were approximated to be 2.5 percent of the total system summarized in Table 2-15. Table 3-15 summarized the pump capacity analysis for the 780 Booster Pump Station for 2020, 2030 and 2040. Pressure and demand requirements for the supply and discharge zones will be analyzed in the hydraulic sections.

TABLE 3-15

780 Booster Pump Station's Pumping Capacity (2020-2040)

	2020		2030		2040	
ADD ⁽¹⁾ (gpm)	9		13		17	
MDD ⁽¹⁾ (gpm)	17		25		32	
PHD ⁽¹⁾ (gpm)	34		49		64	
FF (gpm)	0		0		0	
Pump Operating Capacity (gpm)	439		439		439	
Meet MDD - Surplus/(Deficit)	Yes	422	Yes	414	Yes	407
Meet MDD + FF with largest Routinely Used Pump Out of Service - Surplus/(Deficit)	N/A ⁽²⁾		N/A ⁽²⁾		N/A ⁽²⁾	

- (1) Estimated to be 2.5 percent of Total Average day production (ADD), Peak Day Production (MDD), and Peak Hour Demand (PHD) from Table 2-15.
- (2) Fire flow is provided by the Forster Woods Reservoir.

The 780 Booster Pump Station is projected to have adequate pumping capacity through the end of the 2040 planning period.

Condition

Both the 710 and 780 Booster Pump Stations are in good condition. The 55 gpm pump in the 780 station was replaced in 2019. At present there are no anticipated upgrade or replacements projects for either booster pump station.

STORAGE ANALYSIS

The existing storage facilities were described in Chapter 1. The storage requirements for the City were determined using the Department of Health's *Water System Design Manual, October 2019*. The storage components are:

- Operational Storage
- Equalizing Storage
- Standby Storage
- Fire Suppression Storage
- Dead Storage

Currently, the City has the Nintendo, I-90, and Forster Woods Reservoirs serving customers in its water service area. As discussed in Chapters 1 and 2, the reservoirs have a combined capacity of 3.25 MG. The equations used in calculating the storage requirements are discussed in the next sections, followed by Table 3-16, which presents a summary of the storage analysis results. All calculations assume that the 710/780 Zone demand is approximately 5.7 percent of the total system demand, as indicated by a GIS consumer data analysis. The following equations can serve as a basis for future storage calculations.

Operational Storage

Operational storage is the volume of the reservoir devoted to supplying the water system under normal operating conditions while the sources of supply are in the "off" status. This volume is typically established to prevent excessive cycling of wells and booster pumps.

Booster pumps and wells used to fill reservoirs are typically called on and off by water level sensors in the reservoirs. The call levels in the City's reservoirs have been set 3 feet apart; therefore, each reservoir has 3 feet of operational storage.

Equalizing Storage

Equalizing storage for a single source is calculated using the following equation:

$$ES = (PHD - Q_s) * 150 \text{ min}$$

$$ES = \text{Equalizing storage component (gallons)}$$

PHD = Peak hourly demand (gpm)
Q_s = Total of all permanent and seasonal sources (gpm)

Standby Storage

The minimum required standby storage is calculated using the following equation:

$$SB = (N) * (SB_i)$$

Where:

SB = Total standby storage component, or equivalent.
SB_i = ERU_{MDD}
N = Number of ERUs

with a minimum of 200 gpd/ERU

Standby storage is used to provide a measure of reliability should the City's source of supply fail or unusual conditions create increased system demands.

Fire Suppression Storage

The minimum fire suppression storage volume is calculated using the following equation:

$$\text{Fire Suppression Storage, FSS} = (FF) * (T_m)$$

Where:

FF = Required fire flow rate
T_m = Duration of fire flow rate

The fire suppression storage requirement varies with each of the City's pressure zones. The 594 Zone includes the highest rate of fire flow for the Nintendo Distribution Center of 4,500 gpm for a period of 4 hours. The 710 and 780 Zones are primarily single-family residences for which the City needs to provide 1,000 gpm for 1 hour and multi-family residences for which the City needs to provide 2,000 gpm for 2 hours. The 710 and 780 Zones can also receive fire flow from the fire flow pump in the 710 Booster Station, which has a capacity of 2,650 gpm and therefore provides full redundancy to the fire suppression storage in these zones.

Dead Storage

Dead storage is the volume of the reservoir that cannot be utilized because minimum system pressures would be below the 20 psi minimum during a fire flow event or 30 psi during peak hour demand.

Storage Use

Table 3-16 and 3-17 present the storage requirements for the City of North Bend based on the DOH requirements summarized in Table 3-1. These calculations serve as a basis for evaluating future storage requirements. Table 3-16 summarizes storage analysis where standby storage and fire flow are not nested, while Table 3-17 summarizes a capacity analysis with the storage components nested.

TABLE 3-16
Storage Analysis (Gallons) No Nesting

Year	2020			2030			2040		
Pressure Zone	594	710 and 780	Total System	594	710 and 780	Total System	594	710 and 780	Total System
Operational Storage ⁽¹⁾	198,041	52,355	250,396	198,041	52,355	250,396	198,041	52,355	250,396
Equalization Storage	0	0	0	0	0	0	0	0	0
Standby Storage	1,320,178	79,638	1,399,816	1,918,063	115,704	2,033,768	2,498,264	150,704	2,648,968
Fire Suppression	1,080,000	240,000	1,320,000	1,080,000	240,000	1,320,000	1,080,000	240,000	1,320,000
Required Storage	2,598,219	371,993	2,970,212	3,196,104	408,060	3,604,164	3,776,305	443,060	4,219,364
Storage Volume	2,500,000	750,000	3,250,000	2,500,000	750,000	3,250,000	2,500,000	750,000	3,250,000
Dead Storage	0 ⁽²⁾	52,352 ⁽³⁾	52,352	0 ⁽²⁾	52,352 ⁽³⁾	52,352	0 ⁽²⁾	52,352 ⁽³⁾	52,352
Available Storage	2,500,000	697,648	3,197,648	2,500,000	697,648	3,197,648	2,500,000	697,648	3,197,648
Surplus (Deficit)	(98,219)	325,655	227,436	(696,104)	289,588	(406,516)	(1,276,305)	254,588	(1,021,716)

(1) The City's reservoirs all currently operate with 3 feet of operational storage.

(2) Both reservoir foundations are more than 46 feet above the highest service in the 594 Zone and; therefore, have no dead storage.

(3) The reservoir foundation is 43 feet above the highest service in the 710 Zone. Thus, the Forster Woods Reservoir has 3 feet of dead storage.

TABLE 3-17**Storage Analysis (Gallons) with Nesting**

Year	2020			2030			2040		
Pressure Zone	594	710 and 780	Total System	594	710 and 780	Total System	594	710 and 780	Total System
Operational Storage ⁽¹⁾	198,041	52,355	250,396	198,041	52,355	250,396	198,041	52,355	250,396
Equalization Storage	0	0	0	0	0	0	0	0	0
Standby Storage	1,320,178	79,638		1,918,063	115,704	2,158,063 ⁽²⁾	2,498,264	150,704	2,738,264 ⁽²⁾
Fire Suppression	1,080,000	240,000	1,560,178 ⁽²⁾	1,080,000	240,000		1,080,000	240,000	
Required Storage	1,518,219	292,355	1,810,575	2,116,104	292,355	2,408,459	2,696,305	292,355	2,988,660
Storage Volume	2,500,000	750,000	3,250,000	2,500,000	750,000	3,250,000	2,500,000	750,000	3,250,000
Dead Storage	0 ⁽³⁾	52,352 ⁽⁴⁾	52,352	0 ⁽³⁾	52,352 ⁽⁴⁾	52,352	0 ⁽³⁾	52,352 ⁽⁴⁾	52,352
Available Storage	2,500,000	697,648	3,197,648	2,500,000	697,648	3,197,648	2,500,000	697,648	3,197,648
Surplus (Deficit)	981,781	405,293	1,387,073	383,896	405,293	789,189	(196,305)	405,293	208,988

(1) The City's reservoirs all currently operate with 3 feet of operational storage.

(2) Storage nesting adopted, the larger of standby storage/fire suppression controls.

(3) Both reservoir foundations are more than 46 feet above the highest service in the 594 Zone and therefore has no dead storage.

(4) The reservoir foundation is 43 feet above the highest service in the 710 Zone. Thus, the Forster Woods Reservoir has 3 feet of dead storage.

Storage deficits in the 594 Zone are not considered as storage deficiencies provided the higher zones and total system are still at a surplus. Water will be able to cascade down from the higher zones in order to meet demand in the 594 Zone.

The City must incorporate nesting into its storage capacity analysis before 2025 in order to avoid a storage deficit. The City will allow nesting while also planning for the construction of an additional 500,000-gallon reservoir between the 10- and 20-year planning horizons.

Condition

The three reservoirs were cleaned in 2020 and, overall, are in good condition. The Forster Woods and I-90 Reservoirs are due for interior and exterior recoating in the next 10 years during which time a number of security and seismic upgrades will likely take place.

TRANSMISSION AND DISTRIBUTION SYSTEM ANALYSIS

See Chapter 4 for an analysis of the City's transmission and distribution system.

SYSTEM CAPACITY SUMMARY

The maximum ERU capacity of each component of the City's water system must be analyzed and compared to the projected ERUs determined in the projections and summarized in Table 2-15. The system capacity of analysis is summarized in Table 3-18 below.

TABLE 3-18
System Capacity Analysis

Water System Connections Correlated to ERUs ⁽¹⁾			
Service Classification	Consumption	Total Connections	ERUs
Single Family	238,729	1,949	1,949
Multi-Family	66,053	548	419
Commercial/Industrial/Gov	112,615	248	714
DSL	130,200	—	826
Total	547,597	2,745	3,908
Service Capacity as ERUs and Gallons Per Day			
Water System Component/Facility		Capacity (gpd)	ERU Capacity ⁽²⁾
All Sources and Treatment ⁽³⁾⁽⁴⁾		4,860,000	15,939
Well Source and Treatment ⁽³⁾⁽⁵⁾		3,000,000	9,839
Mitigation		— ⁽⁶⁾	— ⁽⁶⁾
Equalizing Storage		N/A ⁽⁷⁾	N/A ⁽⁷⁾
Standby Storage ⁽⁷⁾⁽⁸⁾		2,947,252	9,666
Transmission		—	—
Water Rights		7,010,240	22,991
Water System's ERU Capacity			9,666
Estimated ERUs for 2030 ⁽⁹⁾			6,451
Estimated ERUs for 2040 ⁽⁹⁾			8,402

(1) From Table 2-10.

(2) Based on an ERU_{MDD} value of 315 gpd.

(3) Treatment systems have been designed to meet maximum source production.

(4) Includes both the Centennial Well and Mount Si Springs as shown in Table 3-11.

(5) Source capacity includes only the Centennial Well pump capacity as shown in Table 3-12 since Mount Si Springs is likely limited by weir bypass flow during peak demand periods.

(6) Mitigation capacity varies year by year as it is dependent on climate, SPU operations of Masonry Pool, and water System Demand.

(7) Source and pumping capacities are sufficient to not require equalizing storage.

(8) Assumes nesting as shown in Table 3-17.

(9) From Table 2-15.

CITY OF NORTH BEND SYSTEM DEFICIENCIES

The City has adequate source and treatment, standby storage, and water rights capacity to support the projected ERUs through the 2030 and 2040 planning periods; however, the City is nearing its maximum mitigation capacity, specifically during dry years.

The City uses an approved hydrogeological model developed by Golder to determine the effect of the Centennial Well on the Snoqualmie River. If the City uses the well over an extended period of time, the effect of the well on the river increases until the influence on the river equals the flow from the well. During periods where the influence on the river is the full production flow from the well and the Snoqualmie River in-stream flow targets are not met, the amount of mitigation water required is equal to the well production plus a factor of uncertainty in the system parameters. During these periods the City must provide the necessary mitigation from Hobo Springs. Historically, during most years, the available water from Hobo Springs is sufficient to provide the required mitigation. The City manages its source production during periods when the in-stream flow target is not met by preferentially using Mount Si Springs. Historically water from Mount Si Springs is available except for during the driest months during which time the springs may not have excess water above the 3.0 cfs minimum bypass.

During dry years, however, there can be limitations on Hobo Springs. The flow from Hobo Springs is dependent upon the level of the Masonry Pool which is managed by Seattle Public Utilities (SPU). The level decreases seasonally with the lowest level usually occurring in October. The minimum flows in Hobo Springs are also at this time. During dry years, the level of the Masonry Pool can drop well below typical seasonal levels and the flow from Hobo Springs may decrease to a point where it cannot meet mitigation demand. This was the case in 2015, a historically dry year, when the available mitigation water in Hobo Springs limited the amount that could be pumped from the Centennial Well.

Consequently, the City risks not being able to meet its mitigation options, unless it undertakes the two following measures:

1. Enact water conservation policies that allow for reducing peak season water use to allow the City to manage demands during dry years and dry seasons. The ability to reduce peak uses would allow for a reduction in mitigation demands and could allow the City to manage peak demands within the available mitigation flow.
2. Obtain other sources of mitigation water to provide redundancy in mitigation sources. A second source of mitigation water would ensure that the City can mitigate Centennial Well use even during periods of low flow in Hobo Springs.

The City is continuing to negotiate with Sallal Water Association to provide the Association wholesale water while also being able to obtain mitigation water from the Association's wells. The use of Sallal's wells for mitigation was included in the original mitigation design provisions for the Hobo Springs mitigation waterline project in 2008. The construction and use of Sallal mitigation intertie was also part of the provisions of the Centennial Well's water right permit. A final 400 feet of pipe and controls would be required to complete the mitigation facilities.

As outlined above, the City is acutely aware of the need to increase the supply and curb the demand of mitigation water and must do so soon. Due to the slow moving nature of the Sallal wholesale negotiations, the City is committed to tackling both the supply and demand side, bringing new mitigation sources online in the near-term. The City will accomplish this through the following four measures:

1. Continue to improve system efficiency and flexibility. The City installed variable frequency drives (VFDs) at the Mount Si Springs Booster Station in 2017 in order to increase flexibility and better manage bypass requirements. These VFDs allow the City to vary the pumping rate and has allowed the City to better comply with water rights requirements when total spring flows fall below 2,000 gpm. Seasonal low flows at Mount Si Springs typically occur in September which coincides with days of near maximum water demand. As part of the Capital Improvement Plan (CIP) in Chapter 7, the City plans to add a VFD to the Centennial Well for improved efficiency and flexibility as well.
2. Control and lower distribution system leakage (DSL) through targeted capital improvement projects. These projects are outlined in Chapter 7 and will replace aging asbestos concrete mains and other suspected leaking pipes. Reducing DSL will lower the overall water production and the mitigation requirements associated with well withdrawal in the summer and fall.
3. Decrease the magnitude of maximum day water demand during periods of low mitigation capacity. The June 2020 adoption of City Ordinance 1723 and the accompanying Water Shortage Plan by City Council gives the City the ability to impose and enforce conservation measures during times of water shortage. Three tiers have been identified based on the elevation of Masonry Pool which is hydraulically connected to the City's mitigation source, Hobo Springs. The ordinance and Water Shortage Plans can be found in Appendix R.

4. Increase and diversify the number of mitigation sources and overall capacity. The City has created a mitigation capacity action plan which will be executed either in tandem or in lieu of a wholesale water agreement with Sallal. The action plan includes the following steps:
 - a. Cascade Golf Course water mitigation system becomes operational in 2021. The Cascade Golf Course well and its associated water rights were purchased in 2018 with the intent to supplement Hobo Springs mitigation water. This project is listed in Chapter 7 of the WSP as project MT-1. This project will add a second mitigation source, thereby increasing capacity and adding redundancy to the City's mitigation system.
 - b. Hobo Springs Improvements will increase mitigation supply by 2022. This project is listed in Chapter 7 of the WSP as project MT-2. A new catchment basin will capture excess water which currently flows over the existing weir. This project will increase the available mitigation capacity at Hobo Springs.
 - c. The City will begin discussions SPU regarding the purchase of additional mitigation water.
 - d. Further assessment and refining of Mitigation Reservoir. This project is listed in Chapter 7 of the WSP as project MT-5. The City has already funded feasibility studies which have assessed perspective sites for a large 10 MG mitigation Reservoir. The City will continue to assess and refine the design but such a project will likely be largely grant funded. The WSP projects possible construction around 2031.

Finally, as indicated in Chapter 1, the City does have water right applications for additional water rights to improve source and mitigation reliability.

CHAPTER 4

HYDRAULIC MODELING

This Chapter presents information on the computer hydraulic model of the City's water system and the results of hydraulic analyses conducted to evaluate the existing and future capabilities of the water system.

The operation of a municipal water system involves dynamic interactions between various water system components, including source, storage, transmission, and distribution system facilities. These interactions and their effect on the level of service provided to the City's customers are dependent on the distribution and magnitude of water demands within the system and the performance characteristics of the water system facilities. In addition, infrequent high water demand events, such as firefighting and other emergencies, can significantly alter the normal flow patterns and pressures in the municipal water system and its components. These factors must be considered in analyzing the ability of a water system to provide for future demands, while maintaining an adequate level of water service to customers.

The development of a computer hydraulic model, which can accurately and realistically simulate the performance of a water system in response to a variety of conditions and scenarios, has become an increasingly important element in the planning, design, and analysis of municipal water systems. The Washington State Department of Health's WAC 246-290 requires hydraulic modeling as a component of water system plans.

HYDRAULIC MODELING SOFTWARE

The City's water system was analyzed using Innovyze's InfoWater hydraulic modeling software, which operates in an ArcMap GIS environment. The InfoWater model was created from an existing H2ONet hydraulic model developed during the completion of the City's 2010 Water System Comprehensive Plan. The model was modified to include new transmission mains constructed since the last Plan.

The InfoWater model is configured with a graphical user interface. Each water system element, including pipes, valves, sources, and reservoirs, is assigned a unique graphical representation within the model. Each element is assigned a number of attributes specific to its function in the actual water system. Typical element attributes include spatial coordinates, elevation, water demand, pipe lengths and diameters, and critical water levels for reservoirs. With attributes of each system element as the model input, the InfoWater software produces the model output in the form of flows and pressures throughout the simulated water system.

MODEL ASSUMPTIONS

The basic layout of the water system is recreated within the model. The lengths, diameters, and connection points of system piping are assigned using an updated base map of the water system. Elevations of nodes are assigned using County LiDAR data. The locations of normally closed valves, check valves, and pressure reducing valves (PRVs) are found on water system base maps. The assumptions regarding the modeling of the City's water sources, system demands, and the settings of PRVs are included in the following sections. The calibration results are summarized below.

SOURCE

Mount Si Springs and the Centennial Well are included in the hydraulic model. Both the springs and the well are modeled as a fixed-head reservoir simulating the clear well or aquifer and a pump. Pump curves are known for both sources and are recreated in the model. The spring and well pumps are called on and off based on reservoir levels in the Nintendo Reservoir.

STORAGE

In InfoWater, reservoirs are modeled as "tanks" with finite size, using actual reservoir dimensions and elevations. The model includes the City's three active storage tanks. Dimensions and critical elevations of the storage facilities are provided in Table 1-2.

BOOSTER STATIONS

The City's two booster stations have been included in the hydraulic model. Pump curves have been assigned to each pump based on data obtained from the City.

PRESSURE REDUCING VALVES (PRVS)

All distribution system pressure reducing valves (PRVs) are included in the model. The PRV settings were obtained from City staff and are recreated in the model.

SYSTEM DEMANDS

A key element in the hydraulic modeling process is the distribution of demands throughout the water system. Total demand on the system is based on the existing and projected demands from Chapter 2. Demand distribution among the pressure zones has been determined from an analysis of the booster station flow meters, as discussed in Chapter 3.

The modeling software allows numerous hydraulic scenarios to be loaded into the model. In order to evaluate the system under different demand conditions, several demand scenarios are included in the model and are provided in Table 4-1.

Six demand sets were used in the hydraulic analysis.

- 2020 Peak Hour Demands: These demands were used to verify the system's current ability to meet the DOH standards to supply domestic water at a minimum system wide pressure of 30 psi.
- 2020 Maximum Day Demands: These demands were used to evaluate the system's current ability to meet the maximum day demands plus required fire flows at DOH's requirement of 20 psi.
- 2030 Peak Hour Demands: These demands were used to verify the system is able to meet the DOH standards to supply domestic water at a minimum system wide pressure of 30 psi through 2030.
- 2030 Maximum Day Demands: These demands were used to evaluate the system's ability to meet the maximum day demands plus required fire flows at DOH's requirement of 20 psi through 2030.
- 2040 Peak Hour Demands: These demands were used to verify the system is able to meet the DOH standards to supply domestic water at a minimum system wide pressure of 30 psi within the 20-year planning period.
- 2040 Maximum Day Demands: These demands were used to evaluate the system's ability to meet the maximum day demands plus required fire flows at DOH's requirement of 20 psi within the 20-year planning period.

MODEL CALIBRATION

The calibration of a hydraulic model provides a measure of assurance that the model is an accurate and realistic representation of the actual system. The City's model was calibrated for seven hydrant locations in 2009, as described in the 2010 Water System Plan.

FIELD TESTS

The calibration of a hydraulic model provides a measure of assurance that the model is an accurate and realistic representation of the actual system. The City's existing hydraulic model was calibrated using field measurements taken on July 13, 2020. During these tests while static and residual pressures were recorded and nearby closed hydrants, City staff opened hydrants and recorded the flow rate. Field results have been used to calibrate the hydraulic model through the verification and adjustment of pipe type, sizes, roughness coefficients, and elevations. Table 4-1 identifies the location of each hydrant test.

TABLE 4-1**2020 Field Testing Locations**

Test Number	Pressure Zone	Testing Location Flow		Testing Location Pressure	
		Intersection	Node	Intersection	Node
1	594	SE 13 th and Mountain View	J-277	SE 11 th and Mountain View	J-279
2	594	SE Cedar Falls Way and 424 th Avenue SE	J599	Maloney Grove and Mt. Teneriffe Place	J-328
3	594	North Bend Elementary North Hydrant	J459	North Bend Elementary South Hydrant	J-57
4	594	Boxley Place and NE 5 th Street	J-21	428 th and 6 th	J-33
5	594	SE 87 th Avenue	J-2	SE 88 th and 436 th	J-1

System conditions during each hydrant test were recorded, including reservoir levels, source on/off status, and booster station on/off status. Table 4-2 summarizes the reservoir and source conditions during testing. Using the system conditions for each hydrant test, the hydraulic model has been used to generate static pressure and residual pressure at the measured flow rate. The domestic demands used during the calibration process are assumed to equal 1.24 times the average day demand for 2020 based on tank drawdown during the testing period. Model output has been generated at points in the model equivalent to the locations of the hydrant tests.

TABLE 4-2**2020 Conditions During Model Calibration Hydrant Testing**

Test Number	Pressure Zone	Active Supply to Zone	Nintendo Reservoir Level	I-90 Reservoir Level	Forster Woods Reservoir Level
1	594	None	37.58	23.52	N/A
2	594	None	37.5	23.43	N/A
3	594	None	37.38	23.3	N/A
4	594	None	37.28	23.2	N/A
5	594	None	37.1	23.04	N/A
6 ⁽¹⁾	710	None	N/A	N/A	36.25
7	594	None	36.96	22.94	N/A

(1) 710 Booster Pump Station was on during test with a flow rate of 267 gpm and a discharge head pressure of 96.0 psi.

Static pressure results are generated by running the model with only domestic demands. Residual pressure results are generated by placing an additional demand at the location of the hydrant test equal to the measured flow rate.

The system pressure and pipe flow rates determined in the calibration process are highly dependent on the friction loss characteristics established for each pipe. The friction losses occurring in lengths of pipe, fittings, and isolation valves are accounted for in the hydraulic model. The friction factors for the model pipes are adjusted throughout the calibration process until the model output best approximates the measured values. Hazen-Williams C-factors between 110 and 140 are used throughout the system. These friction factors are typical for most pipe types and are generally conservative. The friction factors for the pipe also compensates for system losses through valves and pipe fittings.

The model output has been produced for two data comparisons: static pressure and residual pressure. Table 4-3 provides the flow rates, measured static and residual pressures, and modeled static and residual pressures. Calibration of the hydraulic model produced results that are within 3 psi of static pressure and 5 psi of residual pressure, with the exception of a single cases for the residual pressure. This exception occurs at test site number 5 which is located on an old dead end main north of the City. The model results this site were more conservative than the field measurements and the location and configuration of the water system suggest this discrepancy would have little effect on the rest of the system.

TABLE 4-3
Model Calibration

Node (pressure/flow)	Field Flow	Field Pressures (psi)			Model Pressure (psi)			Model vs Field Δ (psi)
		Static	Residual	ΔP	Static	Residual	ΔP	
J-277/-J279	1060	56	47	9	57.6	45.5	12	-3.1
J599/J-328	1130	53	50	3	54.9	49.8	5	-2.1
J459/J-57	1060	64	57	7	62.4	57.1	5	1.7
J-21/J-33	900	60	48	12	59.7	47.6	12	-0.1
J-2/J-1	830	69	30	39	65.8	11.5	54	-15.3
J-165/J-163	1060	40	35	5	37.8	30.2	8	-2.6
J509/J66	1130	69	60	9	66.5	58.4	8	0.9

MODELED SCENARIOS AND RESULTS

PEAK HOUR ANALYSIS

Water systems must maintain a minimum pressure of 30 psi in the distribution system under peak hour demand conditions in accordance with WAC 246-290-230(5). During peak hour analyses, all operational and equalizing storage is depleted from the City's reservoirs. Reservoir storage volumes are provided in Table 3-17. For the peak hour analyses, no sources are operational and only one booster pump at the 780 Booster

Station is operational since the peak hour demand reservoir levels are nearly within the normal operational levels. The 780 Booster Station has redundant pumps and a generator onsite. The 2030 and 2040 scenarios include water supplied by North Bend via the Sallal intertie. Table 4-4 provides the system conditions used during peak hour analyses.

TABLE 4-4
System Conditions During Peak Hour Analyses

Condition	2020	2030	2040
Model Demand Set Name	2020PHD	2030PHD	2040PHD
Peak Hour Demands	925.5 gpm	1,555.0 gpm	2,046.0 gpm
Existing System Without Modifications			
Model Tank Set Name	2020PHD	2030PHD	2040PHD
Source Conditions	None Active	None Active	None Active
Booster Station Status	Normal Operation ⁽¹⁾	Normal Operation ⁽¹⁾	Normal Operation ⁽¹⁾
594 Zone Reservoirs	591.0 ft HGL	591.0 ft HGL	591.0 ft HGL
710 Reservoirs	707.0 ft HGL	707.0 ft HGL	707.0 ft HGL

(1) One pump operating at 780 BPS.

The hydraulic model is used to evaluate the system's ability to provide adequate service pressure. Table 4-5 provides the minimum system pressure during peak hour for each pressure zone. Figure 4-1 identifies the peak hour pressures throughout the water system at the end of the 20-year planning period. Complete model output results are included in Appendix G.

The results of the Peak Hour Analyses indicate that sufficient pressures are available throughout the system at peak hour demands throughout the 20-year planning period.

TABLE 4-5
Minimum Pressures During Peak Hour Analyses

Pressure Zone	Location	2020	2030	2040
594 Zone	Forster Boulevard SW and SW 11 th Place	43 psi	43 psi	43 psi
710 Zone	SW 10 th Street and SW 12 th Court	33 psi	33 psi	33 psi
780 Zone	Arrive	67 psi	67 psi	63 psi

AVAILABLE FIRE FLOW ANALYSIS

The hydraulic model has been used to assess the availability of fire flows throughout the water system. WAC 246-290-230 (6) requires systems providing fire flow to be designed to provide maximum day demands plus the required fire flow, while maintaining system-wide pressure of 20 psi. In addition, operational, equalizing, and fire suppression storage

Legend

Peak Hour Pressure (psi)

- < 30
- 30 - 40
- 40 - 50
- 50 - 80
- > 80

CENTENNIAL WELL

Mitigation Well

PRV

PUMP STATION

RESERVOIR

Water Main Diameter:

Less than 12"

12" and Greater

RETAIL SERVICE AREA

NORTH BEND CITY LIMITS

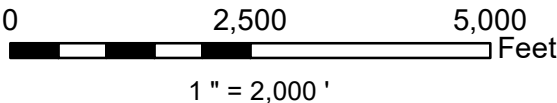
710 ZONE (710 FT HGL)

780 ZONE (780 FT HGL)

594 ZONE (594 FT HGL)

Source: King County &
City of North Bend GIS
Data; Aerial

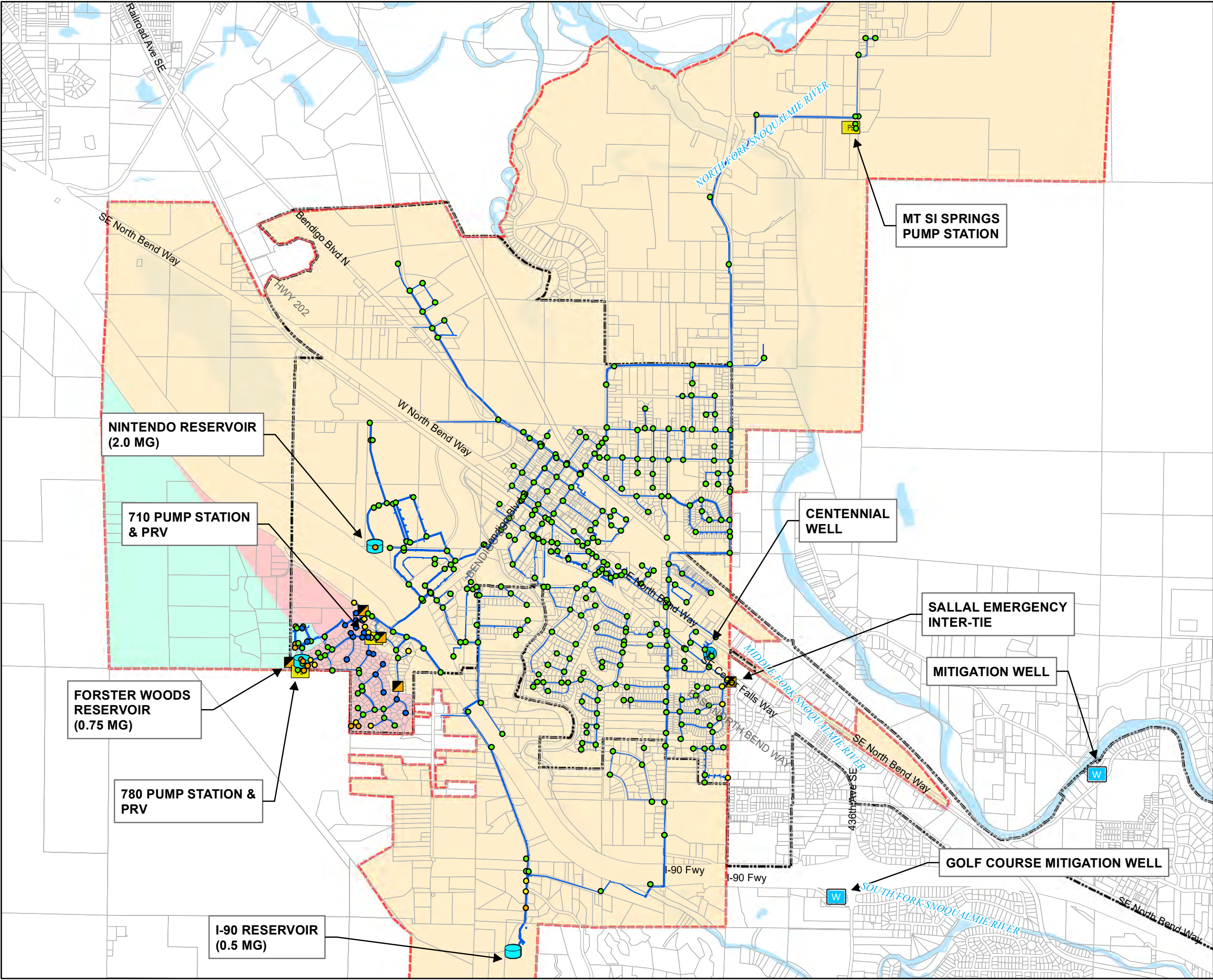
N



CITY OF NORTH BEND
WATER SYSTEM PLAN

FIGURE 4-1

2040 PHD MODELING RESULTS



are depleted from the reservoirs for these analyses. Storage volumes are provided in Table 3-17. For the fire flow analyses, the Centennial Well, two domestic pumps at the 710 Booster Station, and one pump at the 780 Booster Station are operational. This condition represents the case where the largest source/pump is out of service. All of the operational sites have backup power on site. The City's distribution system is modeled with the fire flow conditions provided in Table 4-6. The 2030 and 2040 scenarios include water supplied by North Bend via the Sallal intertie.

TABLE 4-6

System Conditions During Fire Flow Analyses

Condition	2020	2030	2040
Model Demand Set Name	2020MDD	2030MDD	2040MDD
Maximum Day Demands	451.5 gpm	758.5 gpm	998.0 gpm
Existing System Without Modifications			
Model Tank Set Name	2020MDD	2030MDD	2040MDD
Source Conditions	Normal Operation ⁽¹⁾	Normal Operation ⁽¹⁾	Normal Operation ⁽¹⁾
Booster Station Status	Normal Operation ⁽²⁾	Normal Operation ⁽²⁾	Normal Operation ⁽²⁾
594 Zone Reservoirs	573.5 ft HGL	573.5 ft HGL	573.5 ft HGL
710 Zone Reservoir	692.9 ft HGL	692.9 ft HGL	692.9 ft HGL

(1) Only Centennial Well operating.

(2) Two domestic pumps operating at 710 BPS. One pump operating at 780 BPS.

Table 4-7 provides the general fire flow requirements for various buildings. Figure 4-2 identifies the existing available fire flows throughout the water system. Flows vary significantly within each classification depending on the elevation, water main sizes, and proximity to storage.

TABLE 4-7

Existing Fire Flow Requirements by Zoning Classification

Land Use	Fire Flow Requirement (gpm)	Duration Requirement (hr)
Single-Family	1,000	2
Multi-Family	2,000	2
Commercial/Industrial	3,000	3
Schools	3,000	3

Several structures have fire flow requirements greater than the minimum required for their zoning classification. Table 4-8 provides the name and location of these buildings and other notable locations along with their required fire flow and available fire flows.

As shown in Figure 4-2 and Table 4-8, there are areas of the City's system where there is insufficient fire flow available to meet the fire flow requirements. The model fire flow results for these areas and the reason for the deficiencies are given in Table 4-9. The model fire flow results with the Capital Improvement Program projects described in Chapter 7 are given in Table 4-10 and shown in Figure 4-3.

Legend

Available Fire Flow (gpm)

- < 1,000
- 1,000 - 2,000
- 2,000 - 3,000
- 3,000 - 5,000
- > 5,000

CENTENNIAL WELL

Mitigation Well

PRV

PUMP STATION

RESERVOIR

Water Main Diameter:

Less than 12"

12" and Greater

RETAIL SERVICE AREA

NORTH BEND CITY LIMITS

710 ZONE (710 FT HGL)

780 ZONE (780 FT HGL)

594 ZONE (594 FT HGL)

Source: King County &
City of North Bend GIS
Data; Aerial

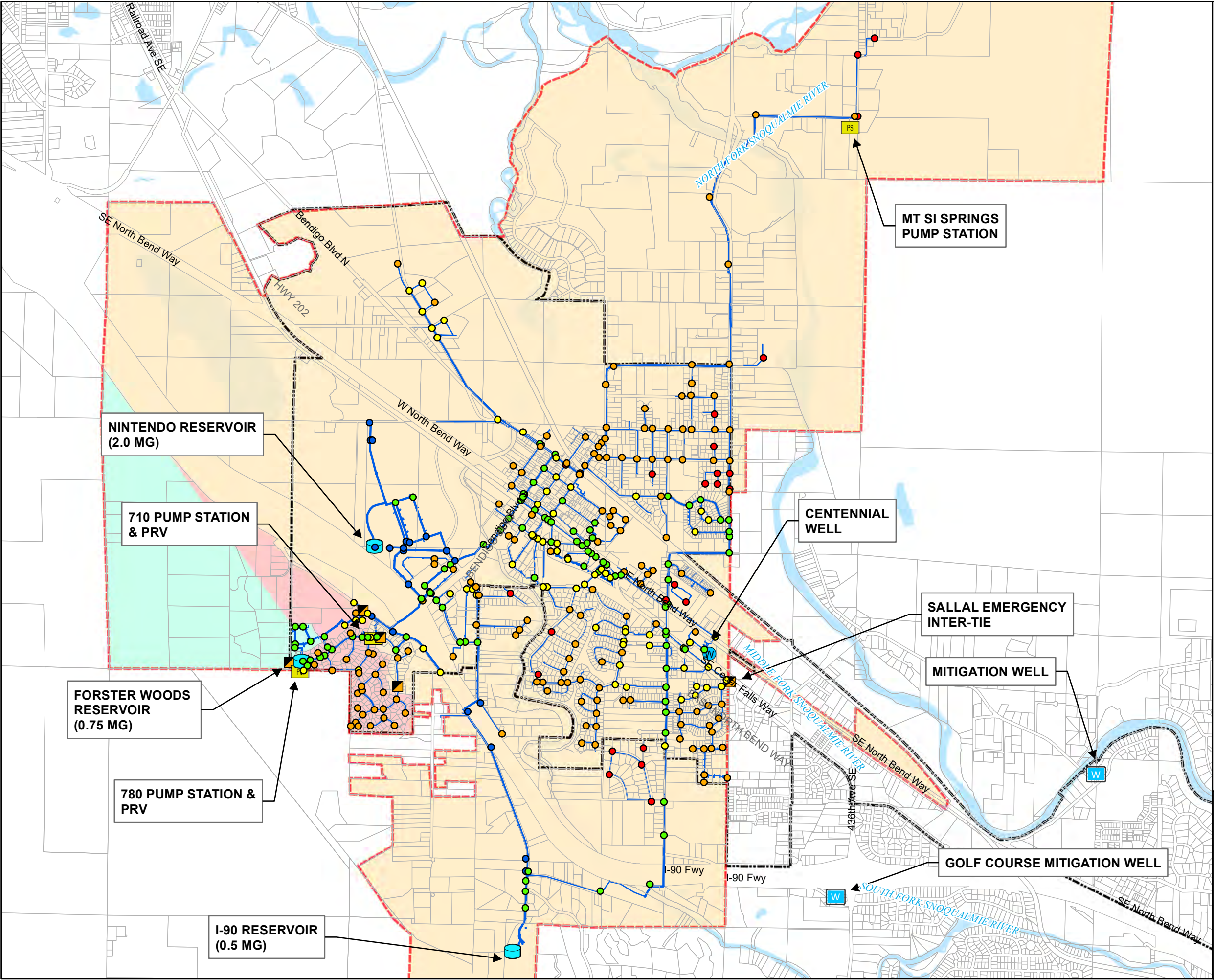
N

0 2,500 5,000
Feet

1" = 2,000'

CITY OF NORTH BEND
WATER SYSTEM PLAN
FIGURE 4-2

2020 FIRE FLOW MODELING RESULTS



Legend

Available Fire Flow (gpm)

- < 1,000
- 1,000 - 2,000
- 2,000 - 3,000
- 3,000 - 5,000
- > 5,000

CENTENNIAL WELL

Mitigation Well

PRV

PUMP STATION

RESERVOIR

Water Main Diameter:

Less than 12"

12" and Greater

RETAIL SERVICE

NORTH BEND CITY LIMITS

710 ZONE (710 FT HGL)

780 ZONE (780 FT HGL)

594 ZONE (594 FT HGL)

Source: King County &
City of North Bend GIS
Data; Aerial

N

0 2,500 5,000
Feet
1" = 2,000'

CITY OF NORTH BEND
WATER SYSTEM PLAN

FIGURE 4-3
2040 FIRE FLOW MODELING RESULTS
WITH IMPROVEMENTS

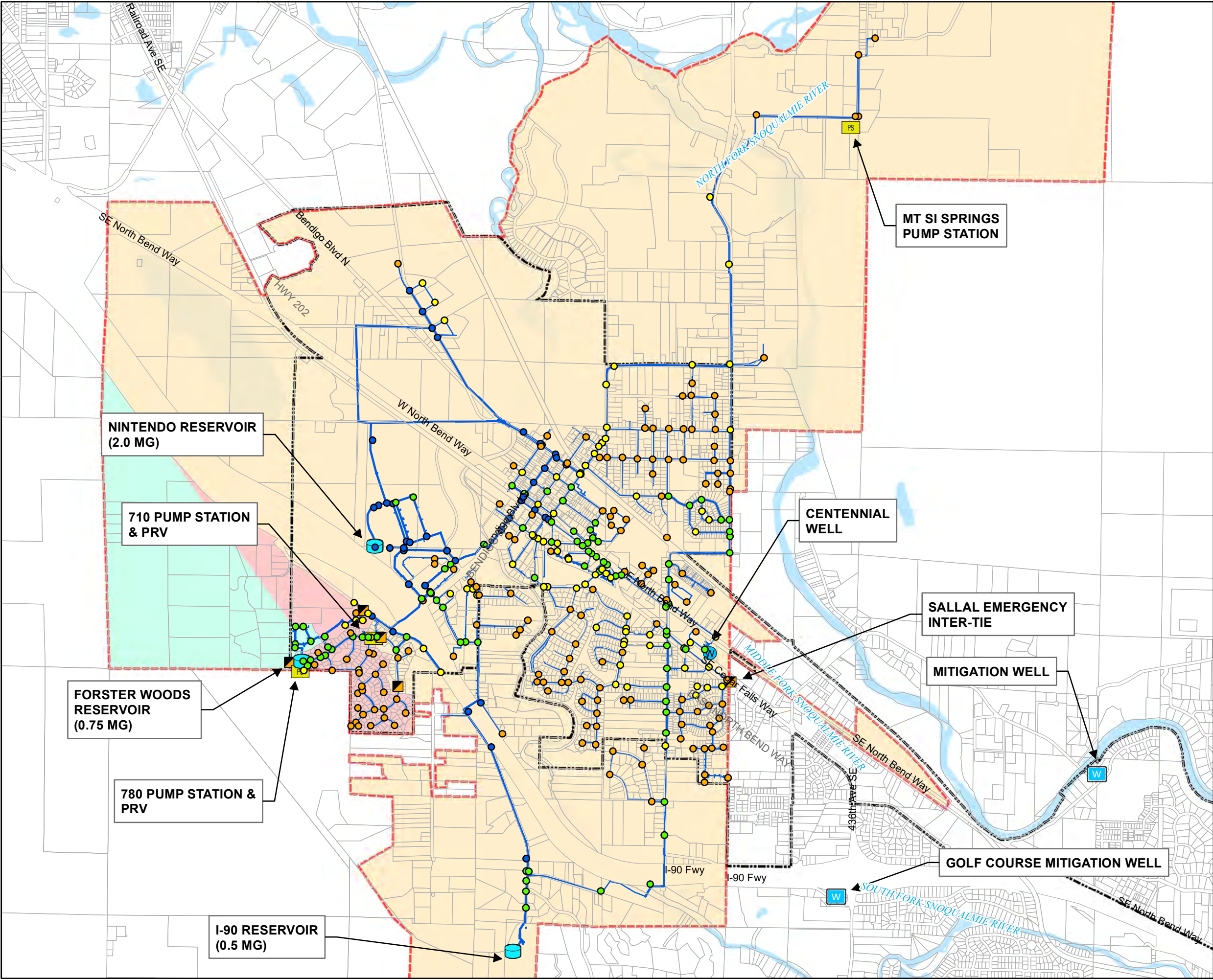


TABLE 4-8**Fire Flow Results for Critical Locations**

Name	Location	Node	Pressure Zone	Fire Flow Required (gpm)	Available Fire Flow ⁽¹⁾ (gpm)	
					2020	2040 ⁽²⁾
Nintendo	401 South Fork	J-138	594	4,500	5,780	5,470
Elementary School	400 East 3rd	J-58	594	3,500	1,530	1,530
Ace Hardware	300 South Main	J-240	594	3,000	4,370	3,990
Factory Outlet Stores	531 South Fork	J-209	594	3,000	4,060	4,060
Downtown	2nd and Main	J-216	594	2,500	2,170	2,170
Mt. Si Business Park	1546 Boalch Avenue NW	J-65	594	3,500	2,800	2,790
Si View	Mountain View Boulevard SE and SE 10 th Street	J-275	594	1,000	1,560	1,540
SE North Bend	End of SE 135th Street	J-88	594	1,000	700	690
Forster Woods	South end of Forster Boulevard SW	J-165	710	1,000	1,220	1,210
NE North Bend	Boxley Avenue and NE 5th Street	J-33	594	1,000	700	690
Si View South	South end of Mountain View Boulevard SE	J-282	594	1,000	1,240	1,230
East North Bend	SE Symmons	J-83	594	1,000	2,100	2,080
	East end of SE 10th Street	J-11	594	1,000	700	700
Les Schwab	North Bend Way and Cedar Falls Way	J-465	594	3,000	3,270	3,230
	North Bend Way and Cedar Falls Way	J-268	594	3,000	1,950	1,940
	Sydney Avenue	J-265	594	3,000	1,430	1,430
	428 th Avenue SE	J-321	594	1,000	2,830	2,920
Rock Creek Ridge	Stone Brook Drive SW and Quartz Drive SW	J-305	780	2,000	3,740	3,730

(1) Fire flow available while maintaining a minimum system wide pressure of 20 psi.

(2) 2040 fire flows are given without improvements presented in Chapter 8.

Note: **Bold** signifies deficient fire flow.

TABLE 4-9

Fire Flow Results for Deficient Locations

Location	Node	Fire Flow Required (gpm)	2020 Fire Flow Available (gpm) ⁽¹⁾	Reason for Deficiency
SE 87 th Street and 436 th Place SE	J-1	1,000	680	Dead end 6-inch pipe
End of SE 108 th Street	J-11	1,000	700	Dead end 6-inch pipe
Riverside Drive SE and SE Maple Drive	J-115	1,000	960	6-inch and 4-inch pipe
End of Riverside Drive SE	J-116	1,000	700	Dead end 6-inch pipe
SE 123 rd Street and 415 th Avenue SE	J-127	1,000	700	Dead end 6-inch pipe
SE 87 th Street and 436 th Place SE	J-2	1,000	700	Dead end 6-inch pipe
Main Avenue North and West 2 nd Street	J-216	2,500	2,170	8-inch and 6-inch pipe
Main Avenue North and West 4 th Street	J-259	1,000	930	6-inch pipe
West North Bend Way and Sydney Avenue North	J-265	3,000	1,430	6-inch and 4-inch pipe
Borst Avenue NE and NE 9 th Street	J-28	1,000	890	6-inch pipe
SE 92 nd Street and 436 th Avenue SE	J-3	1,000	700	6-inch pipe
Borst Avenue NE and NE 6 th Street	J-30	1,000	700	Dead end 6-inch pipe
End of Taylor Place NE	J-31	1,000	700	Dead end 6-inch pipe
End of Boxley Place NE	J-32	1,000	700	Dead end 6-inch pipe
Boxley Place NE and NE 5 th Street	J-33	1,000	700	Dead end 6-inch pipe
NE 5 th Street and Pickett Avenue NE	J-34	1,000	700	Dead end 6-inch pipe
End of Pickett Avenue NE	J-35	1,000	700	Dead end 6-inch pipe
End of East 2 nd Street	J-58	3,500	1,530	8-inch pipe
Mount Si Business Park -1546 Boalch Avenue NW	J-65	3,500	2,800	dead end 12-inch pipe
Thrasher Avenue NE	J-74	1,000	700	6-inch pipe on North Bend Way, Dead end
SE 136 th Street and 423 rd Avenue SE	J-87	1,000	700	Dead end 6-inch pipe
End of SE 135 th Street	J-88	1,000	700	Dead end 6-inch pipe
End of SE 133 rd Street	J-89	1,000	700	Dead end 6-inch pipe
423 rd Avenue SE and SE 133 rd Street	J-93	1,000	700	Dead end 6-inch pipe
End of 423 rd Avenue SE	J-94	1,000	700	Dead end 6-inch pipe
East North Bend Way and Thrasher Avenue NE	J441	1,000	700	Dead end 6-inch pipe
Thrasher Avenue NE	J583	1,000	700	6-inch pipe on North Bend Way, Dead end
End of Merritt Avenue NE	J615	1,000	310	Dead end 4-inch pipe

(1) Fire flow available while maintaining a minimum system wide pressure of 20 psi.

TABLE 4-10**Improved Fire Flow Results for Deficient Locations**

Location	Node	Fire Flow Required (gpm)	2040 Improved Fire Flow Available (gpm)⁽¹⁾	Projects Resolving Deficiency⁽²⁾
SE 87 th Street and 436 th Place SE	J-1	1,000	1,050	D-16
End of SE 108 th Street	J-11	1,000	1,250	D-9
Riverside Drive SE and SE Maple Drive	J-115	1,000	1,500	D-5
End of Riverside Drive SE	J-116	1,000	1,250	D-5
SE 123 rd Street and 415 th Avenue SE	J-127	1,000	1,240	D-7
SE 87 th Street and 436 th Place SE	J-2	1,000	1,170	D-16
Main Avenue North and West 2 nd Street	J-216	2,500	3,050	D-2
Main Avenue North and West 4 th Street	J-259	1,000	1,470	D-1
West North Bend Way and Sydney Avenue North	J-265	3,000	3,440	D-3
Borst Avenue NE and NE 9 th Street	J-28	1,000	1,170	D-10
SE 92 nd Street and 436 th Avenue SE	J-3	1,000	1,690	D-16
Borst Avenue NE and NE 6 th Street	J-30	1,000	1,250	D-11
End of Taylor Place NE	J-31	1,000	1,220	D-14
End of Boxley Place NE	J-32	1,000	1,220	D-14
Boxley Place NE and NE 5 th Street	J-33	1,000	1,220	D-14
NE 5 th Street and Pickett Avenue NE	J-34	1,000	1,220	D-13
End of Pickett Avenue NE	J-35	1,000	1,220	D-13
End of East 2 nd Street	J-58	3,500	3,520	D-6
Mount Si Business Park -1546 Boalch Avenue NW	J-65	3,500	3,990	D-17, DE-5, DE-6, DE-7
Thrasher Avenue NE	J-74	1,000	1,250	D-12
SE 136 th Street and 423 rd Avenue SE	J-87	1,000	1,240	D-8
End of SE 135 th Street	J-88	1,000	1,230	D-8
End of SE 133 rd Street	J-89	1,000	1,190	D-8
423 rd Avenue SE and SE 133 rd Street	J-93	1,000	1,080	D-8
End of 423 rd Avenue SE	J-94	1,000	1,080	D-8
E North Bend Way and Thrasher Avenue NE	J441	1,000	1,250	D-8
Thrasher Avenue NE	J583	1,000	1,250	D-12
End of Merritt Avenue NE	J615	1,000	1,250	D-15

(1) Fire flow available while maintaining a minimum system wide pressure of 20 psi.

(2) See Chapter 8 for descriptions of the Capital Improvement Program projects.

CHAPTER 5

WATER USE EFFICIENCY PROGRAM

OBJECTIVE

This chapter identifies the conservation and water use efficiency requirements pertaining to the City, evaluates past conservation efforts, and describe the City's water use efficiency plan for the next 10 years.

WATER USE EFFICIENCY PLANNING REQUIREMENTS

The Washington Legislature passed the Water Use Efficiency Act of 1989 (43.20.230 RCW), which directs DOH to develop procedures and guidelines relating to water use efficiency.

In 2003, the Municipal Water Supply – Efficiency Requirements Act (Municipal Water Law) was passed and amended RCW 90.46 to require additional conservation measures. The Municipal Water Law, among other things, directed DOH to develop the Water Use Efficiency Rule (WUE Rule), which is outlined in the *Water Use Efficiency Guidebook* and became effective January 22, 2007.

These documents provide guidelines and requirements regarding the development and implementation of conservation and efficiency programs for public water systems. Conservation and efficiency programs developed in compliance with these documents are required by DOH and by Ecology as part of a public water system water right application. Conservation must be evaluated and implemented as an alternate source of supply before State agencies approve applications for new or expanded water rights.

Conservation can be used effectively to help meet the increased demand for water, to protect the environment, to delay the development of costly infrastructure, and to ensure that water is available to meet economic and population growth consistent with the Growth Management Act by using existing supplies more efficiently. Public awareness and participation are necessary for the City to develop an active and beneficial conservation plan.

The third and most recent edition of the *WUE Guidebook* was released in January 2017. As an extension to the Conservation Planning Requirements, the WUE Rule sets more stringent requirements for public water purveyors. The WUE Rule is comprised of the following six sections:

1. Water Use Efficiency Requirements
2. Water Meters
3. Data Collection

4. Distribution System Leakage
5. Demand Forecasting
6. Water Use Efficiency Program and Goals

The following sections provide a discussion of each section, requirements, and the impact the WUE Rule has on the City.

WATER USE EFFICIENCY REQUIREMENTS

The *Water Use Efficiency Guidebook* establishes varying implementation and evaluation requirements for municipal water suppliers (MWS). The new requirements focus on the importance of measuring water usage and evaluating the effectiveness of the WUE program. There are three fundamental elements to the Rule, including planning, distribution leakage standards, and goal setting and performance reporting.

Table 5-1 provides a summary of the WUE Rule requirements applicable to the City.

TABLE 5-1

Summary of WUE Requirements

Requirement	Deadline ⁽¹⁾
Include WUE Program in Planning Documents	January 22, 2008
Set WUE Goals	January 22, 2008
Submit Service Meter Installation Schedule	July 1, 2008
Submit First Annual Performance Report	July 1, 2008
Meet Distribution Leakage Standard (based on 3-year rolling average)	July 1, 2010, or 3 years after installing all service meters
Complete Installation of All Service Meters	January 22, 2017

(1) Requirements for a municipal water system with 1,000 or more connections.

SOURCE AND SERVICE METERING

The WUE Rule requires all sources and customer service connection be metered by 2017. The City currently meters all sources and customers and is, therefore, in full compliance with this requirement. All new sources and customers will also continue to be metered.

DATA COLLECTION AND REPORTING

The WUE Rule requires regular collection of production and consumption data. Data must be reported in the City's planning documents and annual performance report to DOH. Water use data will be used for the following:

- Calculating leakage;
- Forecasting demand for future water needs;

- Identifying areas for more efficient water use;
- Evaluating the success of the WUE program;
- Describing water supply characteristics; and
- Aiding in decision-making about water management.

Table 5-2 summarizes the water use data collection requirements.

TABLE 5-2

Summary of Water Use Data Collection

Data Type	Comments
Source of Supply Meter Data	Monthly and annual totals of production, purchased water from another system, and/or supplied to other systems through interties.
Service Meter Data	Total annual consumption, annual consumption by each customer class, and customer class seasonal variations.

This data is needed to meet the planning and performance reporting requirements and to check compliance with the distribution system leakage standard of the WUE Rule. The City is currently in compliance with this regulation.

DISTRIBUTION SYSTEM LEAKAGE STANDARD

The *Conservation Planning Requirements* set the maximum allowable rate of lost and unaccounted for water at 20 percent of total source production. The WUE Rule now requires that water distribution systems have a leakage rate less than 10 percent of finished water production based on a 3-year rolling average. DSL is defined as the difference between the volumes of production (by sources) and authorized consumption measured by service meters (plus other credibly estimated usage). DSL includes water loss due to leaks or unauthorized uses such as illegal service connections, accounting errors, inaccurate source and customer meters, and water leaving the system for any unmetered use. Unmetered uses typically include flushing of mains and fire flows.

The City's DSL for 2010 through 2019 is summarized in Table 5-3 below.

TABLE 5-3**Distribution System Leakage**

Year	Metered Production (MG)	Metered Use (MG)	DSL		3-year Average (%)
			(MG)	(%)	
2009	230	181	49	21.3%	25.2%
2010	213	162	52	24.2%	22.0%
2011	185	152	33	18.0%	21.2%
2012	192	156	36	18.6%	20.3%
2013	199	163	37	18.4%	18.3%
2014	199	167	32	16.3%	17.8%
2015	205	180	25	12.1%	15.6%
2016	195	163	32	16.3%	14.9%
2017	207	169	38	18.5%	15.6%
2018	212	164	48	22.8%	19.2%
2019	200	152	48	25.9%	22.4%
Average				19.1%	18.7%

The 2019 DSL was 25.9 percent while the 3-year rolling average was 22.4 percent. As both DSL values are above 10 percent, a Water Loss Control Action Plan is required and will be included as part of this chapter.

WATER USE EFFICIENCY PROGRAM

The following sections describe the City's past and present water use efficiency goals, a description of the conservation measures, and the resulting water use projections.

PAST WATER USE EFFICIENCY GOALS

The previous WSP the City set water use efficiency goals that specifically addressed supply and demand characteristics. The City's goals for the previous Plan were as follows:

- Goal 1: To reduce distribution system leakage to 10 percent by 2015.
- Goal 2: To reduce single family residence per capita daily consumption (SFR-PCDC) from 78.3 gallons per day to 75 gallons per day by 2012.

The Goal 1 target of reducing distribution system leakage to 10 percent by 2015 was not met. As can be seen in Table 5-3, in 2015 the historical DSL has consistently remained above 10 percent.

Goal 2 targets for single-family residence per capita daily consumption (SFR-PCDC) and the historical SFR-PCDC for 2010 through 2019 can be compared and summarized in Table 5-4.

TABLE 5-4

Goal 1: SFR-PCDC Evaluation

Year	Target SFR-PCDC (gpd)⁽¹⁾	Historical SFR-PCDC (gpd)⁽¹⁾
2010	78.3	77.2
2011	76.7	67.2
2012	75	62.2
2013	75	66.6
2014	75	60.9
2015	75	61.4
2016	75	65.9
2017	75	59.9
2018	75	61.2
2019	75	59.2

(1) Assumes 2.5 persons per household for single-family residential accounts.

The goal of reducing SFR-PCDC to 75 gallons per day by 2012 was met and surpassed. SFR-PCDC was 62.2 gpd in 2012 and 59.2 in 2019.

NEW WATER USE EFFICIENCY GOALS

Under the WUE Rule, the City must set new water use efficiency goals. These goals must include a measurable outcome, address water supply or demand characteristics, and include an implementation schedule.

New Goals

In an effort to improve water efficiency, the City plans to have both a consumption goal (Goal 1) and a production goal (Goal 2).

- Goal 1: Increased consumer conservation. This shall be measured by the average day demand of an ERU (ERU_{ADD}) with the goal of reducing ERU_{ADD} by 0.75 percent each year over the next 10 years. This consumer conservation would save an estimated 130 million gallons of water over the 10-year planning period. Table 5-5 summarizes the consumption goal, compares ERU consumption with and without increased conservation, and details potential yearly water savings.

TABLE 5-5**Goal 2: ERU_{ADD} Consumption Reduction Goal Summary**

Year	Projected ERUs (excluding DSL)	No Conservation		Conservation		Yearly Water Savings (MG)
		ERU _{ADD} ⁽¹⁾	Average Daily Consumption (gpd) ⁽²⁾	ERU _{ADD} ⁽³⁾	Average Daily Consumption (gpd)	
2021	3,864	158	609,062	155	599,960	3.3
2022	3,911	158	616,585	154	602,815	5.0
2023	4,035	158	636,050	153	617,182	6.9
2024	4,204	158	662,702	152	638,221	9.0
2025	4,404	158	694,288	151	663,625	11.2
2026	4,601	158	725,249	150	688,020	13.6
2027	4,775	158	752,683	148	708,690	16.1
2028	4,973	158	783,957	147	732,600	18.8
2029	5,178	158	816,279	146	757,084	21.6
2030	5,379	158	847,932	145	780,543	24.6
Total						130

(1) Average day consumption per ERU from Table 2-8

(2) From Table 2-15

(3) 0.75 percent decrease in ERU_{ADD} per year

- Goal 2: Reduce distribution system leakage to 10 percent by 2026 in order to comply with the DSL leaking standard. In 2019, the City's unaccounted DSL was 25.6 percent, resulting in a 3-year rolling average of 22.4 percent. The City will use leak detection and data accuracy verification in order to reduce the DSL to 20 percent in 2020. DSL will be further reduced by 1.5 percent each of the following years until 10 percent DSL is reached in 2026. The 3-year rolling average is targeted to reach 10 percent by 2028. Table 5-6 summarizes the production goal.

TABLE 5-6

Goal 1: DSL Reduction and Production Goal Summary

Year	DSL w/o WUE Goal⁽¹⁾	Target DSL	Target 3-Year Rolling Average
2020	19.6%	19.0%	17.9%
2021	18.4%	17.5%	18.3%
2022	18.2%	16.0%	17.5%
2023	17.7%	14.5%	16.0%
2024	17.1%	13.0%	14.5%
2025	16.5%	11.5%	13.0%
2026	15.9%	10.0%	11.5%
2027	15.4%	10.0%	10.5%
2028	14.9%	10.0%	10.0%
2029	14.4%	10.0%	10.0%
2030	13.9%	10.0%	10.0%

(1) Assumed DSL in projections shown in Table 2-15.

Target Water Savings Projections

Table 5-7 compares average day consumption, DSL, and production with and without savings from the enactment of water use efficiency goals. If these goals are met, a cumulative 332 million gallons of water could be saved between 2021 and 2030.

TABLE 5-7**Projected Water Use Efficiency Savings**

Year	Average Day Consumption w/o WUE Goals (gpd)⁽¹⁾	Average Day Consumption w/WUE Goals (gpd)⁽²⁾	DSL w/o WUE Goals⁽³⁾	DSL w/WUE Goals⁽⁴⁾	Average Day Production Without WUE Goals (gpd)⁽¹⁾	Average Day Production with WUE Goals (gpd)⁽⁵⁾	Yearly Water Savings (MG)⁽⁶⁾
2021	609,062	599,960	18.4%	17.5%	746,048	704,953	15.0
2022	616,585	602,815	18.2%	16.0%	753,571	699,266	19.8
2023	636,050	617,182	17.7%	14.5%	773,036	706,673	24.2
2024	662,702	638,221	17.1%	13.0%	799,689	721,190	28.7
2025	694,288	663,625	16.5%	11.5%	831,274	739,942	33.3
2026	725,249	688,020	15.9%	10.0%	862,235	756,822	38.5
2027	752,683	708,690	15.4%	10.0%	889,669	779,559	40.2
2028	783,957	732,600	14.9%	10.0%	920,943	805,859	42.1
2029	816,279	757,084	14.4%	10.0%	953,265	832,792	44.0
2030	847,932	780,543	13.9%	10.0%	984,918	858,597	46.1
Total							332.0

(1) From Table 2-15.

(2) From Table 5-6.

(3) Based on projected daily DSL loss in Table 2-15.

(4) From Table 5-7.

(5) Average Day Production with WUE Goals = (Average Day Consumption with WUE Goals)*(1+ DSL With WUE Goals).

(6) Yearly Water Savings = Average Day Production w/o WUE Goals – Average Day Production w/WUE Goals.

WATER USE EFFICIENCY MEASURES

The WUE Rule requires the evaluation or implementation of different water use efficiency measures to help meet the WUE goals. The WUE Guidebook gives a list of mandatory measures that must be implemented or evaluated as well as a list of supplemental measures that can be counted toward the WUE Program. WAC 246-290-810 identifies the minimum number of water use efficiency measures that must be evaluated based on system size. As the City of North Bend serves between 2,500 and 9,999 customers, the WUE Program must evaluate or implement a minimum of six water use efficiency measures.

The following sections describe both the mandatory and supplementary water use efficiency measures adopted by the City, and indicate which have been or will be implemented.

Mandatory Measures

Implement Source and Service Metering and Meter Calibration

The City currently meters all sources and customer connections and will continue to meter all new customers and sources. Service meters are tested for accuracy upon customer request or if the City feels testing is warranted. The City began a 15-year meter replacement program in 2019, with all meters scheduled to be replaced by the end of 2034.

Implement Leak Detection and Water Accounting

The City began its leak detection program in 2010. The program calls for system-wide leak detection a minimum of once every 3 years or whenever a large increase in DSL occurs. The program located 12 leaks in 2016 and 11 in 2019. All the 2016 leaks were repaired while only nine of the 2019 leaks could be located and repaired. These leaks typically ranged from a few gpm to 20 gpm. The City will continue to implement the distribution system leak detection program and will continue to focus on areas suspected of leaks and areas of aging infrastructure. Corrective action will be taken as necessary and when deemed viable.

The City continues monitoring customer accounts for leaks as well. City staff can identify potential leaks during meter reads. The City's touch-read meters can report if a meter has been running for 24 hours straight or if the reading is unusually high. The billing clerk reviews usage monthly, flagging high or low reads. The billing software can also be programmed to flag account usage based on percent variation from month-to-month.

Implement Customer Education

The City has and will continue to include information about water conservation and efficient use in bill inserts and newsletters. Examples of previous inserts and newsletters can be found in Appendix I.

Evaluate Conservation Rate Structure

The City has previously evaluated and enacted an inclining block rate structure to encourage efficient water use by their customers. After studies which considered the financial effects on both the City and customers, an inclining block rate structure was adopted for single-family residential and irrigation customers. Future rate studies will consider an inclining block rate structure for multifamily and commercial customers as well.

Evaluate Reclaimed Water Opportunities

The uses of reclaimed water for opportunities such as irrigation or other non-potable uses come at a uniquely high cost and could adversely affect the City of North Bend.

The City's well has been determined to affect the in-stream flows of the Snoqualmie River. As such, the City is required by the Department of Ecology to mitigate the effect of their water withdrawals on the river. Mitigation water requirements are calculated using an algorithm that takes into account well pumping rate, wastewater treatment plant effluent flow, USGS streamflow gages, and mitigation water from Hobo Springs. The effluent flow from the wastewater treatment plant is a key component that factors into these mitigation requirements. As a result, any benefit from developing reclaimed water uses would have to be offset by increased mitigation from other sources.

Any potential use of reclaimed water would decrease the wastewater treatment plant effluent which flows back to the Snoqualmie River. This would negatively affect the City's ability to use its water resources. Consequently, reclaimed water use will not be implemented as a water use efficiency measure. A water reclamation checklist for the City's water system is included in Appendix I.

Supplementary Measures

The City has either evaluated or implemented all mandatory measures discussed in the previous section in an effort to further reduce water use. The following supplementary measures will also be implemented as part of the WUE Plan.

Additional Customer Education

The City's website includes water use efficiency information on a page titled "Water Conservation." This page includes an introduction to water conservation as well as links to more in-depth documents prepared by the City to help customers use water more efficiently. The topics covered apply to single-family residential, multi-family residential, commercial customers and landscaping.

Bill Showing Consumption History

The City includes updated consumption history in bills sent to single-family residential, multi-family residential, and commercial customers. This allows the customer to track their water use and compare usage over multiple billing periods.

Conservation Pricing

The City currently has an inclining block rate structure to encourage efficient water use by its single-family residential and irrigation customers. The City charges a commodity fee determined by the size of service line and an increasing block on water use by volume. Customers outside the City limits are also billed a higher rate. The City's water rates can be found in Table 8-1.

Summary of Supplemental Measures

Based on its number of connections, the City must either implement or evaluate six water use efficiency measures. The City has either implement or evaluated five mandatory measure and three supplementary measure, for a total of eight WUE measures.

Evaluation of Measures

Many of the measures selected for continued implementation require little additional funding, such as including consumption history in bills and including information in inserts and online. The City will track the finances associated with each measure and compare it to water saved to evaluate the effectiveness of each measure. If measures do not provide enough savings to meet goals, additional measures will be considered.

OPTIMIZING USE OF CURRENT SUPPLIES

The City plans to continue efforts to further optimize current water supply. The City's current water rights allow for a total water withdrawal of 3,430 acre-feet per year. Implementing efficiency measures will help to not only reduce annual water use but also minimize effects to the Snoqualmie River along with the corresponding mitigation water requirements.

PERFORMANCE REPORTING

The City must set water use efficiency goals and report progress annually. The annual report must include:

- Total source production;
- Distribution system leakage in percentage and volume; and
- Goal description, schedule, and progress toward meeting goals.

Annual reports will be available to the public and submitted to customers and DOH. The Annual Report for 2018 is included in Appendix I.

WATER LOSS CONTROL ACTION PLAN

In 2019, the City's DSL was 25.9 percent with a 3-year rolling average DSL of 22.4 percent. Both DSL values are above the distribution system leakage standard of 10 percent. As a result, the City must implement a Water Loss Control Action Plan. The following elements are included in the Plan:

- The water loss control methods include meter replacement for increased accuracy and pipe replacement to reduce leakage.
- The City will work to reach the 10 percent yearly standard by 2026 and the 10 percent 3-year rolling DSL standard by 2028. A more detailed schedule for reaching the 10 percent DSL standard can be found in Table 5-7.
- Leak detection has already been part of the City's operating budget but will now be shown as a separate line item in financial projections in Table 8-6. The City's Capital Improvement Plan, which is detailed in Chapter 7, calls for the continuation of the City's meter replacement program as well as new replacement projects for asbestos concrete (AC) and leaking water mains. Both the meter replacement and water main replacement projects are included in the financial projections in Table 8-6 under Capital Projects.
- There are no anticipated technical or economic concerns that could prevent the City from complying with the standard.

ASSESSING DATA ACCURACY AND COLLECTION METHODS

The City has taken and will continue to take measures to ensure the accuracy of its water production and consumption data. The master meters at both the Mount Si Springs Booster Station (2017) and the Centennial Well (2019) were replaced. Both new

magnetic flow meters continuously transmit readings to the City's SCADA system. Readings are also recorded manually on a daily basis by City staff.

In July and August 2019, the flow leaving the Centennial Well was under-reported by 50 percent after routine maintenance after the magnetic flowmeter was reinstalled incorrectly. Corrective measures were implemented to provide the necessary mitigation water and fix the meter. A summary of these events and actions can be found in the incident report in Appendix J.

Many of the City's water service meters are touch-read meters which were installed over 20 years ago. There has been concern these meters are nearing the end of their useful life and have begun under-reading consumption volumes. This could ultimately be both costing the City water revenues and increasing the system's reported DSL. In 2019, the City began its meter replacement program which will replace all service meters over the next 15 years. The new meters will be Neptune drive-by radio-reads. The meter replacement program may be accelerated if additional funds become available or initial replacements result in a significant decrease in DSL.

FIELD ACTIVITIES TO REDUCE LEAKAGE

The City performs leak detection, at minimum once every 3 years, or when there is a large increase in DSL. City staff identified 12 leaks in 2016 and 11 leaks in 2019. The City will continue its leak detection program and prioritize the replacement of aging water mains with frequent leaks or breaks.

WATER LOSS CONTROL METHODS

The City plans to employ several aggressive water loss control methods to reduce leakage and eliminate water accounting inaccuracies described below.

To address system leakage, the City will continue the previously described leak detection program.

To reduce the potential of meter reading inaccuracies, the City will continue its large meter calibration program. All 2-inch up to 4-inch meters are calibrated every 3 to 5 years and all 4-inch and larger meters are calibrated every 1 to 3 years.

The City's touch read meter registers alert meter reading staff when service meters fail. Upon receiving this error, the meter is checked and, if necessary, repaired or replaced. The City is also aware that many service meters may have reached the end of their useful life and could be under-reading consumption volume. A 15-year meter replacement program began in 2019 and could be accelerated if proven to be effective at reducing DSL.

The City's Capital Improvement Plan, as outlined in Chapter 7, includes an aggressive

pipe replacement program for aging pipes, especially those with a history of leakage. The City's 10-year Capital Improvement Program includes over 12,000 linear feet of pipe replacement. This pipe replacement will include over 10,000 linear feet of aging AC pipe, a likely contributor to DSL.

Funding for these projects is discussed in Chapter 8 and detailed in Table 8-6.

CHAPTER 6

OPERATION AND MAINTENANCE PROGRAM

WATER SYSTEM MANAGEMENT AND PERSONNEL

The City of North Bend is governed by a mayor and a city council. Water system staff includes an operator and three maintenance workers. The certification status of the water utility staff is shown below:

Mr. Kraig Kramer (CCS, WDM2, WTPO-OIT) – Lead Water System Operator

- Water Distribution Manager 2
- Cross-Connection Control Specialist 1
- Water Treatment Plant Operator-In-Training

Mr. Jake Thompson (CCS, WDM2, WTPO2-OIT, BAT) – Water System Maintenance Worker

- Water Distribution Manager 2
- Cross-Connection Control Specialist 1
- Backflow Assembly Tester 1
- Water Treatment Plant Operator 2 – In Training

Mr. Jim Cassasa (WDM2, WTPO2) – Water System Maintenance Worker

- Water Distribution Manager 2
- Water Treatment Plant Operator 2

Mr. Nick Johnson – Water System Maintenance Worker

OPERATOR CERTIFICATION

State law requires Group A public water systems to retain operators certified as competent to operate and manage the system. WAC 246-292 describes the requirements for cities and for operators. The City serves a population between 1,501 and 15,000 and is classified as a Group 2 water system per WAC 246-292-040. The City is required to employ at least one water district manager (WDM) with a certification level at or above the City's group classification. The City has three operators with suitable certification.

PROFESSIONAL GROWTH REQUIREMENTS

In order to promote and maintain expertise for the various grades of operator certification, Washington State requires that all certified operators complete not less than three Continuing Education Units (CEU) within each 3-year period. Programs sponsored by both Washington Environmental Training Resources Center (WETRC) and the American Waterworks Association (AWWA) Pacific Northwest Subsection are the most

popular source of CEUs for certified operators in Washington State. The City's operators currently have the required number of CEUs.

Operator training is an important component in maintaining a safe and reliable water system. At a minimum, all personnel performing water system related duties should receive training in the following areas:

- Confined Space
- Trenching and Shoring
- Traffic Flagging
- Asbestos Cement Pipe Safety
- Cross-Connection Control

The City's water system operators typically complete more than the required CEUs within a given period. All utility workers are certified in asbestos cement pipe safety, CPR and first aid, and all are certified in traffic flagging. Other utility staff have expressed interest in and are encouraged to become certified as WDM-1 and CCCS. Each year, the City allocates funds for water system operator training.

SYSTEM OPERATION AND CONTROL

SCADA SYSTEM

The City's water system facilities are automatically controlled by a computer-based digital telemetry and supervisory control system, or Master Telemetry Unit (MTU). The MTU remotely operates the Mount Si Springs Booster Station and the Centennial Well according to the water level in the Nintendo reservoir. The 710 Booster Station is remotely controlled by the level in the Forster Woods reservoir. The 780 Booster Station is controlled by the pressure in the 780 Zone. In early 2017 the existing Wonderware SCADA software was replaced with a GE Fanuc iFix SCADA system that includes a much more comprehensive historical data logging system, a software alarm dialer, remote access capabilities, and a special report generation software. The computer-based telemetry system also provides remote control and alarm presentation with callout functionality at the City's existing sewage treatment plant and Public Works Shop, which have fiber optic connections. The remote access feature provides operators a secure interface to the SCADA system via the internet using a laptop, tablet, or smartphone. This feature is utilized primarily by on-call operators to assess alarm callouts prior to physical arrival at the site. The Data Historian is installed on a cloud server (Azure) and is connected to the iFix Data Collector installed on the SCADA server at the WWTP. If the internet connection between the SCADA server and the Data Historian is down, the SCADA server buffers the data until the connection to the Historian is reestablished and then backfills any missing data. This feature maintains the integrity of the Data Historian.

The system includes a remote telemetry unit (RTU) at each pumping facility and at each reservoir. Each RTU provides the interface between the MTU at the Wastewater Treatment Plant (WWTP) and the field device where the RTU is located. It also provides local field control as necessary and stores data until it is transferred to the control computer at the WWTP. Each RTU communicates with the control computer by a radio frequency link (with the exception of the Hobo Springs mitigation RTUs, which were converted from serial radio to Ethernet cellular communication in December of 2018). The WWTP contains the control computer and the main controller which receives information from each RTU. The MTU allows the water system operator to access the control set points of each facility and modify these set points. The computer also provides graphic displays via the monitor, software-based alarm dialer, and data collection that is forwarded to the Cloud-based Data Historian. Once the data are stored in the Historian it can easily be extracted into several different formats for analysis. Currently, the Historian is recording data from a total of 395 tags for both the water and wastewater systems, of which approximately 75 percent are water system tags.

Table 6-1 provides the inputs and outputs of the telemetry system from each of the components of the water supply system.

TABLE 6-1
SCADA System Inputs/Outputs

594 Pump Station (Mount Si)	710 Pump Station	780 Pump Station	Centennial Pump Station
Inputs <ul style="list-style-type: none"> • Power failure • Pump 1 run/fail • Pump 2 run/fail • Pump 3 run/fail • Pumps H-O-A • Intrusion • PLC failure • Intrusion • PLC failure • Pump runtimes • Intrusion • PLC failure • Comm fail • Pressure • Low discharge pressure alarm • Flow rate 	Inputs <ul style="list-style-type: none"> • Power failure • Pump 1 run/fail • Pump 2 run/fail • Pump 3 run/fail • Pump runtimes • Intrusion • PLC failure • Comm Fail • Pressure • Low suction pressure alarm • Low Discharge pressure alarm • High discharge pressure alarm • Pump room flood alarm 	Inputs <ul style="list-style-type: none"> • Power failure • Pump 1 run/fail • Pump 2 run/fail • Pump 3 run/fail • PLC failure • Comm fail • Pressure • Low discharge pressure alarm • High discharge pressure alarm • Low suction pressure alarm • Flow rate • Low flow alarm • Fire • Level 	Inputs <ul style="list-style-type: none"> • Power failure • Alarms-Utility, UPS and DC • Pump run/fail • Pump H-O-A • PLC failure • Comm fail • Generator fail • Generator high temp • Generator low fuel • ATS breaker closed • Hypo Room Flood • Hypo Tank leak • Hypo Tank Level • Residual CL2 level • pH

TABLE 6-1 – (continued)**SCADA System Inputs/Outputs**

594 Pump Station (Mount Si)	710 Pump Station	780 Pump Station	Centennial Pump Station
Inputs (continued) <ul style="list-style-type: none"> • Flow total • Pond level (flow) • Weir low flow alarm • Chlorine leak • Clearwell low Level alarm • Power failure 	Inputs (continued) <ul style="list-style-type: none"> • Flow rate • Flow total • Fire • FW Tank Level 	Inputs (continued) <ul style="list-style-type: none"> • Low FWTank alarm • High FWTank alarm 	Inputs (continued) <ul style="list-style-type: none"> • Pressure • Residual CL2 low alarm • CL2 Room Fire Alarm • VFD Fail alarm • VFD High Temp • VFD breaker Closed • VFD full voltage • Opeator in trouble alarm • Pump room Intrusion • Flow rate • Flow totals • ATS Status • Generator running • Fire • Well Level • Generator Breaker closed • Service Breaker closed • Valve Power OK • Nintendo Tank Level • Flow Valve full open/full closed • Waste Valve full open/full closed

TABLE 6-1 – (continued)
SCADA System Inputs/Outputs

594 Pump Station (Mount Si)	710 Pump Station	780 Pump Station	Centennial Pump Station
Outputs <ul style="list-style-type: none"> • Pumps H-O-A • Weir flow setpoint • Pump off/level alarm setpoint 	Outputs <ul style="list-style-type: none"> • Pumps H-O-A • Domestic pumps start/stop setpoints (FWTank level) • Fire pump start/stop setpoint (FWTank Level) • Setpoints for high/low discharge pressure • Set points for Open/close of Bypass valve 	Outputs <ul style="list-style-type: none"> • None – monitor only 	Outputs <ul style="list-style-type: none"> • Pumps H-O-A • Pump start setpoint (Nintendo Tank level) • Well Flow Setpoint • Return Flow Setpoint • Return flow reset

MAJOR SYSTEM COMPONENTS

The locations of the major system components are shown on Figure 1-3, the system facilities map. A description of the normal operation of each facility is given in the following sections.

Telemetry

The Mt. Si Springs booster station, the Centennial Well, the 710 Booster Station, the 780 Booster Station and the three reservoirs each have a remote telemetry unit (RTU). The RTU records and transmits data to the Master Telemetry Unit (MTU) at the City's Wastewater Treatment Plant.

The pumps at Mount Si Springs and the Centennial Well are controlled by the water level in the Nintendo Reservoir. The water level is measured with a pressure transducer. The reservoir is 45 feet high. If the springs are in operation and the water level draws down to 37.5 feet, the currently selected pump (based on available flow over the weir) is activated. If the level in the tank drops to 36 feet, the low level alarm is activated. If the Centennial Well is in operation, the pump is activated at a tank level of 36.0 feet.

Currently, the pumps are set to shut off at the Mount Si Springs and the Centennial Well when the level in the Nintendo tank reaches 41.6 feet and 41.0 feet, respectively. It should be noted that these set points are operator adjustable and are sometimes modified to adjust to different operating conditions.

The level in the Forster Woods Reservoir determines when the pumps in the 710 Booster Station are activated. When the level drops to 36.0 feet, the domestic pump is turned on. When the level in the tank drops to 35 feet, the fire pump is activated. This reservoir has a high and a low level alarm. The low level alarm is activated at 35.5 feet and the high level alarm is activated at 43.4 feet. Table 6-2 provides the set points of the Nintendo, I-90, and Forster Woods Reservoirs.

The 780 Booster Station is controlled locally by the discharge pressure. The station's control panels call on pumps as necessary to maintain a constant 780 Zone pressure of approximately 55 psi using variable frequency drives.

The City's telemetry system is routinely maintained by the City's SCADA Supervisor with some assistance by Quality Controls Corporation (QCC).

TABLE 6-2

Reservoir Set Points

Action	Nintendo Reservoir		Forster Woods Reservoir
	Mount Si Springs	Centennial Well	710 Booster Station
Lead/Domestic Pump On	36.0 ft	36.0 ft	Lead/Domestic Pump On
Lead/Domestic Pump Off	43.0 ft	43.0 ft	Lead/Domestic Pump Off
Follow/High Service Pump On	35.0	35.0	Follow/High Service Pump On
Follow/Fire High Service Pump Off	37.0	37.0	Follow/Fire High Service Pump Off
Low Reservoir Alarm	35.5 ft	35.5 ft	Low Reservoir Alarm
High Reservoir Alarm	43.4 ft	43.4 ft	High Reservoir Alarm

Reservoirs

As described in Chapter 1, the City operates three reservoirs, with capacities of 2.0 MG (Nintendo), 0.75 MG (Forster Woods), and 0.5 MG (I-90). Water is normally pumped from the Mount Si Springs or the Centennial Well into the Nintendo and I-90 Reservoirs, which are located in the 594 Zone. Water is then pumped through a booster station into the Forster Woods Reservoir, which feeds the 710 Zone by gravity. Table 6-3 provides a summary of North Bend's reservoirs.

TABLE 6-3

North Bend Reservoirs

Name	Size (gallons)	Constructed	Material	Comments
Nintendo	2,000,000	1991	Concrete	Cleaned in 2020
Forster Woods	750,000	1994	Steel	Cleaned in 2020
I-90	500,000	1967	Steel	Cleaned in 2020

Source of Supply

The City obtains its water from the Mount Si Springs and the Centennial Well.

The pump station at the springs consists of three pumps that supply water to the reservoirs and the distribution system. One of the pumps was installed with the original development of the Springs in 1967. The other two were installed in 2017. The original pump was removed and completely rebuilt in 2001. Table 6-4 provides a summary of the pumps in operation at the Springs pump house.

TABLE 6-4

Mount Si Springs Pump Characteristics

Pump	Serial No.	Year Installed	Pumping Rate ⁽¹⁾	Motor	Date of Last Pump Rebuild
1 ⁽²⁾	671-S-0029	1967	825 gpm	50 hp	4/18/01
2		2017	800 gpm	60 hp	N/A
3		2017	375 gpm	25 hp	N/A

(1) Combined pumping rate is 2,000 gpm.

(2) Spare motor on site.

The City's Centennial well was brought online in February 2009. The well increases the City's water right capacity and provides redundancy to the spring source. The pumping rate of the well pump is currently limited by a pump control valve due to low system demand and operational needs. The pump control valve controls the flow to an operator-enterable set point, which is presently set at 1,100 gpm. Table 6-5 provides a summary of the pump at the Centennial Well.

TABLE 6-5**Centennial Well Pump Characteristics**

Pump	Serial No.	Year Installed	Pumping Capacity	Motor	Date of Last Pump Rebuild
1	326280	2009	2,500 gpm	250 hp	N/A

During winter operations the City generally runs only one source at a time based on input by the water system operator. In the winter, Mount Si Springs typically has adequate water to supply the entire system. As a result, the Centennial Well water and associated mitigation are not required.

In the summer months, both sources are run simultaneously. Mount Si Springs is operated such that the maximum amount of water is continuously conveyed while guaranteeing the minimum 3 cfs of bypass flow. Centennial Well is then used to make up the remainder of the demand and mitigation is implemented as necessary based on well withdrawals and instream flow.

PREVENTIVE MAINTENANCE PROGRAM

The most cost-effective method for maintaining a water system is to provide a planned preventive maintenance (PM) program. A planned PM program can provide the optimum level of maintenance activities for the least total maintenance cost. The routine maintenance procedures for each system component are described in the following sections.

Mount Si Springs

The spring source is visually inspected daily for security. The cover is kept locked and an 8-foot chain link fence surrounds the facility. The source is enclosed by a concrete manhole capped with a stainless steel hatch cover. The hatch cover was fabricated in 2001. The hatch cover is thoroughly cleaned at least every 2 months. Biodegradable soap is used and care is taken to avoid any spillage into the source. Rock salt is sprinkled around the concrete base to repel slugs and insects. Routine tasks for Mount Si Springs are summarized in Table 6-6.

Centennial Well

The well building is visually inspected daily for security. The pump room and chlorine room interiors are also visually inspected daily for any irregularities. Table 6-6 lists the routine tasks performed by the City at the Centennial Well.

Reservoirs

An improperly maintained reservoir can cause contamination in public water systems. Contaminants can enter the reservoir through cracks or openings at the vent, overflow, or drain screens. Deteriorating hatch covers and vandalism can also compromise reservoir water quality. Poorly designed and maintained reservoirs can hamper the emergency operation of a water system. If reservoir drains are not functioning properly, it may be impossible to purge a contaminant from the system. Written documentation of reservoir maintenance must be completed with each inspection and repair, and a copy of the report retained on file.

The existing three reservoirs are scheduled to be cleaned and inspected for leaks by divers at least every 5 years. Recent maintenance is listed in Table 6-1. Periodic maintenance of the reservoirs will include the following. The internal coating will be checked every 8 to 10 years. The checkup involves a photo video inspection of these interior walls. The exterior of the reservoirs will be pressure washed every 5 years to remove the buildup of moss.

Distribution System Valve and Hydrant Maintenance

The City currently exercises all valves in the system on an annual basis. The City uses a valve exerciser and records the valve maintenance on a maintenance form. A sample form is included in Appendix L. All fire hydrants in the system are exercised on an annual basis and after any construction in the immediate area of the hydrant.

Valves that do not close tight will be removed, repaired, or replaced. An important aspect of distribution system valve maintenance is to ensure distribution valves are completely open. A partially closed valve can significantly reduce peak day operation and fire flow supply. Example maintenance reporting forms are included in Appendix L.

Dead-End Waterlines

Dead-end waterlines are susceptible to water quality problems. The lines must be flushed at least semiannually or more frequently if water quality complaints should occur to remove stagnant water and debris which may have been deposited. The City currently flushes all dead-end mains in the system approximately twice every year as part of the water quality sampling program.

Booster Pump Stations

Table 6-6 lists the routine tasks performed at each of the City's four pump stations. Appendix L includes a summary of the maintenance recently performed upon the various components of the system.

TABLE 6-6**Pump Station Task Lists**

Location	Frequency	Data to Record	Tasks
Mount Si Spring Pump Station	Daily	<ul style="list-style-type: none"> • Time and Date • Chlorinator Rotometer Reading • Tank Levels: Nintendo and Forster Woods • Daily Water Demand • Pump Running Times • Power Meter Kilowatt Hours • Total Chlorine Usage in 24 Hours • Chlorine Residual at Faucet • Turbidity Level • Water Temperature at Faucet • pH Level at Faucet • Pond Level at Weir • Precipitation at Pond • Air Temperature 	<ul style="list-style-type: none"> • Check Water Discharge Pressure at Station • Check Pumps, Oil, Packing, Sound, Vibration, and Temperature • Check Propane Gas Tank • Check Oxygen Bottles are Full • Taste Water • Check Security • Check Alarm Panel
Centennial Well	Daily	<ul style="list-style-type: none"> • Time and Date • Chlorine Analyzer Reading • Tank Levels: Nintendo and Forster Woods • Daily Water Demand • Pump Running Times • Power Meter Kilowatt Hours • Total Chlorine Usage in 24 Hours • Chlorine Residual at Sample Tap • Water Temperature at Tap • pH Level at Sample Tap 	<ul style="list-style-type: none"> • Check Water Discharge Pressure at Station • Check Pump Oil, Packing, Sound, Vibration, and Temperature • Taste Water • Check Security • Check Alarm Panel

TABLE 6-6 – (continued)

Pump Station Task Lists

Location	Frequency	Data to Record	Tasks
710 Booster Pump Station	Daily	<ul style="list-style-type: none"> • Time and Date • Suction Pressure • Discharge Pressure • Tank Level • Totalizer Gallons Per Day • Hours of Pump Running Time • Kilowatt Power Usage 	<ul style="list-style-type: none"> • Check Telemetry • Check Security • Check Motor Noise, Temperature, and Vibration of Pumps • Check Pumps • Check Motors
780 Booster Pump Station	Daily	<ul style="list-style-type: none"> • Time and Date • Suction Pressure • Discharge Pressure • Tank Level • Totalizer Gallons Per Day • Hours of Pump Running Time 	<ul style="list-style-type: none"> • Check Telemetry • Check Security • Check Heating and Venting Motors • Check Pumps • Check Motors

Meters

Accurate water metering is essential to the financial and conservation components of the water system infrastructure. Substantial revenue may be lost through inaccurate metering of residential, commercial, and industrial accounts. Without accurate master or source meter readings, the water utility cannot determine lost and unaccounted for water volumes. With increasing concern for water use efficiency, accurate determination of water produced and water consumed is critical for the utility.

The City has 12-inch Endress and Hauser flow meters at the Mount Si Pump Station and the Centennial Well to quantify the amount of water pumped into the system. These meters have electronic-built (Heartbeat) monitor that verifies they are performing within factory tolerances. The City also verifies the accuracy of these meters with a parallel “clamp on” flow meter every year.

Approximately 20 years ago, the City replaced all residential service meters with Neptune Touch Read meters. These meters are read by a handheld device. This electronic device results in less work and accounting for the meter reader. The device is able to keep track of water usage and how often a meter has been read. All of the meters within the system are touch-read meters up to a size of 2 inch. There are two meters larger than 2 inch in the City’s water system, one 3-inch meter and one 4-inch meter. These meters do not have touch read registers and are read manually.

When the touch read registers on the service meters fail, the meter reading equipment indicates an error. The registers are checked during the following billing period to verify if repair or replacement is necessary. The expected lifetime of the registers is approximately 10 years.

In 2019, the City started a customer meter replacement program. Under this program, all customer-side meters will be replaced on a 15-year cycle. The new meters that are being installed are Neptune drive-by radio-reads, with the built-in capability of converting to a centralized reading (smart meter) technology in the future. Starting in early 2019, all meters installed for new developments are the new radio-read technology.

Service meters must be replaced according to the following schedule:

1. 3/4-inch and 1-inch meters will be replaced every 10 to 20 years, if necessary.
2. 2-inch through 4-inch meters will be tested and calibrated every 3 to 5 years.
3. 4-inch and larger meters will be tested and calibrated every 1 to 3 years.

Inventory of Materials

The City has sufficient supplies to repair DI pipes in the system from sizes ranging from 6 inch to 12 inch. The City also has service saddles ranging from 2 inch to 12 inch with varying tap sizes.

Maintenance Schedule

Table 6-7 is a schedule of normal maintenance and operations activities. The frequency listed is a minimum and the actual frequency will be adjusted as necessary to meet system requirements.

TABLE 6-7

Preventive Maintenance Schedule

Maintenance	Frequency
Check Distribution System and Note Any Suspected Leaks	Daily
Inspect Sources	Daily
Collect Routine Coliform Samples	Monthly
Read Commercial Meters	Monthly
Read Residential Meters	Monthly
Flush Dead-End Lines	Semiannually
Exercise Hydrants	Annually
Exercise Valves	Annually
Drain and Clean Reservoirs	Every 5 years

EMERGENCY RESPONSE PROGRAM

Water utilities have the responsibility to provide an adequate and reliable quantity and quality of water at all times. To meet this requirement, utilities must reduce or eliminate the effects of natural disasters, accidents, and intentional acts. Although it is not possible to anticipate all potential disasters affecting the City's system, formulating procedures to manage and remedy common emergencies is appropriate.

NOTIFICATION PROCEDURES

A procedure for quickly notifying all City staff, customers, other utilities, and if necessary, the local health department and DOH, of a water system related emergency is a necessary component of an Emergency Response Program.

Public Notification

In response to certain water system emergencies, it may be necessary to notify the public of drinking water quality concerns. WAC 246-290-320 indicates the follow-up actions

that must be taken in the event of water quality emergencies. The public notification requirements of WAC 246-290-320 refer to the Environmental Protection Agency's (EPA's) Public Notification (PN) Rule, which is codified in the Code of Federal Regulations (CFR) beginning at section 40 CFR 141.201. In addition to notifying its own customers, the City must notify any wholesale customers of water quality emergencies. The public notifications must provide specific health effects language provided by EPA.

The City notifies local television and radio resources by social media and press release to provide news releases during an emergency situation or other event that requires public notification.

Water System Personnel Emergency Contact List

The water system emergency phone list is summarized in Table 6-8 below.

TABLE 6-8

Water System Emergency Phone List

Agency/Group/Business	Contact	Phone Number
Fire/Police Emergency	--	911
Snoqualmie Police Department	--	(425) 888-3333
King County Police	--	(206) 296-3311
Washington State Patrol	--	(425) 401-7288
Sallal Water District	--	(425) 888-3650
East Side Fire and Rescue	--	(425) 313-3200
Telemetry and Meter Calibration	Chris Cole	(425) 888-7688
Chemical Supplies	Northstar Chemical	(888) 793-9476
Chemical Supplies	Jones Chemical	(253) 274-0104
Pump Repair	Grundfos	(425) 644-8501
Pipe/Fitting Supplies	Core & Main	(425) 393-4930
Pipe/Fitting Supplies	HD Fowler	(425) 746-8400
Control Valve Repair and Maintenance	G.C. Systems, Inc.	(253) 939-8322
Testing Lab (Coliform)	Am Test (Business Hours)	(425) 885-1664
	Am Test (After Hours)	(425)-770-7037
Washington State Department of Health	NW Regional Office, Bob James	(253) 395-6768
	After-hours (Utility staff use only)	(877) 481-4901
Washington State	Emergency Management	(800) 258-5990
King County	Emergency Management	(206) 296-3830
State Wide One-Call	Utility Locates	811
North Bend Public Works – Director of Public Works	Mark Rigos	(425) 888-7650
North Bend Public Works – Water System Supervisor	Kraig Kramer	(425) 888-7655
City of North Bend After Hours Dispatch	North Bend Public Works	(425) 736-7697
Consulting Engineer	Gray & Osborne	(206) 284-0860

EMERGENCY PROCEDURES

Although it is not possible to anticipate all potential disasters affecting the City's water system, formulating procedures to manage and remedy common emergencies is appropriate.

In the event an emergency situation should arise, the City has an emergency intertie with the Sallal Water District water system. The City can receive water through this intertie when disruptions to supply cause shortages. Additionally, the City has two sources of supply, providing redundancy and allowing either source to be temporarily removed from service in an emergency.

Water Shortage Emergency/Drought

The City has prepared a Water Shortage Response Plan, which can be found in Appendix M. This plan details the actions the City would take in a water shortage emergency to reduce water usage and inform the public of the water shortage.

Bacteriological Presence Detection Procedure

The most common problem for small systems is the detection of coliform bacteria, though all public systems may occasionally experience detection of bacteriological contaminants. Such detections are typically the result of sample tap contamination or improper bacteriological sample collection procedures. However, bacterial contamination of water systems can result from such events as main breaks or pollution from an isolated source. The persistent detection of coliform bacteria in the supply, particularly *E. coli* or fecal coliform, may require the issuance of a public boil water notice to ensure the health and safety of customers is not compromised. Emergencies such as floods, earthquakes, and other disasters can result in damage to the system infrastructure, which may also warrant a boil water notice as a precautionary measure.

The Revised Total Coliform Rule only requires public notification within 24 hours when two related samples (a routine and one or more of its corresponding repeat samples) test positive for total coliform bacteria — and there is *E. coli* bacteria in one or more of the samples. All customers should be notified through a boil water notice, a sample of which is provided in Appendix M. In the event a bacteriological presence is detected, the City's procedure is outlined in Table 6-9. WAC 246-290-320 requires utilities to follow specific procedures in the event coliform bacteria are detected in the system, as further discussed in the City's Coliform Monitoring Plan, which is included in Appendix H.

TABLE 6-9**Water Contamination Response**

Distribution System Contamination	
•	Perform chemical and free chlorine residual analysis at various locations within the system, including the reservoirs and the system extremities.
•	Disinfect distribution lines as dictated by the nature of the contamination.
•	Routine and repeat sampling to confirm continued presence or absence of contaminant.
Reservoir Contamination	
•	Isolate reservoir from system.
•	Resample to confirm contamination.
•	Check distribution system for presence of contamination.
•	Inspect vent screens, hatches, and piping to identify source of contamination.
•	If reservoir water is contaminated and therefore considered unsuitable for consumption, drain and clean reservoir.
•	Consider disinfecting reservoir if bacteriological standards are exceeded. Follow AWWA Standards. A 50-ppm chlorine solution in the reservoir can be obtained by adding 97 gallons of 5.25-percent chlorine bleach per 100,000 gallons of storage.

VOC and SOC Detection Procedures

Volatile organic chemical (VOC) and synthetic organic chemical (SOC) samples are routinely taken from supply sources. VOC and SOC tests include numerous different chemicals. VOCs and SOC are generally not detected in supply sources. Therefore, any detection of VOCs or SOC may warrant follow-up investigation even if it does not exceed an MCL. If routine VOC or SOC samples detect one or more chemicals, additional samples may be taken specifically for that chemical or possibly for a surrogate such as Total Organic Carbon if it reduces follow-up chemical testing costs. Follow-up procedures in the event of VOC or SOC detection are specified in WAC 246-290-320 (6). Follow-up actions may vary depending upon the specific chemical detected and the level at which it is detected. The DOH area representative should be contacted to coordinate follow-up sampling and appropriate responses.

Inorganic Chemical Detection Procedures

Inorganic chemical/physical characteristics (IOC) samples are routinely collected from sources. IOC tests include numerous different chemicals. If routine IOC samples detect one or more samples in excess of an MCL, additional samples may be collected specifically for that sample if it reduces follow-up chemical testing costs. Follow-up procedures in the event of an inorganic chemical/physical characteristics MCL violation are specified in WAC 246-290-320 (3). Follow-up actions may vary depending on the specific chemical detected and the level at which it is detected. The DOH area

representative should be contacted to coordinate follow-up sampling and appropriate responses. In the case of a lead and/or copper action level violation, follow-up procedures are specified in WAC 246-290-320 (4).

Power Failure

Various types of weather can cause a loss of power, including wind, lightning, freezing rain, or freezing snowstorm. Additionally, power can be lost through traffic accidents. The City's Centennial Well, 710 Booster Station, and 780 Booster Stations have backup generators on site, and the Mount Si Springs source is capable of connecting to a portable backup generator. The combined storage of 3.2 MG will provide average day demand to the City for 2.7 days in 2020, 1.9 days in 2030, and 1.4 days in 2040 while also ensuring required fire flow to all zones. City personnel will first check reservoir levels visually on a reader board at the tanks. Puget Sound Energy will be contacted at 1-888-225-5773 to determine the length of the power outage. Then customers will be notified of the emergency. Water conservation will be requested through social media, radio, television, newspaper, and/or police loudspeaker.

Water Main Break

The City has a Water Main Break Response Plan, which can be found in Appendix M. The plan outlines contact information, customer outreach, and protocols.

Chlorine Gas Leak

The city uses chlorine gas at the Mount Si Springs for disinfection. In the event of a chlorine gas leak, stopping the gas flow is critical to preventing the concentration from reaching toxic and corrosive levels. The City's chlorine gas facilities at Mount Si Springs are equipped with chlorine gas monitors which continuously measure the chlorine concentration in the chlorine rooms. Upon detection of a leak, the City's SCADA system would issue an alarm and operators would manually close valves to shut off gas supply.

If the gas flow from the leak is not immediately shut down, the evacuation of people who may be inside the chlorination buildings is critical. In the case of a life-threatening situation, the Fire Department is notified (Eastside Fire & Rescue) and emergency vehicles are dispatched to the location. Self-contained breathing apparatuses (SCBAs) are provided for personnel protection when entering the leak area. An eyewash is also provided on-site outside of the chlorine rooms for immediate personnel protection. After the building is cleared and the chlorine gas concentration has reached acceptable levels, trained Water Division personnel, along with the Fire Department, are sent to the site to repair the leak.

The City's Chlorine Storage and Use Procedures Manual, which includes emergency response procedures, is included in Appendix N.

Severe Earthquake

A severe earthquake can result in transmission line breaks, distribution system breaks and structural damage to the pump station, treatment facility, wells, reservoirs and vaults which house critical valving and meters.

Table 6-10 provides procedures to follow in the event of a severe earthquake.

TABLE 6-10

Severe Earthquake Response

System Component	Proposed Actions
Reservoirs	<ul style="list-style-type: none"> • Observe structures for visual signs of structural damage. • If structural damage is apparent, drain reservoir and inspect the interior of the tank • Check storm drainage system for significant flows, indicating possible reservoir leakage • If leakage is suspected, isolate one reservoir at a time and monitor level for at least 24 hours
Distribution Lines	<ul style="list-style-type: none"> • Close valves to isolate breaks • Check reservoir level • Notify customers of emergency and request water conservation
Transmission Lines	<ul style="list-style-type: none"> • Shut down source pumps • Isolate break and check the base system section maps for valve locations • Repair break • Disinfect isolated section
Booster Stations, Wells, Treatment Facilities & Meters	<ul style="list-style-type: none"> • Inspect for joint leakage and leaking chemical storage tanks • Inspect wells for operation • Inspect well seals to prevent contamination from entering the wellhead • Inspect for alignment of pump column and casing • Inspect screen integrity
Supply Facilities	<ul style="list-style-type: none"> • Inspect for leakage or other structural damage

Major Fire

In the event of a major fire within the service area, low-pressure conditions could result in the extremities of the distribution system due to fire suppression demand. Proper functioning of booster pump and PRV stations should offset this effect. In the event of fire or drastically low static pressures, valves should be checked, followed by the system

setpoints of pumps, reservoirs and PRV stations. The East Pierce Fire and Rescue is the first responder to a fire in the City.

Cold Weather Conditions

Extended cold weather conditions could cause freezing problems at shallow service connections, valve vaults without an insulating earth cover, reservoirs, supply and treatment facilities. Frozen lines can be wrapped with heat tape or space heaters can be used.

Distribution System Low/High Pressure

The water surface elevation in the storage reservoirs and booster station settings control distribution system pressures. Under normal conditions, the reservoir overflow levels set the maximum pressure within the 710 and 594 pressure zones. However, excess pressure may accumulate in these pressure zones if the distribution and transmission system is isolated from a reservoir. Pressure within the 780 pressure zone is contingent upon the settings of the two booster stations that service it, namely the 780 booster stations. The following table proposes investigative and corrective actions for both low and high pressure conditions.

TABLE 6-11

Distribution System High/Low Pressure Response

System Component	Proposed Actions	
	High Pressure	Low Pressure
Reservoirs	<ul style="list-style-type: none"> • Check reservoir levels • Manually discharge valves 	<ul style="list-style-type: none"> • Check reservoir levels • Check drain line • Check for leakage • Check control valves for proper operation
Distribution and Transmission Lines	<ul style="list-style-type: none"> • Excess pressure may cause damage to some older pipes. Open hydrants at various locations to reduce system pressure 	<ul style="list-style-type: none"> • Contact City Hall, Fire and Police Departments • Demands due to fires, open hydrant or peak demands may be the cause. • Check roads, storm drainage facilities and sewer manholes along distribution system for excessive flows that would indicate a broken main.
Booster & PRV Stations and Well Pumps	<ul style="list-style-type: none"> • Check pressure upstream and downstream at each facility • Reset PRVs 	<ul style="list-style-type: none"> • Check pressure upstream and downstream at each facility • Check for leakage

CROSS-CONNECTION CONTROL PROGRAM

The City's Cross-Connection Control Program was enacted through Ordinance 391 in 1974. The specifics of this ordinance are set forth in the North Bend Municipal Code Chapter 13.16. A copy of the ordinance, the most recent municipal code, and the City's Cross-Connection Control manual is located in Appendix O.

CROSS-CONNECTION DEVICE INVENTORY AND TESTING

The City's system contains approximately 586 cross-connection control devices as of September 2019.

It is the responsibility of the customer to ensure proper testing of the devices on an annual basis. The City must test its own cross-connection control devices annually as well. Customers are given up to three notices by the water department to comply with assembly testing. If compliance is not reached, the water service supplying the assembly in question is turn off. In recent years this City has maintained complete compliance.

NEW CROSS-CONNECTION DEVICE

New service applications are evaluated by the cross-connection control specialist to determine what type of backflow prevention device is needed, if any. New cross connection devices are catalogued and checked initially by City staff. Backflow prevention devices are required on all new cross connections. A condition for new services will be an evaluation by the cross-connection control certified City staff to determine what type of backflow device is needed.

CROSS-CONNECTION CONTROL PROGRAM RECORD KEEPING

A critical program element of a cross-connection control program is the maintenance of accurate records. The City maintains a computerized database of backflow prevention devices. Information kept includes address of device, type, size, date of last test and date of next test. Annual testing results for the devices are recorded and annual reports summary reports are prepared and sent to DOH. Kraig Kramer is the City's Cross-Connection Control Program manager.

WELLHEAD PROTECTION PLAN

The City's Wellhead Protection Plan is being updated in the spring of 2020.

CUSTOMER COMPLAINT PROGRAM

The City's water customers are encouraged to deliver their complaints and water infrastructure concerns by calling City Hall. If action or investigation is required to resolve the issue, an administrative official at City Hall shall write a Public Works Department work order. One or more Public Works employee(s) is then dispatched and the issue investigated and resolved. Upon resolution, a Public Works summary and response is generated and sent to the City's Billing Department for filing and record keeping.

RECORD KEEPING AND REPORTING

Record keeping and reporting requirements for public water systems are given in WAC 246-290-480. All records concerning water system operation as well as all DOH water main distribution system project construction completions reports, are located at the City's Public Works shop. Billing records and other official City records are retained at the City Clerk's Office.

OPERATION AND MAINTENANCE DEFICIENCIES

The City needs to finalize its Water Shortage Plan. As discussed in Chapter 3, this plan is crucial to the effort of minimizing peak seasonal demands during prolonged dry periods. The plan will ultimately help control and lowering the mitigation requirements and address mitigation capacity concerns.

Additionally, the City's SCADA system will undergo a series of upgrades over the next 5 years. These upgrades help will ensure proper water system operations and monitoring continues and are detailed in Chapter 7.

CHAPTER 7

CAPITAL IMPROVEMENT PLAN

INTRODUCTION

This Chapter presents the proposed schedule for the City's 10-year Capital Improvement Plan (CIP) in accordance with the requirements of WAC 246-290. Water system capital improvements are scheduled and prioritized on the basis of water quality concerns, growth, regulatory requirements, component reliability, system benefit, and financial priority. For the proposed projects identified in this Chapter, individual project descriptions, and preliminary project cost estimates for the 10-year CIP are provided in Appendix Q. Additional projects for the 20-year planning period have also been identified. When the Water System Plan is updated after 10 years, the projects presented for the 20-year planning period should be reevaluated and scheduled for the subsequent 10-year planning period, as necessary. A water system base map indicating proposed improvement projects is included as Figure 7-1.

In the future, other projects may arise that are not identified as part of the City's CIP. Such projects may be deemed necessary for ensuring water quality, preserving emergency water supply, accommodating transportation improvements proposed by other agencies, or addressing unforeseen problems within the City's water system. Due to budgetary constraints, the completion of these projects may require that the proposed completion date for projects in the CIP be rescheduled. The City retains the authority to reschedule proposed projects and to expand or reduce the scope of proposed projects, as best determined by the City Council. As the proposed completion date for the project approaches, each capital improvement project should be re-evaluated to consider the most recent planning efforts.

CAPITAL IMPROVEMENT PLAN

Table 7-1 summarizes the proposed capital improvement projects for the 10-year and 20-year planning periods. Project locations can be seen in Figure 7-1. All costs discussed in this Chapter are in February 2020 dollars, which corresponds to an Engineering News Record (ENR) Construction Cost Index (CCI) of 12,117 for the Seattle metropolitan area. Each project is discussed further in the following sections. Detailed cost estimates for the capital improvement projects are included in Appendix S. All project costs contain a 20 percent contingency and a 30 percent engineering and administration cost.

STORAGE IMPROVEMENTS

ST-1: I-90 Reservoir Recoating and Improvements

This project consists of interior and exterior recoating of the 0.5 MG I-90 Reservoir as well as seismic and security improvements. Security improvements include ladder access security, fencing improvements, and the installation of intrusion switches. The reservoir will also be retrofitted with a seismic valve in order to improve resiliency in the event of a seismic event. **Estimated Project Cost: \$831,000**

ST-2: Forster Woods Reservoir Recoating and Improvements

This project consists of interior and exterior recoating of the 0.75 MG Forster Wood Reservoir as well as seismic and security improvements. Security improvements include restricting stair access and incorporating new intrusion switches. The reservoir will also be retrofitted with a seismic valve in order to improve resiliency in the event of a seismic event. **Estimated Project Cost: \$979,000**

ST-3: New Reservoir at I-90 Site

A new 0.5 MG steel reservoir shall be constructed at the I-90 Reservoir site. The storage analysis summarized in Table 3-16 shows that the City will have adequate storage capacity through 2040 through nesting; however, the City wishes to ensure extra redundancy and flexibility by constructing an additional 500,000-gallon reservoir. The existing I-90 reservoir site has space and existing site piping installed in anticipation of expansion. This project will increase total storage capacity by 0.5 MG and would allow for greater flexibility when the I-90 or Forster Woods Reservoirs undergo maintenance or emergency repairs, if needed. **Estimated Project Cost: \$2,422,000**

SOURCE IMPROVEMENTS

SO-1: Centennial Well Variable Frequency Drive

This project consists of equipping the existing Centennial Well with a variable frequency drive (VFD). The VFD will allow for greater pump control as well as improved efficiency. **Estimated Project Cost: \$85,000**

SO-2: Centennial Well Pump Replacement

The Centennial Well assembly will likely need to be replaced at some point during the 20-year planning period. This could be as soon as following the Centennial well inspection (depending on inspection results) or past the 10-year planning horizon. This project would ensure source availability. **Estimated Project Cost: \$229,000**

Legend

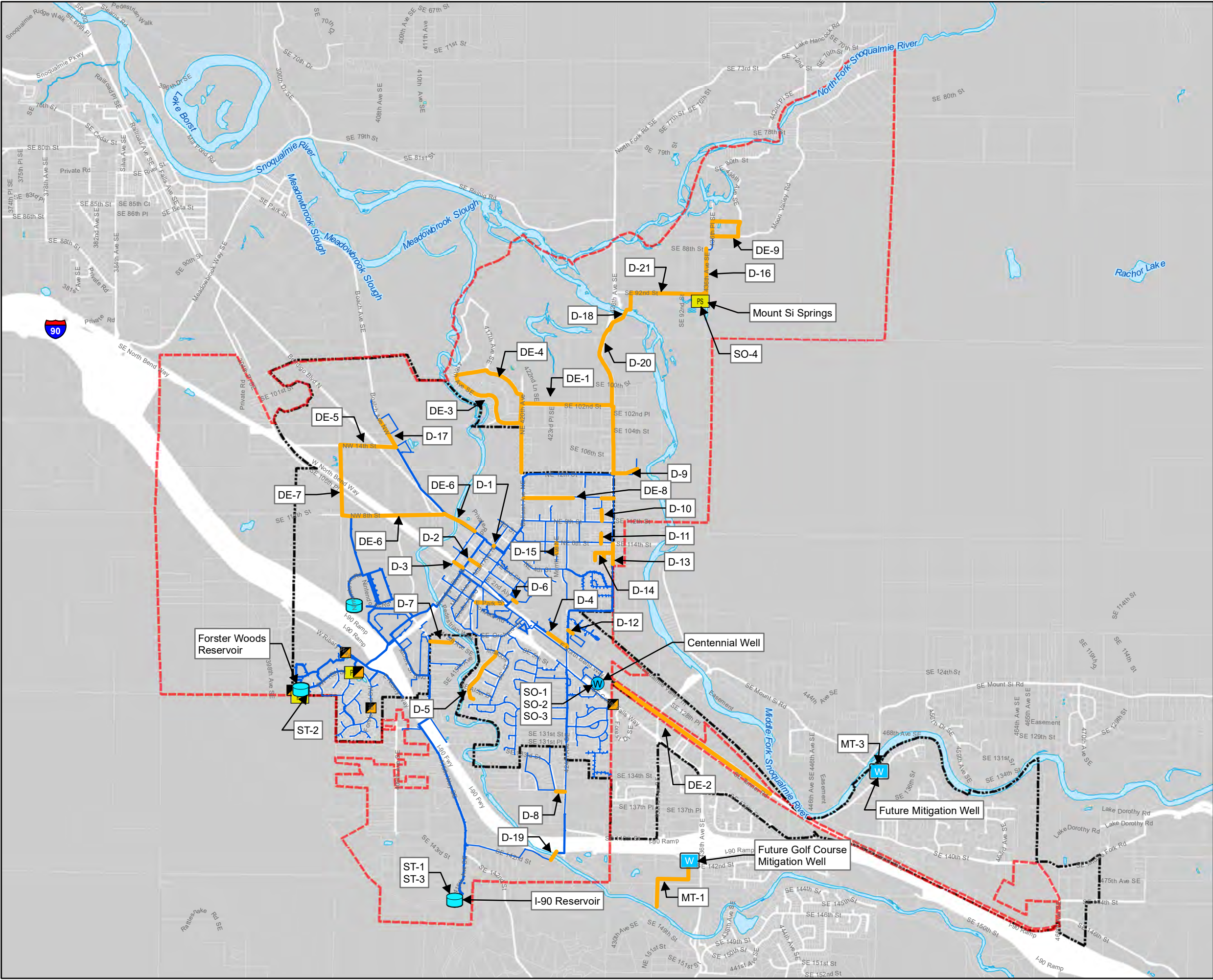
- CENTENNIAL WELL
- Mitigation Well
- PRV
- PUMP STATION
- RESERVOIR
- CIP Pipes
- Water Main Diameter:**
 - Less than 12"
 - 12" and Greater
- RETAIL SERVICE AREA
- NORTH BEND CITY LIMITS

Source:King County &
City of North Bend GIS
Data; Aerial



0 2,750 5,500 Feet
1" = 2,750'

CITY OF NORTH BEND
WATER SYSTEM PLAN
FIGURE 7-1
CAPITAL IMPROVEMENTS



SO-3: Mount Si Springs Air Gap Study (2021)

The Washington Department of Health has documented potential cross connection contamination concerns at the inlet of Mount Si Springs Pond in previous Sanitary Surveys. This project would fund a study and predesign report that would assess alternative solutions to eliminate this cross-connection and conclude with a recommended alternative. **Estimated Project Cost: \$30,000**

SO-4: Mount Si Air Gap Project (2023)

This project would implement the preferred solution determined from the air gap study detailed in SO-4. **Estimated Project Cost: \$500,000**

MITIGATION IMPROVEMENTS

MT-1: Golf Course Mitigation Well Improvements

In 2018 the City purchased the Cascade Golf Course, well, and irrigation water right with the intention of using it as a mitigation source. Presently, a well pump discharges to a pond, which provided equalizing storage for the irrigation system. In order to convert this system to a mitigation source the irrigation pump must be replaced and the PLC must be integrated with the City's SCADA system. In addition, roughly 1400 feet of 6-inch HDPE pipe must be installed to connect the pond with the South Fork of the Snoqualmie River. The Department of Ecology has indicated the presence of an abandoned well on the the Cascade Golf Course property. There is no documentation that the well was properly decommission as required by WAC 173-160-381. Investigation and proper decommissioning of this well is also part of the well improvements project. **Estimated Project Cost: \$371,000**

MT-2: Hobo Springs Improvement

Hobo Springs is the City's primary source of mitigation water. The intake and transmission main convey water from Hobo Springs to Boxley Creek (a Snoqualmie River tributary). The intake and transmission system were constructed in 2008. Excess water flows over the weir and could be captured with the construction of an additional caching basin. This project would increase the total mitigation water which could be conveyed from Hobo Springs. **Estimated Project Cost: \$302,000**

MT-3: Mitigation Well

The mitigation well located off Southeast Tanner Road was drilled but never equipped. This project would equip the well and add the piping necessary to discharge mitigation flow to the Middle Fork of the Snoqualmie River. This project is contingent on the City being awarded a previously applied for water right and would ultimately increase the City's mitigation capabilities. **Estimated Project Cost: \$1,027,000**

MT-4: Sallal Mitigation Intertie

The majority of the infrastructure for the Sallal intertie was constructed in 2008. What remains are SCADA and telemetry upgrades, and constructing approximately 400 feet of 12-inch DI main to connect the intertie to Sallal's Well 2. This project would increase the City's access to mitigation water and is contingent on the City and Sallal reaching a wholesale water agreement. **Estimated Project Cost: \$312,000**

MT-5: Mitigation Reservoir

The City is completing a feasibility study, analyzing potential sites for a 10 MG mitigation reservoir. This reservoir would be filled using diverted Snoqualmie River water during periods of high in-stream flow and water would then be released when mitigation water is required. **Estimated Project Cost: \$12,000,000**

DISTRIBUTION IMPROVEMENTS

Sections of the City's distribution system need to be replaced to ensure water supply reliability. These projects fall under two categories: (1) fire flow improvements and (2) replacement of aging water mains. The cost of projects with similar distances of pipe may vary due to the number of service connections and connections to the existing distribution system that are required.

D-1: Main Avenue North and West 4th Street

Replacement of 100 linear feet of 6-inch AC with 8-inch DI main at the intersection of Main Avenue North and West 4th Street. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$83,000**

D-2: West 2nd Street

Replacement of 400 lineal feet of 6-inch AC with 10-inch DI main on West Second Street between Main Avenue North and Bendigo Boulevard North. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$238,000**

D-3: West North Bend Way

Replacement of 400 linear feet of 6-inch AC with 12-inch DI main on West North Bend Way between Sydney Avenue North and Bendigo Boulevard North. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$268,000**

D-4: East North Bend Way and Thrasher Avenue NE

Replacement of 800 linear feet of 6-inch AC with 8-inch DI main on the north side of East North Bend Way between the Torguson Park entrance and Thrasher Avenue NE. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$332,000**

D-5: Riverside Drive

Replacement of 2,000 linear feet of 6-inch and 4-inch AC with 8-inch DI main on Riverside Drive SE and SE Alder Drive. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$828,000**

D-6: End of East 2nd Street

Replacement of 200 linear feet of 8-inch DI main with 16-inch DI main at the end of East 2nd Street at East 2nd Street and Downing Avenue North. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$204,000**

D-7: SE 123rd Street and 415th Avenue

Replacement of approximately 750 linear feet of AC with 8-inch DI water main. **Estimated Project Cost: \$359,000**

D-8: SE 136th Street

Replacement of 300 linear feet of existing 6-inch AC water main with 8-inch DI water main on Southeast 136th from 422nd Avenue Southeast to 423rd Avenue Southeast. This project will improve fire flow availability. **Estimated Project Cost: \$146,000**

D-9: End of SE 108th Street

Replacement of 750 linear feet of 6-inch AC with 8-inch DI main on Southeast 108th Street from 428th Avenue SE to the dead end. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$300,000**

D-10: Borst Avenue NE and NE 9th Street

Replacement of 350 linear feet of 4-inch AC with 8-inch DI main on Borst Avenue NE between NE 9th Street and NE 8th Street. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$176,000**

D-11: Borst Avenue NE and NE 6th Street

Replacement of 350 linear feet of 6-inch AC with 8-inch DI main on Borst Avenue NE from NE 6th Street to the street's dead end. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$169,000**

D-12: Thrasher Avenue NE

Replacement of 200 linear feet of 6-inch main with 8-inch DI main where the main branches off Thrasher Avenue NE between East North Bend Way and NE 2nd Street behind the Ranger Station. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$112,000**

D-13: Picket Avenue NE

Replacement of existing 6-inch AC water main with 600 linear feet of 8-inch DI main from NE 5th Street to the end of Picket Avenue NE. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$290,000.**

D-14: Taylor Place NE, Boxley Place NE, and NE 5th Street

Replacement of existing 6-inch AC water main with 600 linear feet of 8-inch DI main on Taylor Place NE, NE 5th Street and Boxley Place NE. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$291,000**

D-15: Merritt Avenue NE

Extension and replacement of existing 4-inch AC water main with 500 linear feet of 8-inch DI main on Merritt Avenue NE, south of NE 6th Street. This project will improve fire flow availability. **Estimated Project Cost: \$229,000**

D-16: 436th Avenue NE

Replacement of existing 6-inch water main with 1,400 linear feet of 12-inch DI main on 436th Avenue NE from SE 92nd Street to 436th Place SE. This project will improve fire flow availability. **Estimated Project Cost: \$770,000**

D-17: Mount Si Business Park Fire Flow Improvements

This project should only occur after the completion of Developer Extensions 5, 6, and 7 and include the replacement of 1,750 linear feet of 12-inch main with 16-inch DI main on North Bend Boulevard. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$1,132,000**

D-18: Middle Fork River Crossing

Replacement of existing 12-inch CI water main with 100 linear feet of 16-inch DI and 500 LF of 16-inch HDPE. The existing water main was installed under the river, may be seismically deficient, and is nearing the end of its useful life. The crossing is also suspected to be a contributor to the City's DSL. The new water main will be installed via horizontal directional drilling. **Estimated Project Cost: \$558,000**

D-19: South Fork River Crossing

Replacement of existing 12-inch DI water main with 100 linear feet of 12-inch DI and 600 LF of 16-inch HDPE. The existing water main was installed under the river, may be seismically deficient, and is nearing the end of its useful life. The crossing is also suspected to be a contributor to the City's DSL. The new water main will be installed via horizontal directional drilling. **Estimated Project Cost: \$533,000**

D-20: 428th Avenue SE to River Crossing

Replacement of existing 12-inch AC water main with 5,000 linear feet of 16-inch DI main along 428th Avenue SE from NE 12th street to the Middle Fork river crossing. This project will replace aging AC water mains. **Estimated Project Cost: \$3,225,000**

D-21: 428th Avenue SE and SE 92nd Street

Replacement of existing 12-inch AC water main with 2,750 linear feet of 16-inch DI main on 428th Avenue SE north of the Middle Fork river crossing and along SE 92nd Street. This project will replace aging AC water mains. **Estimated Project Cost: \$1,730,000.**

DEVELOPER EXTENSIONS

The following improvements will largely be financed by private developers, as future areas of growth are platted and developed. The projects listed below identify the transmission main size and configuration required to serve the proposed areas of development. Actual alignments may vary depending on the dedication of future rights-of-way. Local distribution system piping will be provided by the developer, as necessary. The improvements listed represent the minimum modifications to the transmission system. Water mains should be looped as indicated on the capital improvements map. If lines are not immediately looped, water lines may be oversized in order to meet the required fire flow demand.

DE-1: 420th Avenue SE and SE 102nd Street

This transmission main will be constructed on 420th Avenue SE north of NE 12th Street and continue on SE 102nd Street until it connects with 428th Avenue SE. This project will consist of approximately 4,000 linear feet of 12-inch DI main. **Estimated Project Cost: \$2,128,000**

DE-2: SE North Bend Way

This transmission main will be constructed from the City's Centennial Well down East North Bend Way to 436th Avenue SE. This project will consist of approximately 3,200 linear feet of 16-inch DI main. **Estimated Project Cost: \$2,014,000**

DE-3: 417th Avenue SE

This transmission main will be constructed on 417th Avenue SE. It is the first half of the project to loop a transmission line through the Circle River area. The project will consist of the construction of approximately 2,500 linear feet of 12-inch DI main. **Estimated Project Cost: \$1,336,000**

DE-4: SE 101st Street

This transmission main will be constructed on SE 101st Street. It is the second half of the project to loop a transmission line through the Circle River area. The project will consist of the construction of approximately 1,700 linear feet of 12-inch main. **Estimated Project Cost: \$917,000**

DE-5: NW 14th Street

This transmission main will be constructed on NW 14th Street. The project will consist of the construction of approximately 1,500 linear feet of 12-inch DI main. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$814,000**

DE-6: NW 8th Street

This transmission main will be constructed on NW 8th Street and will connect to the existing 20-inch main north of the Nintendo campus. The project will consist of the construction of approximately 3,000 linear feet of 16-inch main. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$1,899,000**

DE-7: NW 8th Street to NW 14th Street

This transmission main will be constructed to loop the main extensions on NW 8th Street and NW 14th Street. The project will consist of the construction of approximately 2,000 linear feet of 16-inch main. This project will improve fire flow availability (see Table 4-10). **Estimated Project Cost: \$1,264,000**

DE-8: NE 10th Street from 428th Avenue to Borst Avenue NE

Construction of 2,000 linear feet of 12-inch DI main on NE 10th from 428th Avenue to Borst Avenue NE and from Ballarat Avenue to the east. **Estimated Project Cost: \$1,264,000**

DE-9: SE 87th Street, 436th Place SE, and 438th Place SE Loop

This transmission main will comprise a 1,500 linear foot loop extension of 12-inch DI main on SE 87th Street, 436th Place SE, and 438th Place SE. **Estimated Project Cost: \$226,000**

MISCELLANEOUS IMPROVEMENTS

MSC-1: Meter Replacement Program

In 2019 the City Council approved funding for a 15-year customer meter replacement program. All meters will be replaced by 2033. **Estimated Project Cost: \$525,000, \$35,0000 annually (2020-2033)**

MSC-2: Source and Storage SCADA and PLC Upgrades

The PLCs and SCADA system at the Centennial Well, Mount Si Springs, I-90 Reservoir, Nintendo Reservoir, and Forster Woods Reservoir all need to be upgraded to be Ethernet compatible. These water system components operated in tandem and should be replaced at the same time. **Estimated Project Cost: \$178,000**

MSC-3: Booster Pump Station SCADA and PLC Upgrades

The PLCs and SCADA system at the 710 and 780 Booster Pump Stations all need to be upgraded to be Ethernet compatible. These system components can be upgraded after the source and storage upgrades. **Estimated Project Cost: \$51,000**

ASBESTOS CONCRETE REPLACEMENT

The City has inventoried all asbestos concrete (AC) water mains that will not be replaced in the distribution system improvements discussed above. All remaining AC mains can be seen in Figure 7-2. Table 7-1 provides a quantitative summary as well.

TABLE 7-1**Asbestos Cement Water Main Inventory**

Diameter	Total Length	Percentage of Total
4	7,057	16.1%
6	24,059	54.9%
8	5,012	11.4%
10	7,656	17.5%
Total	43,784	100%






Beginning in 2028, the City will dedicate \$600,000 every other year towards replacing approximately 1,400 linear feet of AC mains. AC main replacement projects will be coordinated annually with scheduled overlay, sewer, and water projects in order to maximize the beneficial use of these funds.

Replacing all the City's AC mains that are not part of the previously described distribution system improvements would cost approximately \$19,000,000. The City will be on pace to replace 10 percent of these pipes by 2030 and 26 percent by 2040.

SUMMARY OF RECOMMENDED IMPROVEMENTS

A prioritized schedule and cost summary for the recommended 10-year capital improvements are shown in Table 7-2. All costs shown are in 2020 dollars. The City may adjust and reschedule its capital improvement projects to accommodate unforeseen changes to projects and finances.

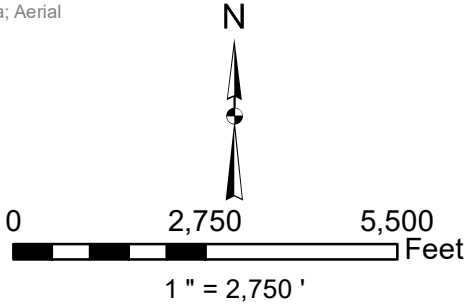
Legend

-  CENTENNIAL WELL
-  Mitigation Well
-  PRV
-  PUMP STATION
-  RESERVOIR

AC Water Main Diameter:

-  3" or less
-  4"
-  6"
-  8"
-  10"
-  12"
-  RETAIL SERVICE AREA
-  NORTH BEND CITY LIMITS

Source:King County &
City of North Bend GIS
Data; Aerial



CITY OF NORTH BEND
WATER SYSTEM PLAN
FIGURE 7-2
ASBESTOS CEMENT
PIPE INVENTORY



TABLE 7-2
Capital Improvement Plan Project Summary

Project Number	Project Description	Year to be Completed	Estimated Cost
MS-1	Meter Replacement Program	2019-2033	\$35,000/year
AC-1	AC Main Replacement	2028 & 2030	\$600,000/year
MT-1	Golf Course Well Improvements	2020	\$371,000
SO-1	Centennial Well Variable Frequency Drive	2021	\$85,000
SO-3	Mt Si Spring Air Gap Study	2021	\$30,000
MT-2	Hobo Springs Improvement	2021	\$302,000
D-13	Picket Avenue Northeast	2021	\$290,000
MS-2	Source and Storage SCADA and PLC Upgrades	2022	\$178,000
SO-4	Mt Si Spring Air Gap Project	2023	\$500,000
D-18	Middle Fork River Crossing	2023	\$442,000
SO-2	Centennial Well Pump Replacement	2024	\$229,000
MT-4	Sallal Mitigation Intertie	2025	\$312,000
MS-3	Booster Pump Station SCADA and PLC Upgrades	2025	\$51,000
D-21	Avenue Southeast and Southeast 92 nd Street	2025 & 2026	\$1,483,000
D-19	South Fork River Crossing	2026	\$558,000
D-1	Main Avenue North and West 4 th Avenue	2027	\$83,000
D-6	End of East 2 nd Street	2027	\$204,000
ST-1	0.5 MG I-90 Reservoir Recoating and Improvements	2028	\$831,000
D-3	Main Avenue North and Sydney Avenue North	2028	\$268,000
ST-2	0.75 MG Forster Woods Reservoir Recoating and Improvements	2029	\$979,000
D-2	North Bend Way and West 2 nd Avenue	2030	\$238,000
D-8	SE 136 th Street and 424 th Avenue SE	2030	\$146,000

(1) All cost estimates are shown in 2020 dollars. ENR CCI= 12,117 (February 2020).

CHAPTER 8

FINANCING PROGRAM

INTRODUCTION

This section outlines the City's financial plan for implementing the recommended capital improvement plan, paying operation and maintenance (O&M) expenses, and meeting debt service. This section also reviews the City's past and present financial status, available revenue sources, allocation of revenue sources, as well as the fiscal impact of the recommended capital improvements and rates.

WATER RATES

The City's water service rates were established by Ordinance No. 1707 effective January 1, 2020. These rates are summarized in Table 8-1. The rates include a base charge and a use charge. The base rate is dependent on the type and location of the customer. Use charges are based on an inclined block rate model for single-family and irrigation customers.

TABLE 8-1

2019 Water Service Rates

Customer Type	Base Charge					Water Volume Charge		
	5/8" Meter	3/4" Meter	1" Meter	1.5" Meter	2" Meter	Block 1	Block 2	Block 3
Inside City Customers						0-20 m³	21-30 m³	30+ m³
Single-Family Residential	\$18.91	\$26.87	\$42.77	\$82.49	\$130.16	\$ 1.80	\$2.37	\$2.89
Senior/Disabled ⁽¹⁾	\$9.47	\$13.44	\$21.35	\$41.27	65.11	\$0.89	\$1.19	\$1.45
Multi-Family Residential	\$14.68	\$20.13	\$30.96	\$58.00	\$90.47	\$2.46		
Commercial	\$27.93	\$40.40	\$65.31	\$127.53	\$202.23	\$2.01		
Irrigation	\$4.46	\$5.15	\$6.55	\$10.06	14.24	0-85 m³	85+ m³	
						\$2.01	\$2.98	
Outside City Customers						0-20 m³	21-30 m³	30+ m³
Single-Family Residential	\$31.24	\$44.36	\$70.58	\$136.13	214.79	\$2.98	\$3.93	\$4.81
Multi-Family Residential	\$24.26	\$33.21	\$51.06	\$95.68	149.29	\$4.06		
Commercial	\$46.11	\$66.66	\$107.72	\$210.45	333.70	\$3.28		

(1) Indicates low income/senior/disability rates, determined by the US Department of Housing and Urban Development.

CONNECTION FEES

City water utilities are authorized by RCW 35.92.025 to charge connection fees based on an equitable share of existing and planned water system costs. The present City of North Bend connection fees were established by Ordinance No. 1707 effective January 1, 2020. The current City connection fees include a meter installation fee plus water system development charges based on meter size. The current connection fees schedule is illustrated in Table 8-2 below.

TABLE 8-2
2019 Connection Fees

Meter Size	ERUs⁽¹⁾	General Facility Charge⁽²⁾	Meter Installation Fee	Total
5/8" or 3/4"	1	\$7,960.00	\$2,450.00	\$10,410.00
1"	2.5	\$19,830.00	\$2,450.00	\$22,280.00
1-1/2"	5	\$39,610.00	\$3,000.00	\$39,910.00
2"	8	\$63,370.00	\$3,300.00	\$66,670.00

(1) Based on meter size.

(2) The GFC charge is automatically increased each year on January 1st by the percentage reflected in the Seattle ENR Construction Cost Index (CCI).

FINANCIAL STATUS OF EXISTING UTILITY

The City maintains separate water and sewer utilities. Table 8-3 shows historical water utility revenues and expenditures for 2013 through 2019. Expenditure and revenue totals include money from the water fund and water capital improvement fund. In each year, water utility revenues have exceeded expenditures.

TABLE 8-3
Historical Water Utility Revenues and Expenses

	2013	2014	2015	2016	2017	2018
Starting Balance	\$636,123 ⁽¹⁾	\$1,429,140	\$1,468,421	\$2,308,697	\$2,799,873	\$3,369,338
Revenue						
Water Sales	\$1,514,605	\$1,612,631	\$1,818,563	\$1,822,435	\$2,043,463	\$1,997,744
Connection Fees	\$616,286	\$183,302	\$90,145	\$205,662	\$814,020	\$1,151,599
Miscellaneous	\$756	\$2,015	\$12,316	\$2,667	\$3,479	\$80
Interest Income	\$2,032	\$3,295	\$5,523	\$11,724	\$26,168	\$51,886
Loan Proceeds	\$0	\$529,266	\$602,291	\$0	\$0	\$3,145
Grant Proceeds	\$38	\$0	\$0	\$0	\$0	\$0
Transfers	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenue	\$2,133,717	\$2,330,510	\$2,528,839	\$2,042,489	\$2,887,130	\$3,204,453
Expenditures						
Wages and Benefits	\$504,820	\$510,535	\$622,151	\$705,757	\$832,318	\$929,920
Utilities	\$73,184	\$75,364	\$69,089	\$63,212	\$171,045	\$179,213
Maintenance/Repairs	\$8,751	\$13,671	\$27,270	\$54,883	\$64,947	\$90,573
Administration	\$50,067	\$92,850	\$103,482	\$62,242	\$61,053	\$65,722
Equipment	\$150,920	\$169,066	\$162,383	\$132,560	\$150,352	\$155,182
Mitigation Water	\$57,208	\$65,881	\$64,547	\$71,867	\$90,360	\$327,672
Tax	\$74,502	\$76,160	\$81,770	\$85,851	\$105,258	\$112,286
Miscellaneous	\$15,351	\$19,977	\$12,857	\$13,816	\$85,556	\$151,602
Operation Expenditures	\$934,802	\$1,023,504	\$1,143,549	\$1,190,187	\$1,560,889	\$2,012,170
Capital Projects	\$121,373	\$978,544	\$208,373	\$94,077	\$257,869	\$2,951,648
Debt Services	\$284,525	\$289,330	\$336,641	\$250,653	\$410,972	\$247,970
Fund Transfers		\$0	\$0	\$16,395	\$87,935	\$90,932
Total Expenses	\$1,340,700	\$2,291,378	\$1,688,563	\$1,551,313	\$2,317,665	\$5,302,719
Ending Balance	\$1,429,140	\$1,468,271	\$2,308,697	\$2,799,873	\$3,369,338	\$1,271,073

(1) 2012 Ending Balance.

Over the last 7 years, revenues and operational expenditures have increased steadily. The water utility also continued to pay off debt service and invest in capital projects. At the end of 2019 the water fund had an end-of-year balance of \$1,172,761.

WATER UTILITY FINANCIAL ANALYSIS

Tables 8-3 shows the historical data upon which the future projections are based. Forecast factors used to determine the projections are shown in Table 8-4. The ERU growth rate reflects the City's anticipated population growth rate, which is detailed in Chapter 2.

TABLE 8-4

Forecast Factors

Forecast Factors	Value
Water ERU Growth Rate	2.5%
Annual Rate Increase	2021, 2024, 2027: 6.0% Other Years: 3.0% ⁽¹⁾
Cost-of-Living Adjustment	4.0%
General Inflation Rate	3.0%

(1) Per City Ordinance 1314.

FUTURE REVENUES AND EXPENDITURES

Future water utility revenues and expenditures for 2020 through 2030 are summarized in Table 8-6.

Revenues

Future revenues have been projected based on a review of the historical financial data provided by the City, in conjunction with the forecast factors given in Table 8-4. Water sales are expected to increase as a result of the ERU growth rate and annual rate increases. A typical rate increase of 3.0 percent shall occur most years; however, in 2021, 2024, and 2027 the rate increase will be 6.0 percent in order to assure adequate funding for O&M and capital expenses. All other revenues shall increase at the 3.0 percent inflation rate as shown in Table 8-4.

Expenditures

Future expenses have been projected based on a review of the historical financial data provided by the City, in conjunction with the forecast factors given in Table 8-4. Wages and benefits will increase at the 4.0 percent cost-of-living adjustment while all other expenses shall increase at the 3.0 percent general inflation rate. A new expenditure line item, Water Use Efficiency (WUE) Measures, was also added to the projected budget, as

required by the Water Loss Control Action Plan detailed in Chapter 5. This line item contains the cost for leak detection once every three years. All other WUE expenses, such as public outreach and capital projects, remain in the O&M and CIP budget line items. Finally, the Capital Improvement Program schedule, with costs adjusted for inflation, is summarized in Table 8-5 below.

TABLE 8-5
Capital Improvement Plan Project Cost Summary⁽¹⁾

Project Number	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ST-1									\$1,053,000		
ST-2										\$1,277,000	
SO-1		\$88,000									
SO-2					\$258,000						
SO-3		\$31,000									
SO-4				\$546,000							
MT-1	\$371,000										
MT-2		\$311,000									
MT-4						\$362,000					
D-1								\$102,000			
D-2											\$320,000
D-3									\$339,000		
D-5											\$1,113,000
D-6			\$216,000								
D-8											\$196,000
D-13		\$299,000									
D-18				\$483,000							
D-19							\$636,000				
D-21						\$860,000	\$885,000				
MS-1	\$35,000	\$36,000	\$37,000	\$38,000	\$39,000	\$40,000	\$41,000	\$42,000	\$43,000	\$44,000	\$45,000
MS-2			\$189,000								
MS-3						\$59,000					
AC-1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$728,085	\$0	\$772,426	\$0
Total	\$406,000	\$765,000	\$442,000	\$1,067,000	\$297,000	\$1,321,000	\$1,562,000	\$872,085	\$1,435,000	\$2,093,426	\$1,674,000

(1) Priced in project year's dollars, 3.0 percent inflation assumed.

TABLE 8-6
Projected Revenues and Expenses Summary

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Starting Balance	\$1,172,761 ⁽¹⁾	\$1,182,161	\$959,161	\$1,156,061	\$811,261	\$1,394,561	\$1,038,361	\$545,761	\$1,081,076	\$1,160,776	\$712,450
Revenue											
Water Sales (Existing Rate) ⁽²⁾	\$2,107,600	\$2,286,700	\$2,412,500	\$2,545,200	\$2,761,500	\$2,913,400	\$3,073,600	\$3,334,900	\$3,518,300	\$3,711,800	\$3,915,900
Connection Fees ⁽³⁾	\$500,000	\$515,000	\$530,500	\$546,400	\$562,800	\$579,700	\$597,100	\$615,000	\$633,500	\$652,500	\$672,100
Miscellaneous ⁽³⁾	\$3,600	\$3,700	\$3,800	\$3,900	\$4,000	\$4,100	\$4,200	\$4,300	\$4,400	\$4,500	\$4,600
Interest Income ⁽³⁾	\$26,800	\$27,600	\$28,400	\$29,300	\$30,200	\$31,100	\$32,000	\$33,000	\$34,000	\$35,000	\$36,100
Loan Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grant Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenue	\$2,638,000	\$2,833,000	\$2,975,200	\$3,124,800	\$3,358,500	\$3,528,300	\$3,706,900	\$3,987,200	\$4,190,200	\$4,403,800	\$4,628,700
Expenditures											
Wages and Benefits ⁽⁴⁾	\$967,100	\$1,005,800	\$1,046,000	\$1,087,800	\$1,131,300	\$1,176,600	\$1,223,700	\$1,272,600	\$1,323,500	\$1,376,400	\$1,431,500
Utilities ⁽³⁾	\$184,600	\$190,100	\$195,800	\$201,700	\$207,800	\$214,000	\$220,400	\$227,000	\$233,800	\$240,800	\$248,000
Maintenance/Repairs ⁽³⁾	\$93,300	\$96,100	\$99,000	\$102,000	\$105,100	\$108,300	\$111,500	\$114,800	\$118,200	\$121,700	\$125,400
Administration ⁽³⁾	\$67,700	\$69,700	\$71,800	\$74,000	\$76,200	\$78,500	\$80,900	\$83,300	\$85,800	\$88,400	\$91,100
Equipment ⁽³⁾	\$159,800	\$164,600	\$169,500	\$174,600	\$179,800	\$185,200	\$190,800	\$196,500	\$202,400	\$208,500	\$214,800
Mitigation Water ⁽³⁾	\$337,500	\$347,600	\$358,000	\$368,700	\$379,800	\$391,200	\$402,900	\$415,000	\$427,500	\$440,300	\$453,500
Tax ⁽³⁾	\$115,700	\$119,200	\$122,800	\$126,500	\$130,300	\$134,200	\$138,200	\$142,300	\$146,600	\$151,000	\$155,500
Miscellaneous ⁽³⁾	\$51,400	\$52,900	\$54,500	\$56,100	\$57,800	\$59,500	\$61,300	\$63,100	\$65,000	\$67,000	\$69,000
Water Use Efficiency Measures ⁽³⁾	\$0	\$0	\$6,500	\$0	\$0	\$7,100	\$0	\$0	\$7,800	\$0	\$0
Total Operation Expenditures	\$1,977,100	\$2,046,000	\$2,123,900	\$2,191,400	\$2,268,100	\$2,354,600	\$2,429,700	\$2,514,600	\$2,610,600	\$2,694,100	\$2,788,800
Capital Projects ⁽³⁾	\$406,000	\$765,000	\$442,000	\$1,067,000	\$297,000	\$1,321,000	\$1,562,000	\$872,085	\$1,435,000	\$2,093,426	\$1,674,000
Debt Services	\$245,500	\$245,000	\$212,400	\$211,200	\$210,100	\$208,900	\$207,800	\$65,200	\$64,900	\$64,600	\$64,300
Fund Transfers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$2,628,600	\$3,056,000	\$2,778,300	\$3,469,600	\$2,775,200	\$3,884,500	\$4,199,500	\$3,451,885	\$4,110,500	\$4,852,126	\$4,527,100
Ending Balance	\$1,182,161	\$959,161	\$1,156,061	\$811,261	\$1,394,561	\$1,038,361	\$545,761	\$1,081,076	\$1,160,776	\$712,450	\$814,050

- (1) 2019 Ending Balance.
(2) Increases at ERU growth rate and annual rate increase (see Table 8-4).
(3) Increases at general inflation rate (see Table 8-4).
(4) Increases at cost of living adjustment rate (see Table 8-4).

The City's water utility fund is projected to have adequate funding to meet all of its O&M, debt service, capital projects, and water use efficiency needs. The ending balance for each year is in surplus, culminating with an end-of-year balance of \$921,561 in 2030.

AVAILABLE CAPITAL PROJECT FUNDING SOURCES

The City would prefer to complete capital improvements with revenue collected from rates to the extent possible. However, the City has several large projects on its 20-year CIP program that may need to be funded through grants or low interest loans to be completed in a timely manner. This section describes several funding sources available to the City without reference to any specific project, including information on the following, which were considered by the City:

Loans: Public Works Trust Fund Loan
 Drinking Water State Revolving Fund
 USDA Rural Development (RD)
 Community Economic Revitalization Board

Bonds: Revenue Bonds

KING COUNTY COMMUNITY DEVELOPMENT BLOCK GRANT

King County offers community development block grants for Cities throughout the County. Utility projects are eligible if they meet at least one of the objectives of the Community Development Block Grant Program, which are to benefit low- and moderate-income persons, to aid in the prevention or elimination of slums or blight, and to meet community development needs having a particular urgency.

PUBLIC WORKS TRUST FUND

The Public Works Trust Fund (PWTF) is a revolving loan fund designed to help local governments finance needed public works projects through low-interest loans and technical assistance. The PWTF, established in 1985 by legislative action, offers loans substantially below market rates, payable over periods ranging up to 20 years.

Interest rates are 0.5 percent, 1 percent, or 2 percent, with the lower interest rates providing an incentive for a higher financial share. A minimum of 5 percent of project costs must be provided by the local community to qualify for a 2 percent loan. A 10 percent local share qualifies the applicant for a 1 percent interest rate and a 15 percent local share qualifies for a 0.5 percent loan. The useful life of the project determines the loan term, with a maximum term of 20 years.

To be eligible, an applicant must be a local government such as a city, town, county, or special purpose utility district, and have a long-term plan for financing its public work

needs. If the applicant is a city, town, or county it must adopt a 1/4-percent real estate excise tax dedicated to capital purposes. Eligible public works systems include streets and roads, bridges, storm sewers, sanitary sewers, and domestic water. Loans are presently offered only for purposes of repair, replacement, rehabilitation, reconstruction or improvement of existing service users. A recent change has now made projects intended to meet reasonable growth (as detailed in a 20-year growth management plan) eligible for PWTF funding.

An applicant can apply to the construction program for up to \$10,000,000 per biennium. Applications for the construction program are due in May of each year, with funds available approximately 1 year later. Preconstruction loans are limited to \$1,000,000 per biennium and can be submitted throughout the year. A preconstruction application must be submitted to the Public Works Board on or before the 15th of each month. The Board meets on a monthly basis and makes the award decisions at that time. Preconstruction funds are available as soon as the contracts can be issued.

DRINKING WATER STATE REVOLVING FUND

DWSRF will provide loan funding for water system projects. Health and safety projects will receive the highest rankings and receive funding. Water main projects, even those projects that improve fire flow typically do not receive a ranking high enough to receive funding.

COMMUNITY ECONOMIC REVITALIZATION BOARD (CERB)

The Community Economic Revitalization Board's prime mission is to partner with business and industry and local governments to maintain and create jobs. Established by the Legislature in 1982, CERB provides low-interest loans or, in unique circumstances, grants to help finance local public infrastructure necessary to develop or retain stable business and industrial activities. Projects eligible for funding include domestic and industrial waters systems, sanitary and storm sewers, port facilities, and telecommunications.

Typically, CERB provides loans in the amount of \$1 million and, where applicable, grants in the amount of \$300,000. The interest rate is tied to the current cost of a 10-year bond and a local match of 10 percent is required.

Eligible applicants include Washington State subdivisions in partnership with private enterprise. If there is no economic partner, a local government can produce a feasibility study that documents realistic job retention or creation. Applications must be submitted 45 days prior to a regularly scheduled CERB Meeting, which typically meets in January, March, July, and November.

REVENUE BONDS

The most common source of funds for construction of major utility improvements is the sale of revenue bonds. These are tax-free bonds are issued by a city or town. The major source of funds for debt service on revenue bonds is from monthly water or sewer service charges. In order to qualify to sell revenue bonds marketable to investors, the bonds typically have contractual provisions for the city or town to meet debt coverage requirements. The city or town must show that its annual net operating income (gross income less operation and maintenance expenses) must be equal to or greater than a factor, typically 1.2 to 1.4 times the annual debt service on all par debt. If a coverage factor has not been specified it will be determined at the time of any future bond issues.

GENERAL OBLIGATION BONDS

The City, by special election, may issue general obligation bonds to finance almost any project of general benefit to the City. The bonds are to be paid through assessments levied against all privately owned properties within the City. This includes vacant property which otherwise would not contribute to the cost of such general improvements. This type of bond issue is usually reserved for municipal improvements that are of general benefit, to the public, such as arterial streets, bridges, lighting, municipal buildings, firefighting equipment, parks, and water and wastewater facilities. General obligation bonds have the best market value and carry the lowest rate of interest of all types of bonds available to the City. Disadvantages of general obligation bonds include the following:

- Voter approval is required, which may be time-consuming, with no guarantee of successful approval of the bond.
- The City may have a practical or legal limit for the total amount of general obligation debt. Financing large capital improvements through general obligation debt reduces the ability of the utility to issue future debt.

UTILITY LOCAL IMPROVEMENT DISTRICTS

Another potential source of funds for improvements comes through the formation of Utility Local Improvement Districts (ULIDs) involving an assessment made against properties benefited by the improvements. ULID bonds are further guaranteed by the revenues and are financed by issuance of revenue bonds.

ULID financing is frequently applied to water system extensions into areas previously not served. Typically, ULIDs are formed by the City at the written request (by petition) of the property owners within a specific area of the City. Upon receipt of a sufficient number of signatures on petitions, the local improvement area is defined. Each separate property in the ULID is assessed in accordance with the special benefits the property receives from the water system improvements.

A City-wide ULID could form part of a financing package for large-scale capital projects such as water supply or storage improvements. These capital improvements typically benefit all residents in the service area. The Citywide ULID would be formed by a majority vote of the City Council.

There are several benefits to the City in selecting ULID financing. The assessment places a lien on the property and must be paid in full upon sale of the property. Further, property owners may pay the assessment immediately upon receipt, thus reducing the costs financed by the ULID. The advantages of ULID financing, as opposed to rate financing, to the property owner include:

1. The ability to avoid interest costs by early payment of assessments.
2. Low-income senior citizens may be able to defer assessment payments until the property is sold.
3. Some Community Development Block Grant funds are available to property owners with incomes near or below the poverty level. Funds are available only to reduce assessments.

The major disadvantage to the ULID process is that it may be politically difficult to approve formation. The ULID process may be stopped if owners of 40 percent of the property within the ULID boundary protest its formation.

DEVELOPER FINANCING

Developers may fund the construction of extensions to the water system to property within new plats. The developer extensions are turned over to the City for operation and maintenance when completed.

It may be necessary, in some cases, to require the developer to construct more facilities than those required by the development in order to provide either extensions beyond the plat and/or larger pipelines for the ultimate development of the water system. The City may, by policy, reimburse the Developer through either direct outlay, latecomer charges, or reimbursement agreements for the additional cost of facilities, including increased size of pipelines over those required to serve the property under development. Compensation for oversizing is usually considered when it is necessary to construct a pipe larger than eight inches in diameter in a residential area to comply with the intent of the City's comprehensive plan. Construction of any pipe in commercial or industrial areas that is larger than the size required to serve the development should also be considered as an oversized line, therefore possibly eligible for compensation. Developer reimbursement (latecomer) agreements provide up to 10 years or more for developers to receive payment for other connections made to the developer-financed improvements.

GENERAL FACILITIES CHARGES

The City has adopted General Facilities Charges to finance improvements of general benefit to the total water system which are required to meet future growth. General Facilities Charges are generally established as one-time charges assessed against new water customers as a way to recover a part of the cost of additional system capacity constructed for new customer use.

The General Facilities Charges are deposited in a construction fund to construct such facilities. The intent is that all new system customers will pay an equitable share of the cost of the system improvements needed to accommodate growth. Typical items of construction financed by the system development charge are water treatment facilities, pump stations, transmission lines, and other general improvements that benefit the entire system.

APPENDIX A

DOH WATER SYSTEM PLAN SUBMITTAL FORMS

Water System Plan Submittal Form

This form must be completed and submitted along with the Water System Plan (WSP). It will expedite review and approval of your WSP. **All water systems should contact their regional planner before developing any planning document for submittal.**

City of North Bend	60100 A	City of North Bend
1. Water System Name	PWS ID# or Owner ID#	Water Systems Owner's Name
Mark Rigos	(425) 888-7650	Public Works Director
Contact Name for Utility	Phone Number	Title
920 SE Cedar Falls Way	North Bend	Washington 98045
Contact Address	City	State Zip
Russell Porter, P.E.	206-284-0860	Professional Engineer
2. Project Engineer	Phone Number	Title
1130 Rainier Ave S #300	Seattle	Washington 98144
Project Engineer Address	City	State Zip
3. Billing Contact Name (required if not the same as #1)	Billing Phone Number	Billing Fax Number
Billing Address	City	State Zip
4. How many services are presently connected to your system?	2,745	
5. Is your system expanding (<i>circle what applies</i> : seeking to extend service area or increase number of approved connections)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
6. If the number of services is expected to increase, how many <i>new</i> connections are proposed in the next six years?	505	
7. If your system is private-for-profit, is it regulated by the State Utilities and Transportation Commission?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
8. Is the system located in a Critical Water Supply Service Area (i.e., have a Coordinated Water System Plan)?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
9. Is your system a customer of a wholesale water system?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
10. Will your system be pursuing additional water rights from the Department of Ecology in the next 20 years?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
11. Is your system proposing a new intertie?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
12. Do you have projects currently under review by us?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
13. Are you requesting distribution main project report and construction document submittal exception and if so, does the WSP contain standard construction specifications for distribution mains?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
14. The water system is responsible for sending a copy of the WSP to adjacent utilities for review or a letter notifying them that a copy of the WSP is available for their review and where the review copy is located. Has this been completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
15. The purveyor is responsible for sending a copy of the WSP to all local governments within the service area (county and city planning departments, etc.). Has this been completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
16. Are you proposing a change in the place of use of your water right?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
17. What is the last year of the plan approval period (the year the shortest WSP projection is made)?	2030	

If answer to questions 7,8, 11, 14 and/or 15 is "yes," list who you sent the WSP to: King County, Sallal Water Association, Seattle Public Utilities, City of Snoqualmie, Wilderness Rim HOA, River Bend HOA

Is this plan: ☒ an Initial Submittal ☐ a Revised Submittal

Please enclose the following number of copies of the WSP:

3 copies for Northwest and Southwest Regional Offices **OR 2** copies for Eastern Regional Office (We will send one copy to Ecology)

1 additional copy if you answered "yes" to question 7.

3 Total copies attached

Please return completed form to the Office of Drinking Water regional office checked below.

☒ **Northwest Drinking Water Operations**
Department of Health
20425 72nd Avenue South, Suite 310
Kent, WA 98032-2358
253-395-6750

☐ **Southwest Drinking Water Operations**
Department of Health
PO Box 47823
Olympia, WA 98504-7823
360-236-3030

☐ **Eastern Drinking Water Operations**
Department of Health
16201 East Indiana Avenue Suite 1500
Spokane Valley, WA 99216
509-329-2100

Water System Plan (WSP) Pre-Plan Meeting: City of North Bend May 7, 2019

<i>✓Required</i>	<i>Content Description</i>	<i>WSP Page #</i>
Chapter 1	Description of Water System	
(✓)	Ownership and management	<u>1-1,</u>
(✓)	System history and background	<u>1-1→1-3</u>
(✓)	Inventory of existing facilities	<u>1-3→1-14</u>
(✓)	Related plans: Coordinated Water System Plan (CWSP), Comp./Community	<u>1-14→1-16</u>
(✓)	Information & Maps: Service area, retail service area, designate land use and zoning, future comprehensive plan request for changes to land use, & agreements for plan approval period.	<u>Fig 1-1→Fig 1-9</u>
(✓)	Policies: Service area, SMA, conditions of service, annexation	<u>1-20→1-24</u>
(✓)	Duty to serve★ requirement: identify process, timetable, conditions, appeals	<u>1-16</u>
(✓)	Consistency from local planning★ agency	<u>Appendix D</u>
Chapter 2	Basic Planning Data	
(✓)	Current water use: Population, service connections, & ERUs	<u>2-1→2-11</u>
(✓)	Demand forecast for 10 year period and a minimum of a 20 year period* for population, service connections, & demand forecasts with & w/o expected efficiency savings.	<u>2-11→2-14</u>
(✓)	Monthly and annual production. Totals per source. Water supply Characteristics & Demand Characteristics (see Ch.4). Add subtitles with description & discussion on effect of water use	<u>2-2→2-5</u>
(?)	Annual usage for water supplied to other systems	<u>N/A</u>
(✓)	Annual usage by customer class.	
(✓)	Historical total water loss (DSL) – percent and volumes	<u>2-7→2-8</u>
(✓)	>1000, seasonal variations in consumption by customer class★	<u>2-6</u>
Chapter 3	System Analysis	
(✓)	Capacity analysis with water right self-assessment (3 forms DOH/ECY per MOU): existing, 10 year period, and 20th year projections	<u>3-17→3-18</u>
(✓)	System design standards	<u>3-1→3-5</u>
(✓)	Water quality analysis	<u>3-6→3-17</u>
(✓)	System inventory, description and analysis	<u>3-17→</u>
(✓)	Source	<u>3-17→3-20</u>
(✓)	Treatment	<u>3-21</u>
(✓)	Storage	
(✓)	Distribution system/hydraulics	<u>3-21→3-23,</u> <u>Ch 4</u>
(✓)	Summary of system deficiencies	<u>3-29→3-30</u>
(✓)	Analysis of possible improvement projects	<u>3-21,, 3-23,</u> <u>3-72, 3-29,</u> <u>3-30, 4-8 →</u> <u>4-10</u>

<input checked="" type="checkbox"/> Required	Content Description	WSP Page #
Chapter 4	Water Use Efficiency Program & Water Resource Analysis	
(✓)	Water Use Efficiency Program per WAC 246-290-810	<u>5-1→ 5-5</u>
(✓)	>1,000 Estimate water savings from measures past six years.	
(✓)	If DSL is > 10% water loss control action plan required for compliance with a schedule & activities to minimize leakage in budget	<u>5-12→5-14</u>
(?)	Source of supply analysis and evaluation of supply alternatives	_____
(?)	Interties	_____
()	≥1,000 connections explore reclaimed water opportunities★	<u>Appendix I</u>
Chapter 5	Source Water Protection (Check One or Both)	
(✓)	Wellhead protection program	<u>Appendix P</u>
()	Watershed control program	_____
Chapter 6	Operation and Maintenance Program	
(✓)	Water system management and personnel	<u>6-1</u>
(✓)	Operator certification	<u>6-1</u>
(✓)	Routine operating procedures and preventive maintenance	<u>6-8→6-13</u>
(✓)	Water quality sampling procedures & program – Identify WQ PN Requirements	<u>3-6→3-16</u>
(✓)	Coliform monitoring plan/map. Add RTCR and Ground Water Rule (GWR) narrative, actions	<u>Appendix H</u>
(✓)	Emergency program, water shortage plan, service reliability per WAC 246-290-420	<u>6-13→6-19</u>
(✓)	Address sanitary survey findings	<u>Appendix R</u>
(✓)	Cross-connection control program – Summarize next actions to address	<u>6-20 & Appendix O</u>
(✓)	Recordkeeping, reporting, and customer complaint program	<u>6-21</u>
(✓)	Summary of O&M deficiencies	<u>6-21</u>
Chapter 7	Distribution Facilities Design and Construction Standards	
(?)	Standard construction specification for distribution mains	<u>Appendix K</u>
Chapter 8	Improvement Program	
(✓)	Capital improvement schedule for 10 years and up to 20 th year	<u>7-10</u>
Chapter 9	Financial Program	
(✓)	Balanced budget for 10 year planning period and demonstrate financial viability	<u>8-7</u>
(✓)	Revenue & cash flow stability to fund capital & emergency improvements.	<u>8-7</u>
(✓)	Evaluation of affordable rate structure that encourages water demand efficiency. Budget line item if Water Loss Control Action Plan is required★	<u>8-1,8-7</u>
Chapter	Miscellaneous Documents	

	<i>✓Required</i>	<i>Content Description</i>	<i>WSP Page #</i>
10			
	(✓)	Meeting of the consumers (documentation). Approval by EGB prior to DOH Approval	<u>Appendix U</u>
	(✓)	County/Adjacent Utility Correspondence	<u>Appendix D.</u> <u>U</u>
	(✓)	≥1000 connections - State Environmental Policy Act (SEPA) Threshold	<u>Appendix T</u>
	(?)	Agreements (intertie, service area, franchise, etc.)	<u>Appendix C</u>
	(?)	Satellite Management Program	<u> </u>

APPENDIX B

WFI REPORT

WATER FACILITIES INVENTORY (WFI) FORM - Continued

Attachment A

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
60100 A	NORTH BEND, CITY OF	KING	A	Comm

	ACTIVE SERVICE CONNECTIONS	DOH USE ONLY! CALCULATED ACTIVE CONNECTIONS	DOH USE ONLY! APPROVED CONNECTIONS
25. SINGLE FAMILY RESIDENCES (How many of the following do you have?)		2144	Unspecified
A. Full Time Single Family Residences (Occupied 180 days or more per year)	1596		
B. Part Time Single Family Residences (Occupied less than 180 days per year)	0		
26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?)			
A. Apartment Buildings, condos, duplexes, barracks, dorms	91		
B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year	548		
C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year	0		
27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?)			
A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units)	4	4	
B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc.	239	239	
28. TOTAL SERVICE CONNECTIONS		2387	

29. FULL-TIME RESIDENTIAL POPULATION													
A. How many residents are served by this system 180 or more days per year? 5510													

30. PART-TIME RESIDENTIAL POPULATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many part-time residents are present each month?												
B. How many days per month are they present?												

31. TEMPORARY & TRANSIENT USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month?												
B. How many days per month is water accessible to the public?												

32. REGULAR NON-RESIDENTIAL USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. If you have schools, daycares, or businesses connected to your water system, how many students daycare children and/or employees are present each month?												
B. How many days per month are they present?												

33. ROUTINE COLIFORM SCHEDULE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
* Requirement is exception from WAC 246-290	6	6	6	6	6	6	6	6	6	6	6	6

34. NITRATE SCHEDULE	QUARTERLY	ANNUALLY	ONCE EVERY 3 YEARS
(One Sample per source by time period)			

35. Reason for Submitting WFI:
☐ Update - Change
 ☐ Update - No Change
 ☐ Inactivate
 ☐ Re-Activate
 ☐ Name Change
 ☐ New System
 ☐ Other _____

36. I certify that the information stated on this WFI form is correct to the best of my knowledge.

SIGNATURE: _____	DATE: _____
PRINT NAME: _____	TITLE: _____

Total WFI Printed: 1



Water Facilities Inventory (WFI)

Report Create Date: 1/30/2020
Water System Id(s): 60100A
Print Data on Distribution Page: ALL
Print Copies For: DOH Copy
Water System Name: ALL
County: -- Any --
Region: ALL
Group: ALL
Type: ALL
Permit Renewal Quarter: ALL
Water System Is New: ALL
Water System Status: ALL
Water Status Date From: ALL To ALL
Water System Update Date ALL To ALL
Owner Number: ALL
SMA Number: ALL
SMA Name: ALL
Active Connection Count From: ALL To: ALL
Approved Connection Count ALL To: ALL
Full-Time Population From: ALL To: ALL
Water System Expanding ALL
Source Type: ALL
Source Use: ALL
WFI Printed For: On-Demand

APPENDIX C

INTERLOCAL AGREEMENTS

EMERGENCY WATER SYSTEM INTERCONNECTION AGREEMENT

1. Date and Parties. This agreement is made and entered into this 21st day of May, 1987, by and between the City of North Bend, a Municipal Corporation, hereinafter referred to as the CITY, and the Sallal Water Association, a non-profit Washington corporation, hereinafter referred to as SALLAL.
2. General Recitation and Consideration.
- A. The City and Sallal are water purveyors in eastern King County, Washington;
 - B. The City and Sallal attempt to cooperate with each other whenever possible in order to provide the best and most cost effective water service to their respective water users;
 - C. The City and Sallal recognize the need in case of emergency for a back-up source of water;
 - D. The City and Sallal have or are contemplating the construction of water systems contiguous to one another.
 - E. The City and Sallal agree to be bound by the terms and conditions set forth below.
3. Water Resources. The City and Sallal have existing water supplies, water sources, and water rights. Each party's water resources shall remain that party's property, free and clear of any claim of the other party.
4. Water Systems. The two systems shall remain separate systems for all legal purposes. The purpose of this agreement is only to allow for an emergency interconnection and not to co-mingle the assets of the two systems. Neither party is the agent of the other; each party shall maintain at their respective expense, the water system existing within their respective boundaries. Neither party shall have any right to in any way affect the flow of water in the other's system.
5. Emergency Water. Emergency water is defined as water which either party can provide to the other on an emergency basis.
6. Emergency Definition. Emergencies are in part defined as follows:
- A. Failure of a water system pump requiring a repair period of longer than eight (8) consecutive hours; and/or,
 - B. Extreme loss of pressure occasioned by emergency requirements for such uses as fire-fighting and the like, which loss of pressure lasts for a period in excess

D. The City and Sallal will jointly provide at their common boundary an underground vault to contain the necessary equipment which includes but is not limited to a pressure reducing valve and appurtenances needed to interconnect the above described watermains. Costs for said vault and equipment will be jointly and equally shared by both parties. Said vault is at present to contain the necessary equipment required to allow water to be delivered to the City from Sallal.

E. The City and Sallal will at a date no longer than two years from the date of this agreement provide at their common boundary the necessary pumps, equipment and appurtenances needed to complete the interconnect in such a way as to allow water to be delivered to Sallal from the City. Costs for said future items will be jointly and equally shared by both parties.

F. Each party shall be allowed by the other party to review plans, specifications, engineering calculations and construction details and approve in regards to the common connection point. There shall be no charge by each party to the other for said review.

11. Easements and Right of Ways. Any required easements, right of ways or permits shall be acquired by the party requiring the same at no expense to the other party.

12. Operational Costs and Accounting. Each party shall share equally and pay all costs associated with operation and maintenance of the above described vault at the point of interconnect.

13. System Monitoring. Monitoring of water systems shall be the responsibility of each respective party for their portion of the system.

14. Public Notifications. Public notification will be made in the event of a contamination related condition, as required by State Law, by the party in which the contamination is located.

15. Compliance with Applicable State, Federal and Local Laws and Regulations.

Each party shall comply with all applicable Federal, State, County and other applicable laws, and regulations, as they relate to water purveyors of each party's respective type.

16. Legal Action. Each party, as set forth above, shall maintain its own water system. If either party shall be sued by any third persons as a result of damages alleged to have been sustained as a result of the operation or maintenance of the other party's system, then the party whose system is alleged to have caused damage shall defend the other party at no expense to said other party in said litigation.

and fidelity shall proceed to determine the question or questions submitted.

The decision of the arbitrator or arbitrators shall be rendered within thirty (30) days after their appointment, and such decision shall be in writing and in duplicate, one counterpart thereof to be delivered to each of the parties hereto. The decision of the arbitrator or arbitrators shall be complied with promptly.

The award of the arbitrator or arbitrators shall be binding, final and conclusive on the parties, and judgement on such award rendered may be entered in any court having jurisdiction thereof. Fees of the arbitrator or arbitrators and the expenses incident to proceeding shall be borne equally between the parties. Fees of the respective counsel engaged by the parties, and fees of expert witnesses or other witnesses called for the parties shall be paid by the respective party engaging such counsel or calling or engaging such witnesses. In the event that a controversy is submitted to arbitration, all obligations of the parties shall continue.

22. Legality. Should any provision of this agreement be judged invalid by a court of competent jurisdiction, the remaining provisions of this agreement shall not be affected, and the same shall remain in full force and effect.

23. Execution of Documents. Both parties agree to execute all documents necessary to effectuate the provisions contained herein.

Original from City of North Bend

WATER SERVICE CONTRACT

1. Date and Parties. This Agreement, for references purposes only, is dated the 6th day of April, 1993 and is entered into by and between the City of North Bend, herein referred to as the "City" and the Alpine Water Company, herein referred to as the "Water Company".

2. General Recitals.

A. The City is a municipal corporation authorized under the laws of the State of Washington and in that capacity, provides water to its citizens and to persons outside the City within the water service area.

B. The City currently provides water to the Alpine Water Company for the Water Company to distribute to its customers.

C. The existing between the City and the Water Company is outdated and that the parties have desired to enter into a new agreement to define their rights and responsibilities.

3. Term. The term of this Agreement shall be for one year from the date set forth in paragraph 1 above and shall automatically be renewed on an annual basis unless terminated pursuant to the provisions of paragraph 9 below.

4. Backflow Prevention Device. The Water Company, at its expense, shall acquire, install and maintain a backflow prevention device that meets or exceeds City standards. The backflow prevention device shall be installed and inspected by the City no later than May 1, 1993.

5. Water Meter. The City shall replace the existing water meter with a new water meter.

6. Rate.

A. The current rate of a flat fee of \$122.43 per month shall continue until the first of the month following the installation of the water meter referenced in paragraph 5 above. On the first day of the month following the installation of the new water meter, the Water Company shall be charged the same rate that is charged to single-metered multi-family users outside the City limits, as said rate is established by ordinance of the North Bend City Council. The current rate is \$14.25 per unit plus .69¢ per cubic meter of water used in excess of the total of 10 cubic meters times the number of units being serviced. For example, if there are six units being served through the single meter, then the current rate

following address:

City Administrator
City of North Bend
P.O. Box 896
North Bend, WA 98045

B. Any notices to be provided under this Agreement to the Water Company by the City shall be sent to the Water Company at the following address:

Alpine Water Company
13134 409th Avenue SE
North Bend, WA 98045

10. Severability. Each and every provision of this Agreement shall be deemed severable. In the event that any portion of this Agreement is determined by final order of a court of competent jurisdiction to be void or unenforceable, such determination shall not affect the validity of the remaining provisions thereof provided the intent of this Agreement can still be furthered without the invalid provision.

11. Time is of the Essence.

Time is of the essence as to each and every provision set forth herein.

12. Authorization by Council. North Bend City Council authorized the execution of this Agreement by Resolution No. 646.

CITY OF NORTH BEND

By:

Chris Lodaahl
CHRIS LODAHL, Mayor

ALPINE WATER COMPANY

By:

Marvin E. Brown
MARVIN BROWN, President

Approved as to form

By:

Loren D. Combs
LOREN D. COMBS
City Attorney

Attest:

Ken Cabrera
Ken Cabrera

ATTEST:

By:

Patti Hedges
PATTI HEDGES, City Clerk

n108634\watercon.doc

Water Service Contract
Page 3 of 3

8704010452

AGREEMENT

1. Date and Parties. This Agreement, for reference purposes only, is dated the 27 day of March, 1987, and is entered into by and between the CITY OF NORTH BEND, a Municipal Corporation, hereinafter referred to as the CITY, and the SALLAL WATER ASSOCIATION, a non-profit Washington corporation, hereinafter referred to as SALLAL.

2. General Recitations and Consideration.

A. The CITY and SALLAL are water purveyors in eastern King County, Washington;

B. The CITY and SALLAL attempt to cooperate with each other whenever possible in order to provide the best and most cost effective water service to their respective water users;

C. The CITY is the owner of a parcel of real property legally described in Exhibit A attached hereto and by reference incorporated herein, said real property being located in SALLAL'S water service area;

D. The CITY is desirous of obtaining future potable water service to said real property;

E. SALLAL is desirous of obtaining a future water storage site upon a portion of the CITY'S real property; and

F. The CITY will convey a portion of its property to SALLAL for a water tank site in consideration for the water memberships and waterline construction.

3. Conveyance of Real Property. The CITY does hereby convey to SALLAL the following described real property for the sole purpose of constructing and maintaining a water tank site, with appurtenant structures:

That portion of the Northeast quarter of the Southwest quarter of Section 18, Township 23 North, Range 9 East, W.M., King County, Washington, beginning at the intersection of the South right-of-way line of the S.E. Middle Fork Road with the East line of said Northeast quarter; Thence Southerly along said East line 260.00 feet; Thence Westerly at right angles to the preceding course a

RECEIVED THIS DAY

APR 1 3 45 PM '87

BY THE CITY OF NORTH BEND

FILED for Record at Request of

Name Krischenbaum & Corbis

Address 450 Shattuck Ave. S. St. 200
P.O. Box 14, Bellingham

8704010452

population.

A. Said Membership Certificates are exempt and shall remain exempt from any Area-Wide Fee.

B. In addition to the above Membership Certificates SALLAL does hereby agree to provide as many additional Membership Certificates as needed by the CITY or its grantees in order to serve the real property legally described in Exhibit A, regardless of whether or not said property is subdivided. Said additional memberships, however, shall be subject to all standard debt-service fees and membership fees as any other Membership Certificate and shall not be entitled to the exemption referred to in the previous subparagraph.

7. Inter-Tie. The CITY and SALLAL are actively pursuing inter-tying their two systems. Both parties shall work diligently to develop an inter-tie plan to include associated costs and responsibilities as soon as possible.

8. Arbitration. Any controversy which shall arise between the parties regarding this Agreement, shall be settled by binding arbitration. Such arbitration shall be before one (1) disinterested arbitrator if one can be agreed upon, otherwise before three (3) disinterested arbitrators, one named by the CITY, one by SALLAL, and one by the two chosen; provided, that if said two arbitrators cannot agree upon a third arbitrator within fifteen (15) days, then said third arbitrator shall be appointed by the King County Superior Court upon motion of either party. A "disinterested arbitrator" shall be a person who shall not have a direct or indirect financial interest in the decisions to be made by the board of arbitrators and who shall not be an officer, director, employee, or agent of either party. The arbitrator or arbitrators shall determine the controversy in accordance with the laws of the State of Washington as applied to the facts found by him or them, and in accordance with the rules of the Uniform Arbitration Act. The arbitrator or arbitrators

8704010452

10. Integrated Document. This Agreement contains the entire agreement between the parties respecting the subject matter herein, and there are no prior or contemporaneous agreements, oral or written, except as specifically stated.

11. Amendments. This Agreement shall not be amended unless the same is amended in writing and signed by the other parties.

12. Binding Upon Successors In Interest. This Agreement shall be binding upon the parties hereto and upon their successors in interest.

13. Execution of Documents. Both parties agree to execute all documents necessary to effectuate the provisions contained herein.

SALLAL WATER ASSOCIATION

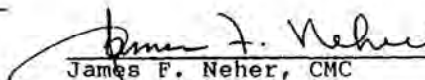
CITY OF NORTH BEND

By: 
Gerald Prior, President


Obe M. Healea, Jr., Mayor


As Authorized by Resolution
No. 87-51
Dated April 13, 1987

ATTEST:


James F. Neher, CMC
City Administrator

APPROVED AS TO FORM:

KIRSHENBAUM & COMBS

By: 
Loren D. Combs
City Attorney

As Authorized by Resolution
No. _____
Dated _____

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

On this 27 day of March, 1987, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared GERALD PRIOR, to me known to be the President of SALLAL WATER ASSOCIATION, the corporation that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he is

APPENDIX D

SIGNED CONSISTENCY STATEMENTS

Local Government Consistency Determination Form

Water System Name: City of North Bend PWS ID: 60100A

Planning/Engineering Document Title: Water System Plan Plan Date: March 2020

Local Government with Jurisdiction Conducting Review: City of North Bend

Before the Department of Health (DOH) approves a planning or engineering submittal under Section 100 or Section 110, the local government must review the documentation the municipal water supplier provides to prove the submittal is consistent with **local comprehensive plans, land use plans and development regulations** (WAC 246-290-108). Submittals under Section 105 require a local consistency determination if the municipal water supplier requests a water right place-of-use expansion. The review must address the elements identified below as they relate to water service.

By signing this form, the local government reviewer confirms the document under review is consistent with applicable local plans and regulations. If the local government reviewer identifies an inconsistency, he or she should include the citation from the applicable comprehensive plan or development regulation and explain how to resolve the inconsistency, or confirm that the inconsistency is not applicable by marking N/A. See more instructions on reverse.

Local Government Consistency Statement	For use by water system	For use by local government
	Identify the page(s) in submittal	Yes or Not Applicable
a) The water system service area is consistent with the adopted <u>land use and zoning</u> within the service area.	1-17 to 1-19 Fig 1-8,1-9	Yes
b) The <u>growth projection</u> used to forecast water demand is consistent with the adopted city or county's population growth projections. If a different growth projection is used, provide an explanation of the alternative growth projection and methodology.	1-19, 2-1, 2-12	Yes
c) For <u>cities and towns that provide water service</u> : All water service area policies of the city or town described in the plan conform to all relevant <u>utility service extension ordinances</u> .	1-20 to 1-24	Yes
d) <u>Service area policies</u> for new service connections conform to the adopted local plans and adopted development regulations of all cities and counties with jurisdiction over the service area.	1-16, 1-20 to 1-24	Yes
e) <u>Other relevant elements</u> related to water supply are addressed in the water system plan, if applicable. This may include Coordinated Water System Plans, Regional Wastewater Plans, Reclaimed Water Plans, Groundwater Management Area Plans, and the Capital Facilities Element of local comprehensive plans.	1-14 to 1-16	Yes

I certify that the above statements are true to the best of my knowledge and that these specific elements are consistent with adopted local plans and development regulations.

David E. Miller
Signature
David Miller, City Administrator, City of North Bend
Printed Name, Title, & Jurisdiction

7/13/20
Date

Consistency Review Guidance

For Use by Local Governments and Municipal Water Suppliers

This checklist may be used to meet the requirements of WAC 246-290-108. When using an alternative format, it must describe all of the elements; 1a), b), c), d), and e), when they apply.

For **water system plans (WSP)**, a consistency review is required for the service area and any additional areas where a municipal water supplier wants to expand its water right's place of use.

For **small water system management programs**, a consistency review is only required for areas where a municipal water supplier wants to expand its water right's place-of-use. If no water right place-of-use expansion is requested, a consistency review is not required.

For **engineering documents**, a consistency review is required for areas where a municipal water supplier wants to expand its water right's place-of-use (water system plan amendment is required). For noncommunity water systems, a consistency review is required when requesting a place-of-use expansion. All engineering documents must be submitted with a service area map (WAC 246-290-110(4)(b)(ii)).

- A) Documenting Consistency:** The planning or engineering document must include the following when applicable.
- a) A copy of the adopted **land use/zoning** map corresponding to the service area. The uses provided in the WSP should be consistent with the adopted land use/zoning map. Include any other portions of comprehensive plans or development regulations that relate to water supply planning.
 - b) A copy of the **growth projections** that correspond to the service area. If the local population growth projections are not used, explain in detail why the chosen projections more accurately describe the expected growth rate. Explain how it is consistent with the adopted land use.
 - c) Include water service area policies and show that they are consistent with the **utility service extension ordinances** within the city or town boundaries. *This applies to cities and towns only.*
 - d) All **service area policies** for how new water service will be provided to new customers.
 - e) **Other relevant elements** the Department of Health determines are related to water supply planning. See Local Government Consistency – Other Relevant Elements, Policy B.07, September 2009.
- B) Documenting an Inconsistency:** Please document the inconsistency, include the citation from the comprehensive plan or development regulation, and explain how to resolve the inconsistency.
- C) Documenting a Lack of Local Review for Consistency:** Where the local government with jurisdiction did not provide a consistency review, document efforts made and the amount of time provided to the local government for review. Please include: name of contact, date, and efforts made (letters, phone calls, and emails). To self-certify, please contact the DOH Planner.

The Department of Health is an equal opportunity agency. For persons with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TTY 1-800-833-6388).

APPENDIX E

WELL DOCUMENTS, WATER RIGHTS, AND MITIGATION AND PRODUCTION FIGURES

REPORT OF EXAMINATION

Date of application March 17, 1968 Date of examination March 31, 1968 Application No. 1691A
 Name Town of North Bend Address North Bend, Washington
 Quantity applied for 5.00 c.f.s. Use Municipal supply
 Source of appropriation Unnamed spring Tributary of North Fork Snoqualmie River
 Legal sub. Govt. Lot 4 Sec. 35 Twp. 26 N., 8 E. Rge. King County King
~~Estimated~~ estimated quantity 7.25 c.f.s. Probable low flow 0.75 c.f.s.
 Quantity previously appropriated: W.T. 0.75 c.f.s. CWT. 0.75 c.f.s. E.T. 0.75 c.f.s.
 Other use made of water domestic, stockwater, irrigation
 Diversion works contemplated or observed closed concrete catch basin and pump station
 Other equipment 12" transmission line
 Irrigable acreage: Planned _____ Present _____ Feasible _____
 Other water rights appurtenant to this land see below
 Progress of project not started
 Protests none
 Quantity recommended (total) 5.00 c.f.s. 136 acre-feet per year per year Dom. _____
 Power Municipal 5.00 c.f.s. 136 acre-feet Other uses _____
 Department of Fisheries and Game report see below
 Special remarks and provisions:

Diversion intake shall be tightly screened at all times with wire having a mesh opening not greater than 0.125 (1/8) inch.

A minimum of 3.00 c.f.s. shall bypass the point of diversion at all times.

Use of the waters to be appropriated under this application will be for a public water supply. State Board of Health rules require every owner of a public water supply to obtain written approval from the State Director of Health prior to any new construction or alterations of a public water supply. The applicant is advised to contact the Washington State Department of Health, Fourth Floor, Public Health Building, Olympia, with regard to the need for compliance.

An analysis of water use in Western Washington has shown the average water requirement for municipal supply to be 140 gallons per capita per day. Allowing for an increase in the water requirement, the recommended annual diversion for municipal supply under this system is based on an average daily requirement per person of 150 gallons. Therefore, for the estimated population of 2000 by 1980 to be served under this system, it is recommended the annual diversion for municipal supply be limited to 336-acre feet.

This application is approved for 5.00 c.f.s., when available, as requested.

Applicants have no recorded water rights with this office. Applicants presently receive their municipal water from Clough Creek under claim of vested rights. Therefore, permit may issue with the following provision, "issued as a supplemental supply to the claim of vested rights from Clough Creek, the total annual diversion under this application shall not exceed 336 acre-feet, less any amount diverted under existing rights."

Applicant is advised that notice of proof of appropriation of water (under which the final certificate of water right issues) should not be filed until the permanent diversion facilities have been installed together with a distribution system of main line piping capable of furnishing water for domestic supply to all lots which are intended to be supplied under this application.

As provided under RCW 43.21.130 and RCW 90.03.360, a master meter, individual service meters, or other suitable measuring devices shall be installed in this system to measure the total amount of the diversion. Records of the total monthly diversion shall be maintained by an official responsible for the management and operation of this water system, and this information shall be reported each year to the Supervisor of the Division of Water Resources. A standard form for reporting such information shall be sent annually to the manager of the system.

In accordance with section 90.03.290 R.C.W., I find that there is water available for appropriation from the source in question and that the diversion proposed in the application will not impair existing rights or be detrimental to the public welfare. Therefore, permit should issue as recommended above, subject to existing rights and indicated provisions.

Signed this 4 day of July, 1965

Dan Wood
DAN WOOD, Engineer
Division of Water Resources

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

CERTIFICATE OF WATER RIGHT

- ☒ **Surface Water** - Appointed in accordance with the provisions of Chapter 90A, RCW, and the rules and regulations of the Department of Ecology.
- ☐ **Ground Water** - Appointed in accordance with the provisions of Chapter 90A, RCW, and the rules and regulations of the Department of Ecology.

CERTIFICATE NUMBER 01-00000	PERMIT NUMBER 15502	APPLICATION NUMBER 15916	PRIORITY DATE March 27, 1969
NAME TOWN OF NORTH BEND			
ADDRESS (STREET) North Bend		CITY Washington	ZIP CODE 98042
<p><i>This is to certify that the herein named applicant has made proof to the satisfaction of the Department of Ecology of a right to the use of the public waters of the State of Washington as herein defined, and under and specifically subject to the provisions contained in the Permit issued by the Department of Ecology, and that said right to the use of said waters has been perfected in accordance with the laws of the State of Washington, and is hereby confirmed by the Department of Ecology and entered of record as shown.</i></p>			
PUBLIC WATER TO BE APPROPRIATED			
SOURCE Domestic spring			
TRIBUTARY OF THE SURFACE WATERS North Fork Snoqualmie River			
MAXIMUM CUBIC FEET PER SECOND 2.0	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE-FEET PER YEAR 234.0	
QUANTITY, TYPE OF USE, PERIOD OF USE Municipal Supply - continuously			
LOCATION OF DIVERSION/WITHDRAWAL			
APPROXIMATE LOCATION OF DIVERSION/WITHDRAWAL 430 feet North and 25 feet East from the Southwest corner of Sec. 33			
LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) Sec 33 Lot 4	SECTION 33	TOWNSHIP N. 24	RANGE, E. OR W. & M. 6 N.
		N. E. 1/4 07	COUNTY King
RECORDED PLATTED PROPERTY			
LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)	
LEGAL DESCRIPTION OF PROPERTY WATER TO BE USED ON			

Town of North Bend.

CERTIFICATE

PROVISIONS

Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including those administered by local agencies under the Shoreline Management Act of 1971.

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in RCW 90.03.380, 90.03.390, and 90.43.020.

This certificate of water right is specifically subject to relinquishment for misuse of water as provided in RCW 90.14.180.

Given under my hand and the seal of this office at Olympia, Washington, this 16th day of June, 1978.

JOHN A. BIGGS, Director
Department of Ecology

ENGINEERING DATA

OK (11/81)

by

H. Jerry Bolten, Assistant Director

FOR COUNTY USE ONLY

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PERMIT
TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

- ☐ Surface Water
(Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)
- ☒ Ground Water
(Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE June 16, 1992	APPLICATION NUMBER G1-26617(A)	PERMIT NUMBER G1-26617(A)P	CERTIFICATE NUMBER
NAME City of North Bend			
ADDRESS (STREET) P.O. Box 896		(CITY) North Bend	(STATE) Washington
			(ZIP CODE) 98045-0896
The applicant is hereby granted a permit to appropriate the following public waters of the State of Washington, subject to existing rights and to the limitations and provisions set herein.			

PUBLIC WATERS TO BE APPROPRIATED			
SOURCE Well NB-3			
TRIBUTARY OF (IF SURFACE WATERS)			
MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE 2,646	MAXIMUM ACRE FEET PER YEAR 3,094	
PURPOSE OF USE, PERIOD OF USE			

Municipal Water Supply Purposes - Year-round, as needed

Water right is subject to WAC 173-507-020 instream flow levels for the following control points unless mitigated:

- Snoqualmie River near Snoqualmie (USGS #12144500)
- Snoqualmie River near Carnation (USGS #12149000)
- Snohomish River near Monroe (USGS #12150800)

APPROXIMATE LOCATION OF DIVERSION-WITHDRAWAL				
LOCATION OF DIVERSION/WITHDRAWAL				
NB-3 - 566 feet north and 410 feet west from the south quarter corner of Section 10				
LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) SE 1/4 SW 1/4	SECTION 10	TOWNSHIP N. 23N	RANGE, (E OR W.) W.M. 8E	W.R.L.A 7
			COUNTY King	

RECORDED PLATTED PROPERTY OF (GIVE NAME OF PLAT OR ADDITION)	
LOT	BLOCK
LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED	

The place of use of this water right is the service area described in the Water System Plan approved by the Washington State Department of Health in April 2002 and the North Bend Urban Growth Area described in the King County Growth Management Planning Council's Urban Growth Area Boundary Map (June 2005). Future Water System Plan updates may have the effect of revising the place of use of this water right, so long as the City of North Bend is and remains in compliance with the criteria in RCW 90.03.386.

DESCRIPTION OF PROPOSED WORKS

Well NB-3 was completed in sand and gravel deposits between 153-203 feet below land surface using a 20-inch, stainless steel, telescopic well screen

This system is identified by the Washington State Department of Health by Public Water System ID 60100.

DEVELOPMENT SCHEDULE			
BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	WATER PUT TO FULL USE BY THIS DATE	
Started	January 1, 2054	January 1, 2059	

PROVISIONS

PROVISIONS

The following provisions are required as part of this water right approval.

Monitoring

North Bend will monitor water production, return flows from the WWTP, streamflow, and mitigation contributions using remote sensors and data loggers that will be connected to the mitigation and production sources. North Bend will be responsible for monitoring and data collection on a daily basis regardless of whether Well NB-3 was pumped or if instream flows were met. Monitoring must occur on a daily basis because mitigation water, when needed, will be discharged on a daily basis, and the mitigation requirement is based on aggregated impacts from the previous 20 days. The daily (24-hour) time period begins at the onset of each work day (approximately 8:00 AM). The City will input monitoring data into a database at the beginning of each day, and the database will calculate the mitigation requirement for the day.

The City will also collect data on a weekly basis to confirm various daily measurements and obtain supplemental information for their own analyses. The North Bend Operation and Monitoring Plan (Golder, 2007e) describes all of the City's monitoring activities in detail. The remainder of this section describes the monitoring activities required as part of this Report of Examination.

Water Production

Well NB-3 will be monitored with a totalizer meter and daily production volume will be recorded. Pump run times or instantaneous flow from the well will also be recorded electronically by the telemetry system. The telemetry system will monitor a transducer to record water levels during pumping and non-pumping conditions. The following daily data will be transmitted to the Public Works Department telemetrically each morning: volume pumped; hours pumped or average pumping rate; maximum and minimum ground water level.

WWTP Flow Monitoring

Flow from the WWTP to the South Fork Snoqualmie River is measured by a flow meter on the outfall pipe. This flow meter (totalizer) is read daily in the mornings with flows measured to the nearest 10,000 gallons. The readings will be recorded manually and transmitted to the Public Works Department in the morning of each day by e-mail or other reliable means.

Streamflow Monitoring

Monitoring streamflow at the three instream flow control points (USGS gages 12144500, 12149000 and 12150800) is required to perform the mitigation algorithm. The minimum measurement during the previous 24 hours will be compared to the minimum instream flow requirement for that day at each site to determine if the instream flow requirement was met. The City telemetry system will access the three gages to obtain the real-time streamflow data. If the telemetry system malfunctions, then the City staff would download the data available online. The USGS gage data that will be used is provisional and subject to revision. However, it is the best available source of data at that time and will be used to determine mitigation triggers. Mitigation will not be subject to revised data.

The mitigation plan requires that flows are monitored at three instream flow control points downstream of North Bend. Specifically, the USGS currently monitors flow at Carnation, Monroe, and Snoqualmie Falls. If the USGS were ever to discontinue monitoring at all of these three gauges, the City would be responsible for monitoring flow at the nearest control point (Snoqualmie Falls) in a manner similar to the USGS protocol.

Hobo Springs Monitoring

Water levels behind the existing weir will continue to be monitored using a pressure transducer to determine flow rates over the weir. The water level at the weir will be translated into a flow rate using a weir equation developed from previous analyses of Hobo Springs data. The transducer will take measurements at a preset time increment of 60 minutes and the data will be transmitted via telemetry. The telemetry system will be used to record average, minimum and maximum daily flow.

Mitigation Water Monitoring

The City will monitor the flow through the outfall pipe into Boxley Creek using a totalizer that will be read at least weekly. In addition, the instantaneous flow through the mitigation transmission pipeline at Hobo Springs and the intertie with Sallal will be monitored via telemetry. Daily mitigation volumes will be calculated by summing the instantaneous flow data. The amount of time per day that mitigation water is delivered will be tracked for each source. Field inspections will be completed at least monthly to identify potential maintenance issues.

Mitigation

Mitigation shall be performed in accordance with the procedures outlined in the Mitigation Operations and Monitoring Plan (Golder, 2007e) and the provisions outlined in this Permit.

To the extent practical, the City must attempt to deliver mitigation flows uniformly over the course of the "mitigation day". This may not be possible when the mitigation requirement is less than the minimum daily delivery capacity of either mitigation source. However, when

either of the mitigation sources can be controlled in such a manner to provide uniform delivery of mitigation water over the mitigation day, this approach shall be employed. The City shall monitor and report the timing of mitigation deliveries to show compliance with this provision.

Reporting

Reporting will be required to summarize the monitoring data, evaluate the performance of the mitigation system, and assess the capacity of the mitigation system relative to current and future demand. Various reports will be generated, including initial system reports, annual system reports, and event reports. In addition, reporting includes periodic update of the Mitigation Operation and Monitoring Plan as new information becomes available, new approaches to managing the mitigation system developed, and/or new water-supply or mitigation sources are placed on line.

Initial System Reports

Quarterly reports will be generated for the first two years of operation. Quarterly reports will coincide with the quarter-periods of the calendar year, and the first quarterly report will be issued only after at least six weeks of data collection (otherwise data will be reported in the next quarter). Reporting will be on an annual basis after the first two years. Reports will be sent to Ecology, the Tulalip Tribes, the Snoqualmie Tribe, and made available to other interested parties upon request.

Initial system reports will contain summary information about the mitigation operations on a daily and annual basis. The summary information will include a table detailing daily and year-to-date cumulative values of: 1) water produced from Well NB-3; 2) assumed WWTP return flow; 3) the net stream depletion (i.e. mitigation requirement) of the volume of water produced from Well NB-3; 4) the number of days that mitigation water was required; 5) the volume of mitigation delivered from each mitigation source; 6) the timing (hours per day) of mitigation water delivered from each mitigation source; 7) the difference between the volume of mitigation required and the volume delivered; and 8) total Hobo Springs flow captured by the collection box. In addition, the report should discuss any planned improvements to mitigation sources, additional evaluation of mitigation capacity as Qi (instantaneous quantity) and Qa (annual quantity) limitations approach, the status of the availability of the mitigation sources, and any update to the mitigation algorithm (as approved by Ecology).

Initial system reports will also be generated quarterly during the first two years operation of any new water supply or mitigation source. These reports will be sent within 30 days of the end of the quarter.

Annual System Report

Annual reports will contain summary information about the mitigation operations on a daily and annual basis. The annual reports will contain the same information as the initial system reports; however, they will present all the data collected over a complete calendar year of operation. The annual system report will replace the initial system report that occurs on the fourth quarter of the calendar year. These reports will be sent to Ecology, the Tulalip Tribes, and the Snoqualmie Tribe within 30 days of the end of the year. Annual System Reports will be made available to other interested parties by Ecology upon request.

Event Reports

Event reports will be generated when the City misses a mitigation day, supplies insufficient mitigation volume, or has a water system failure. If the City misses a mitigation day or supplies insufficient mitigation volume, then the City will add that volume of water to the total mitigation volume required for the next day. A water system failure is any problem that compromises the ability to compute the mitigation algorithm. If the total volume of water produced in the preceding 24 hours is unknown (i.e., the totalizer number is unknown), then the City would mitigate using the highest level of pumping in the last three days. A report explaining the details of the event, the actions taken to ensure that mitigation was implemented, and how the City can prevent this problem in the future will be sent to Ecology, the Tulalip Tribes, and the Snoqualmie Tribe within 30 days of the event. Event reports will be made available to other interested parties by Ecology upon request.

Mitigation Operations and Monitoring Plan Update

The mitigation operations plan will be updated after the first two years of operation. All of the water monitoring and operations data from the mitigation supply system will be used to update the mitigation operations plan. The update may include revision of the streamflow depletion functions used by the mitigation algorithm if additional aquifer testing revises existing values of aquifer properties (see Special Provisions below). The update may also include revised assumptions regarding the fraction of annual pumpage returned to the Snoqualmie River as WWTP return flow (f_{wtp}), as described in Section 2.4.2 of the Report of Examination).

After the initial 2-year update, the mitigation operations plan will be updated once every six years to coincide with other water system plan updates. Optimization of the mitigation system will occur as more data are collected during operation, especially during the first 5 years.

Adaptive Management Amendments

Adaptive management includes adding production sources NB-1 and NB-2 to this water right, adding the Tolt pipeline as a mitigation source, and modifying elements of the mitigation approach (These include updating aquifer properties at NB-3 to be used in the IGARF model of streamflow depletion and updating the wastewater treatment plant return flow function).

For each adaptive management amendment, North Bend shall submit the required documents to Ecology, the Tulalip Tribes, the Snoqualmie Tribe, and other interested parties who have requested notification. Ecology shall review the reports along with any comments received, and determine whether or not the proposed amendment meets the conditions of this Permit.

If Ecology determines that the proposed amendment does not comply with the conditions of this Permit, it shall give notice in writing to North Bend, with a copy to interested parties, of the factors causing the non-compliance and allow North Bend to resubmit the documents with the appropriate corrections.

Ecology's determination regarding any adaptive management amendments to this water right shall be in the form of an order to North Bend and shall be delivered with a notice to the Tulalip Tribes, Snoqualmie Tribe, and all other parties of interest (who have requested notification) of the right to appeal the order to the Pollution Control Hearings Board as prescribed by chapters 34.05 and 43.21B RCW.

After the appeal period of the order has passed, Ecology will issue an amended permit containing the new information.

Adding Production Sources

This permit authorizes use of Well NB-3 for municipal water supply purposes. However, the city ultimately wishes to add production sources NB-1 and NB-2. This section details the process needed to include NB-1 and NB-2 as approved points of withdrawal.

The City's future municipal production wells can generally be placed into one of two groups:

- (1) Withdrawals far from the river(s) that will result in multiple days of surface water depletion; and
- (2) Withdrawals close to the river(s) that will cause effectively instantaneous surface water depletion.

Well NB-1 falls in the first category, as does Well NB-3. Well NB-2 most likely falls in the second category. Well NB-1 is already constructed but requires additional testing, and Well NB-2 has not yet been constructed. To add either Well NB-1 or NB-2 as an approved source of supply under water right G1-26617(A), the following process must be followed:

North Bend must request a preliminary permit from Ecology before any future drilling or testing of NB-1 or NB-2. This is to insure that all parties agree with what should be tested and monitored.

It is anticipated that North Bend will be required to submit two reports to Ecology, the Tulalip Tribes, and the Snoqualmie Tribe: a "New Source Report" and an update to the Mitigation Operations and Monitoring Plan. The New Source Report must include the following:

- Description of well drilling and well construction (for NB-2 only);
- Description of well testing, estimated well yield, and estimated aquifer properties, aquifer boundaries, and additional characterization of local streambed conductivity;
- Analysis of potential for impairment of nearby wells,
- Estimation of the schedule of maximum daily stream depletion resulting from new source withdrawal; and,
- Description of how this new source will be operated along with other sources authorized by this permit such that the overall quantities allocated by this permit are not exceeded.

The updated Operations and Monitoring Plan must include an updated system description, monitoring requirements, mitigation operations and algorithm, other operational considerations and reporting requirements.

Ecology will process the request for additional source wells (NB-1 and NB-2) consistent with the requirements of RCW 90.44 in effect at the time the sources are requested to be added.

Adding Mitigation Sources

This permit authorizes the use of Hobo Springs and the Sallal wells for sources of mitigation. However, the city may ultimately seek to add the Tolt pipeline source to its mitigation options. To add the Tolt pipeline as an approved source of mitigation under water right G1-26617(A), the following process must be followed:

North Bend must submit two reports to Ecology, the Tulalip Tribes, and the Snoqualmie Tribe: a "New Mitigation Source Report" and an update to the Mitigation Operations and Monitoring Plan. The New Mitigation Source Report must include description of the following:

- Design, construction and SEPA permitting of the Tolt pipeline mitigation source;
- The location of discharge to the Snoqualmie River system;
- The transmitting capacity of the Tolt mitigation pipeline; and,
- Travel times between the control valve and the point of discharge.

The updated Operations and Monitoring Plan must include an updated system description, monitoring requirements, mitigation operations and algorithm, other operational considerations and reporting requirements.

Modifying the Mitigation Algorithm

In addition to regular updates of the Mitigation Operations and Monitoring Plan (see Reporting Provision), the City may desire to update the plan based on new information or development of more optimized mitigation routines. In this instance, the City shall submit a draft version of the modified Mitigation Operations and Monitoring Plan to Ecology, the Tulalip Tribes, the Snoqualmie Tribe, and interested parties who have requested notification. Ecology shall review the updated Operations and Monitoring Plan, along with any comments received and determine whether or not the new updated plan meets the conditions of this Permit.

Special Provisions

Mitigation Contracts

Once the final contracts for supply of mitigation water from the City of Seattle and the Sallal Water Association have been approved, copies of those contracts must be submitted to Ecology.

Future NB-3 Aquifer Test

The City will conduct a 72-hour constant rate pump test within the first two years of setting Well NB-3 into operation and implementing the mitigation system. During the pump test, Well NB-3 will be pumped at the maximum safe capacity that can be received by the water system and all of the pumped water will be discharged to a closed water system or outside the radius of influence of the well. The pump test data will be analyzed to update estimated transmissivity and storativity and will be reported to Ecology, the Tulalip Tribes, and the Snoqualmie Tribe. Future testing will use a similar monitoring system to previous Well NB-3 testing authorized under the preliminary permit issued on September 16, 2004. Results will be used to update transmissivity and storativity, reported to Ecology, the Tulalip Tribes, and the Snoqualmie Tribe, and if necessary used to update the mitigation algorithm and mitigation functions.

Conservation Planning Requirements

The water right holder must comply with the water use efficiency requirements as defined in Washington Department of Health WAC 246-290 for this size Group A public water system.

Health

The water appropriated under this application will be used for public water supply. The State Board of Health rules require public water supply owners to obtain written approval from the Department of Health's Office of Drinking Water Supply, prior to any new construction or alterations of a public water supply system.

The benefits and requirements of this water right authorization shall be reflected in future water system plan updates.

Hydraulic Project Approval

Contact the Washington Department of Fish and Wildlife to obtain hydraulic project approval for construction of the discharge point in Boxley Creek.

Tribal Rights

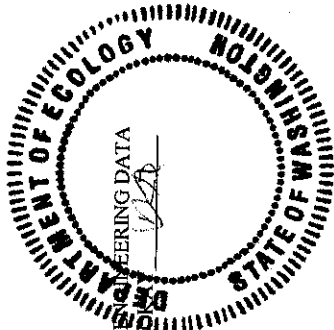
This authorization to make use of public waters of the state is subject to existing tribal rights, including any existing rights held by the United States for the benefit of Indian tribes under treaty, reservation, or settlement.

Certificate

The applicant is advised that notice of Proof of Appropriation of water (under which the final certificate of water right is issued) should not be filed until the permanent distribution system has been constructed and that quantity of water allocated by the permit to the extent water is required, has been put to full beneficial use.

This permit shall be subject to cancellation should the permittee fail to comply with the above development schedule and/or fail to give notice to the Department of Ecology on forms provided by that Department documenting such compliance.

Given under my hand and the seal of this office at Bellevue, Washington, this 10th day of April, 2008.



Department of Ecology

By Buck Smith
Buck Smith, Interim Section Supervisor, Water Resources

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Attachment A

CERTIFICATE OF WATER RIGHT

- ☒ **Surface Water** - I desire to exercise my right to the public waters of the State of Washington as herein defined, and under and specifically subject to the provisions contained in the Permit issued by the Department of Ecology, and that said right to the use of said waters has been perfected in accordance with the laws of the State of Washington, and is hereby confirmed by the Department of Ecology and entered of record as shown.
- ☐ **Ground Water** - I desire to exercise my right to the public waters of the State of Washington as herein defined, and under and specifically subject to the provisions contained in the Permit issued by the Department of Ecology, and that said right to the use of said waters has been perfected in accordance with the laws of the State of Washington, and is hereby confirmed by the Department of Ecology and entered of record as shown.

CERTIFICATE NUMBER 81-000000	PERMIT NUMBER 15902	APPLICATION NUMBER 15914	PRIORITY DATE March 17, 1943
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NAME TOWN OF NORTH END	CITY North End	STATE Washington	ZIP CODE 98043
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This is to certify that the herein named applicant has made proof to the satisfaction of the Department of Ecology of a right to the use of the public waters of the State of Washington as herein defined, and under and specifically subject to the provisions contained in the Permit issued by the Department of Ecology, and that said right to the use of said waters has been perfected in accordance with the laws of the State of Washington, and is hereby confirmed by the Department of Ecology and entered of record as shown.

PUBLIC WATER TO BE APPROPRIATED		
SOURCE Dammed spring		
TRIBUTARY OF (IF SURFACE WATERS) North Fork Snoqualmie River		
MAXIMUM CUBIC FEET PER SECOND 2.0	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE-Feet PER YEAR 224.0
QUANTITY, TYPE OF USE, PERIOD OF USE Municipal Supply - continuously		

LOCATION OF DIVERSION/WITHDRAWAL
APPROXIMATE LOCATION OF DIVERSION/WITHDRAWAL 650 feet North and 25 feet East from the Southwest corner of Sec. 33

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) Sec. 4 Lot 4	SECTION 25	TOWNSHIP N. 24	RANGE, T. OR W. & R. 8 N.	W.B.L.A. 07	COUNTY King
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RECORDED PLATTED PROPERTY		
LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)

LEGAL DESCRIPTION OF PROPERTY WATER TO BE USED ON Town of North End.
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CERTIFICATE

REPORT OF EXAMINATION

Date of application March 17, 1965 Date of examination March 31, 1965 Application No. 18914
 Name Town of North Bend Address North Bend, Washington
 Quantity applied for 3.00 c.f.s. Use Municipal supply
 Source of appropriation Unnamed spring Tributary of North Fk. Snoqualmie River
 Legal sub. Govt. Lot 4 Sec. 35 Twp. 24 N. Rge. 8 E. County King
~~Manufactured~~ estimated quantity 7.25 c.f.s. Probable low flow
 Quantity previously appropriated: W.T. 0.75 c.f.s. CWT. 0.75 c.f.s. E.T. 0.75 c.f.s.
 Other use made of water domestic, stockwater, irrigation
 Diversion works contemplated or observed closed concrete catch basin and pump station
 Other equipment 12" transmission line
 Irrigable acreage: Planned _____ Present _____ Feasible _____
 Other water rights appurtenant to this land see below
 Progress of project not started
 Protests none
 Quantity recommended (total) 5.00 c.f.s. Irrig. 336 acre-feet per year Dom. _____
 Power Municipal 5.00 c.f.s. 336 acre-feet Other uses _____
 Department of Fisheries and Game report see below

Special remarks and provisions:

Diversion intake shall be tightly screened at all times with wire having a mesh opening not greater than 0.125 (1/8) inch.
 A minimum of 3.00 c.f.s. shall bypass the point of diversion at all times.

Use of the waters to be appropriated under this application will be for a public water supply. State Board of Health rules require every owner of a public water supply to obtain written approval from the State Director of Health prior to any new construction or alterations of a public water supply. The applicant is advised to contact the Washington State Department of Health, Fourth Floor, Public Health Building, Olympia, with regard to the need for compliance.

over

CASCADE GOLF COURSE
14319 436TH AVE SE
NORTH BEND, WA 98045



20181101001051

CERTIFICATE Rec: \$103.00
11/1/2018 4:10 PM
KING COUNTY, WA

DOCUMENT TITLE: SUPERSEDING CERTIFICATE

REFERENCE NUMBER:

GRANTOR

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
ECOLOGY NORTHWEST REGIONAL OFFICE (ECY
NWRO)
3190 - 160TH AVE SE
BELLEVUE, WASHINGTON 98008-5452
(425) 649-7000

GRANTEE

CASCADE GOLF COURSE
14319 436TH AVE SE
NORTH BEND, WA 98045

LEGAL DESCRIPTION

Source Name	Parcel	Township	Range	Sec	QQ Q
WELL	1523089124	23N	8E	15	SE SE

AUTHORIZED PLACE OF USE

That portion of the S ½ of the S ½ of Section 15, Township 23N, Range 8E, W. M. lying south of I-90 and northeasterly of the South Fork of the Snoqualmie River, and that portion of the N ½ of Section 22, Township 23N Range 8E, W. M. lying northeasterly of the South Fork of the Snoqualmie River.

PARCELS: 1523089124, 1523089019, 1523089133, 1523089170, 1523089194, 1523089132, 1523089039, 1523089147

ADDITIONAL LEGAL IS ON PAGE 2 OF ATTACHED DOCUMENT

File NR CG1-00142C
WR Doc ID 2271913

State of Washington
Department of Ecology
**SUPERSEDING CERTIFICATE OF WATER
RIGHT CG1-00142C**



This is to certify that the herein named applicant has made proof to the satisfaction of the Department of Ecology of a right to the use of the public waters of the State of Washington as herein defined, and under and specifically subject to the provisions contained in the Permit issued by the Department of Ecology, and that said right to the use of said waters has been perfected in accordance with the laws of the State of Washington, and is hereby confirmed by the Department of Ecology and entered of record as shown, but is limited to an amount actually beneficially used.

This certificate supersedes Water Right Certificate G1-00142C issued on 8/28/1972 and is subject to the following provisions.

PRIORITY DATE
May 1, 1997

APPLICATION NUMBER
5571

PERMIT NUMBER
5282

CERTIFICATE NUMBER
CG1-00142C

MAILING ADDRESS
CASCADE GOLF COURSE
14319 436TH AVE SE
NORTH BEND, WA 98045

SITE ADDRESS (IF DIFFERENT)

Legal Description Continues on Page 2

Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL RATE	UNITS	ANNUAL QUANTITY (AF/YR)
120	GPM	33

Purpose

PURPOSE	WITHDRAWAL RATE		UNITS	ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE		ADDITIVE	NON-ADDITIVE	
Golf course irrigation	120		GPM	33		01/01 - 12/31
IRRIGATED ACRES						
ADDITIVE	NON-ADDITIVE					
34						

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
King	Groundwater	South Fork Snoqualmie River	7

SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Well	1523089124		23N	8E	15	SE SE	47.4707	-122.7595

Datum: NAD83 HARN Washington State Plane South

Place of Use

PARCELS (NOT LISTED FOR SERVICE AREAS)

1523089124, 1523089019, 1523089133, 1523089170, 1523089194, 1523089132, 1523089039, 1523089147

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

That portion of the S ½ of the S ½ of Section 15, Township 23N, Range 8E, W. M. lying south of I-90 and northeasterly of the South Fork of the Snoqualmie River, and that portion of the N ½ of Section 22, Township 23N, Range 8E, W. M. lying northeasterly of the South Fork of the Snoqualmie River.

Measurement of Water Use

How often must water use be measured?	Daily During Irrigation Season, Weekly During Winter
How often must water use data be reported to Ecology?	By January 31 each year
What volume should be reported?	Total Annual Volume
What rate should be reported?	Total Instantaneous Rate (gpm)

Provisions

Monthly Water Allocation

Monthly water allocations for the Cascade Golf well are listed below:

January – 2.4 acre-feet	May – 3.4 acre-feet	September – 3 acre-feet
February – 2.0 acre-feet	June – 2.8 acre-feet	October – 2.7 acre-feet
March – 2.4 acre-feet	July – 4.5 acre-feet	November – 2 acre-feet
April – 2.2 acre-feet	August – 3.6 acre-feet	December – 2.2 acre-feet

The applicant can exceed these allocations under the following circumstances. On days when instream flows in the Snoqualmie River as measured at the Snoqualmie Falls gage (USGS 12144500) are being met per chapter 173-507 WAC, Cascade Golf can pump as much as needed without that day's amount counting toward the monthly allowance. The instantaneous quantity of 120 gpm, and the annual amount of 33 acre-feet cannot be exceeded. Attachment 1, included with the Report of Examination and entitled "Method for Recording Data", provides a table for recording water production along with detailed instructions.

If it can be shown that the requested change has a detrimental effect on existing rights, it shall be the responsibility of the operator to mitigate for this impact and/or alter or cease withdrawal of water.

Measurements, Monitoring, Metering and Reporting

An approved measuring device shall be installed and maintained for each withdrawal of the source identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", Chapter 173-173 WAC.

Water use data shall be recorded as specified in Attachment 1- Method for Recording Data. The maximum annual instantaneous rate of withdrawal and the annual total volume shall be submitted to Ecology by January 31 of the following year.

The following information shall be included with each submittal of water use data: owner, contact name if different, mailing address, daytime phone number, Certificate number, source name, volume including units, Department of Health WFI water system number and source number (for public drinking water systems), and well tag number (for groundwater withdrawals). In the future, Ecology may require additional parameters to be reported or more frequent reporting. Ecology prefers web based data entry, but does accept hard copies. Ecology will provide forms and electronic data entry information.

Chapter 173-173 WAC describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modification to some of the requirements. Installation, operation and maintenance requirements are enclosed as a document entitled "Water Measurement Device Installation and Operation Requirements".

Schedule and Inspections

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

Given under my hand and the seal of this office at Bellevue, Washington, this 24 day of October, 2018.



Maia Bellon, Director
Department of Ecology

DATA REVIEW
OK mc

A handwritten signature in blue ink, appearing to read "Ria Berns", is written over a horizontal line.

Ria Berns, Section Manager
Northwest Regional Office
Water Resources Program

To request ADA accommodation including materials in a format for the visually impaired, call Ecology Water Resources Program at 360-407-6872. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341

Water Right Self-Assessment Form for Water System Plan

Mouse-over any link for more information. Click on any link for more detailed instructions.

Water Right Permit, Certificate, or Claim # *If water right is interruptible, identify limitation in yellow section below	WFI Source # If a source has multiple water rights, list each water right on separate line	Existing Water Rights Qi= Instantaneous Flow Rate Allowed (GPM or CFS) Qa= Annual Volume Allowed (Acre-Feet/Year) This includes wholesale water sold				Current Source Production – Most Recent Calendar Year Qi = Max Instantaneous Flow Rate Withdrawn (GPM or CFS) Qa = Annual Volume Withdrawn (Acre-Feet/Year) This includes wholesale water sold				10-Year Forecasted Source Production (determined from WSP) This includes wholesale water sold				20-Year Forecasted Source Production (determined from WSP) This includes wholesale water sold			
		Primary Qi Maximum Rate Allowed	Non-Additive Qi Maximum Rate Allowed	Primary Qa Maximum Volume Allowed	Non-Additive Qa Maximum Volume Allowed	Total Qi Maximum Instantaneous Flow Rate Withdrawn	Current Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume Withdrawn	Current Excess or (Deficiency) Qa	Total Qi Maximum Instantaneous Flow Rate in 10 Years	10-Year Forecasted Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume in 10 Years	10-Year Forecasted Excess or (Deficiency) Qa	Total Qi Maximum Instantaneous Flow Rate in 20 Years	20-Year Forecasted Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume in 20 Years	20-Year Forecasted Excess or (Deficiency) Qa
1. S1-00620C *	S01	2,250 gpm		336 acre-feet/year		2,200 gpm	50 gpm	200 acre-feet/year	136 acre-feet/year	2,200 gpm	50 gpm	200 acre-feet/year	136 acre-feet/year	2,200 gpm	50 gpm	200 acre-feet/year	136 acre-feet/year
2. G1-26617(A)P **	S03	2,646 gpm		3,094 acre-feet/year		2,500 gpm	146 gpm	584 acre-feet/year	2,510acre-feet/year	2,500 gpm	146 gpm	903 acre-feet/year	2,191 acre-feet/year	2,500 gpm	146 gpm	1284 acre-feet/year	1,810 acre-feet/year
3.																	
4																	
5																	
6																	
	TOTALS =	4,896 gpm		3,430 acre-feet/year		4,700 gpm	196 gpm	784 acre-feet/year	acre-feet/year	4,700 gpm	196 gpm	1,103 acre-feet/year	2,327 acre-feet/year	4,700 gpm	196 gpm	1,484 acre-feet/year	1,946 acre-feet/year

A

B

C

=A-C

D

=B-D

E

= A-E

F

=B-F

G

=A-G

H

=B-H

*S1-00620C is subject to a 3.0 cubic-feet-per-second (CFS) bypass flow at the diversion, to be maintained at all times, as described in the ROE.

**G1-26617(A)P is subject to WAC 173-507 and may only be used when mitigated, as described in the ROE and permit.

Column Identifiers for Calculations:

PENDING WATER RIGHT APPLICATIONS: Identify any water right applications that have been submitted to Ecology.						
Application Number	New or Change Application?	Date Submitted	Quantities Requested			
			Primary Qi	Non-Additive Qi	Primary Qa	Non-Additive Qa
G1-26617(B)	New	6/16/92	1,614			
S1-28050	New	8/11/99	2,250			

[INTERTIES:](#) Systems receiving wholesale water complete this section. Wholesaling systems must include water sold through intertie in the current and forecasted source production columns above.

Name of Wholesaling System Providing Water	Quantities Allowed In Contract		Expiration Date of Contract	Currently Purchased Current quantity purchased through intertie				10-Year Forecasted Purchase Forecasted quantity purchased through intertie				20-Year Forecasted Purchase Forecasted quantity purchased through intertie			
	Maximum Qi Instantaneous Flow Rate	Maximum Qa Annual Volume		Maximum Qi Instantaneous Flow Rate	Current Excess or (Deficiency) Qi	Maximum Qa Annual Volume	Current Excess or (Deficiency) Qa	Maximum Qi 10-Year Forecast	Future Excess or (Deficiency) Qi	Maximum Qa 10-Year Forecast	Future Excess or (Deficiency) Qa	Maximum Qi 20-Year Forecast	Future Excess or (Deficiency) Qi	Maximum Qa 20-Year Forecast	Future Excess or (Deficiency) Qa
1															
2															
3															
TOTALS =															

Column Identifiers for Calculations:

A

B

C

=A-C

D

=B-D

E

=A-E

F

=B-F

G

=A-G

H

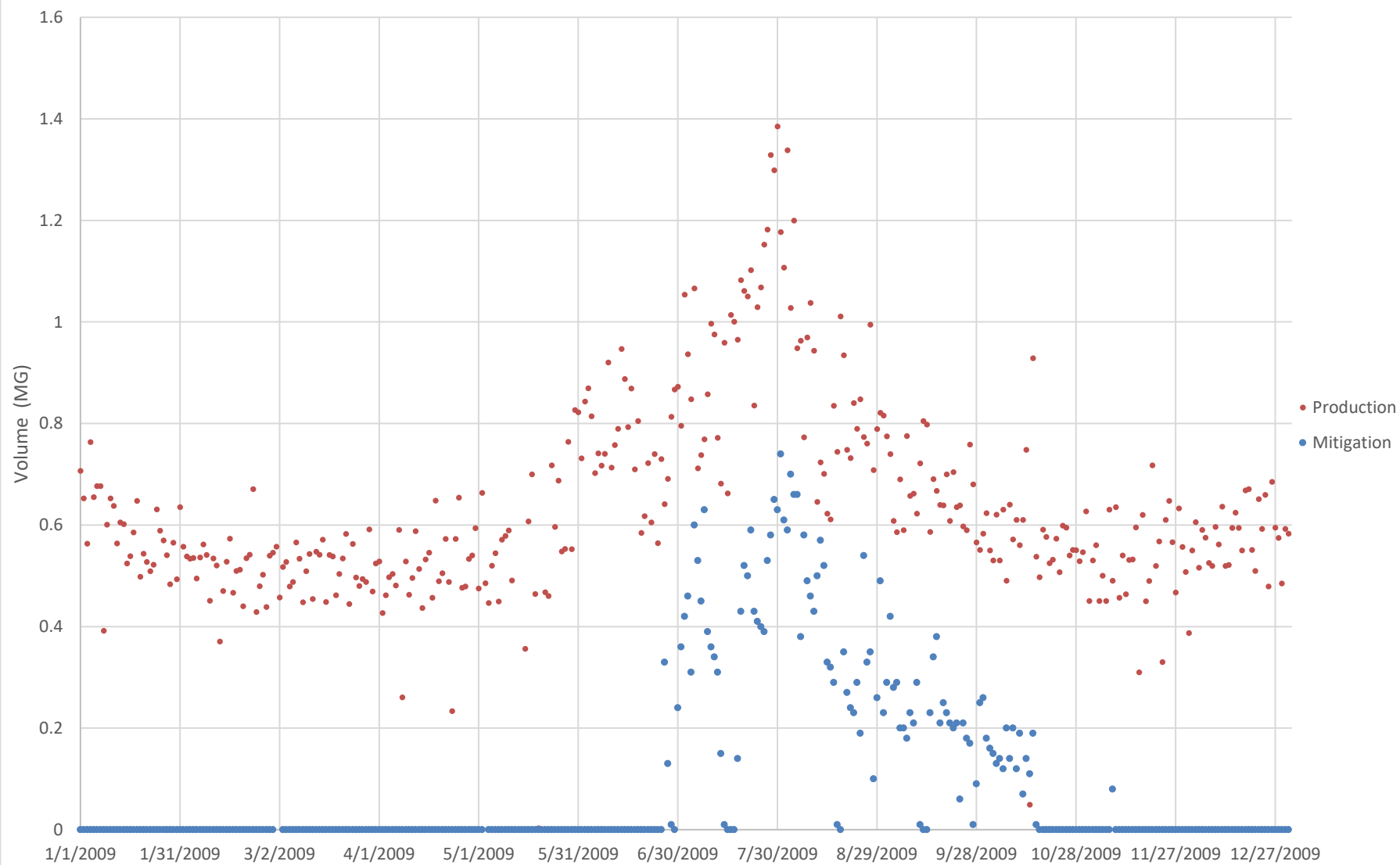
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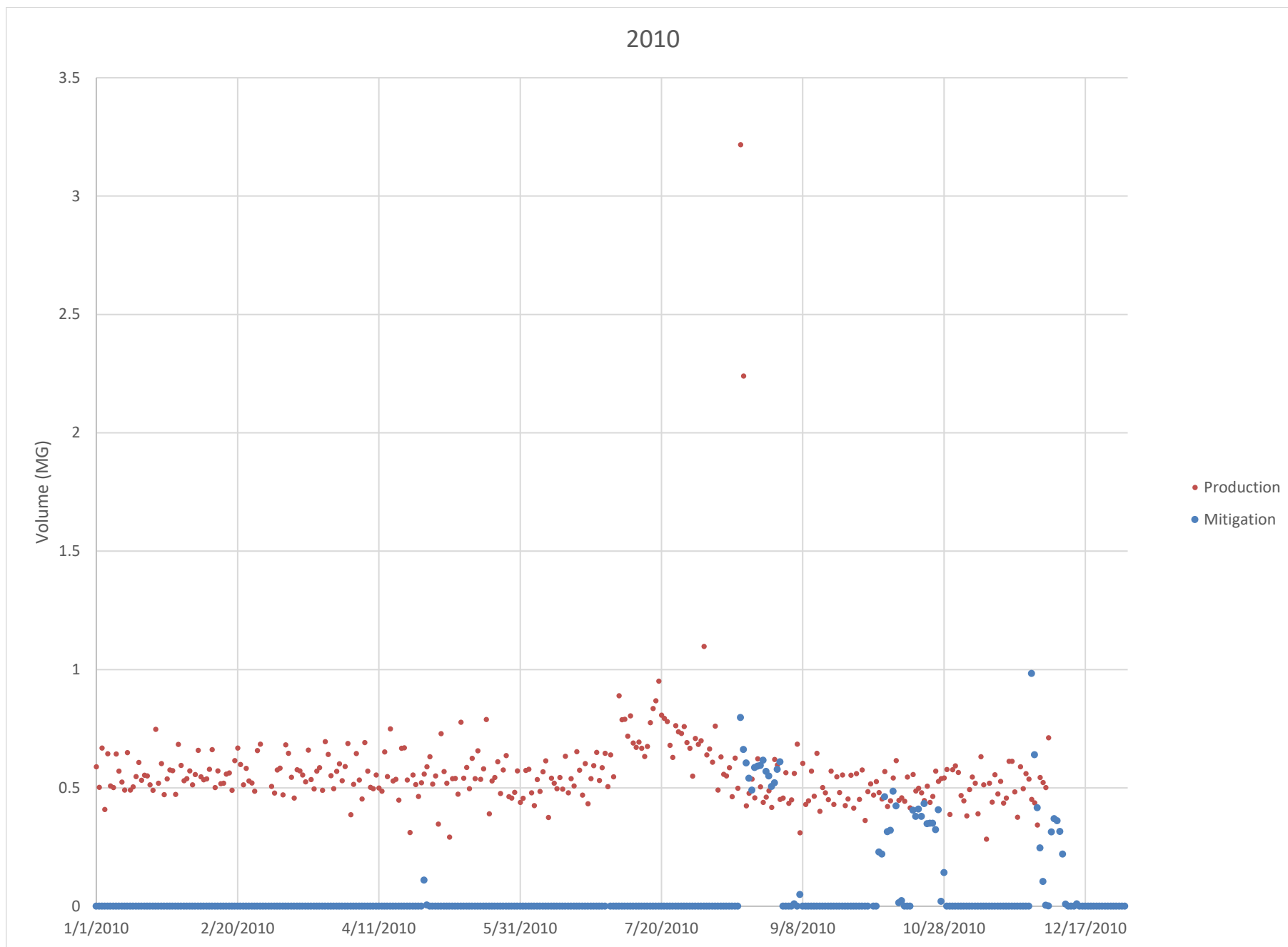
INTERRUPTIBLE WATER RIGHTS: Identify limitations on any water rights listed above that are interruptible.

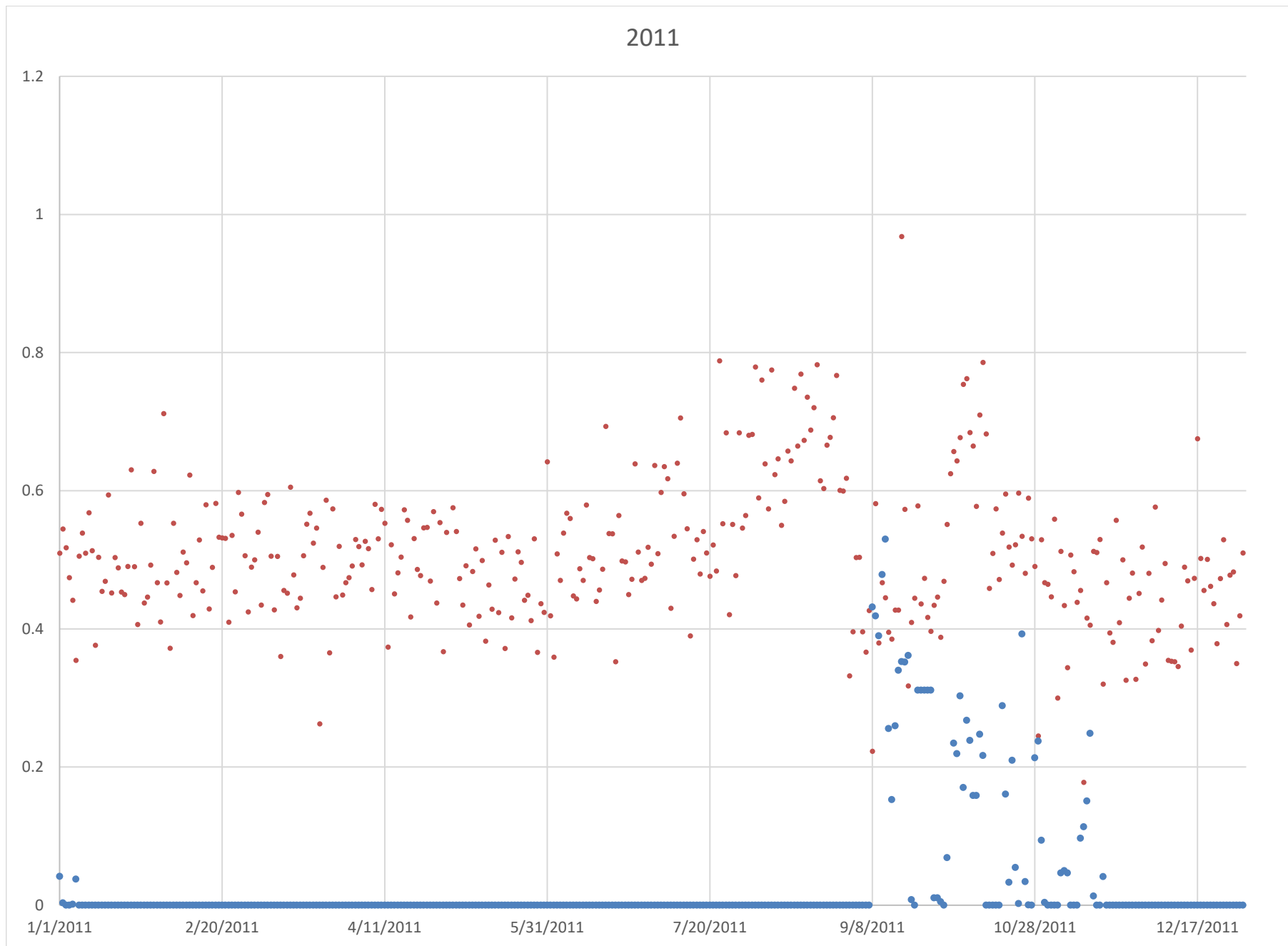
Water Right #	Conditions of Interruption	Time Period of Interruption
1		
2		
3		

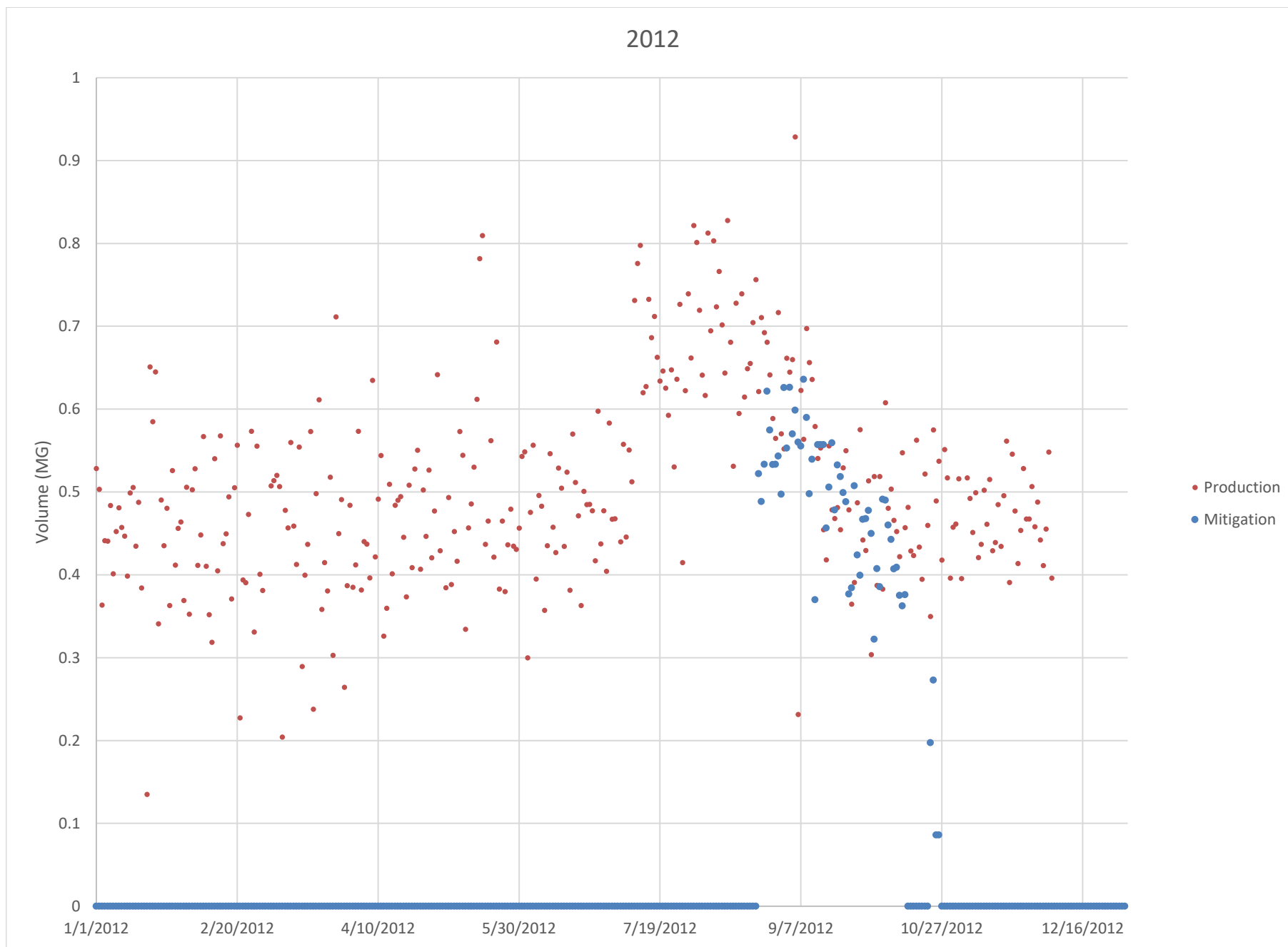
ADDITIONAL COMMENTS:

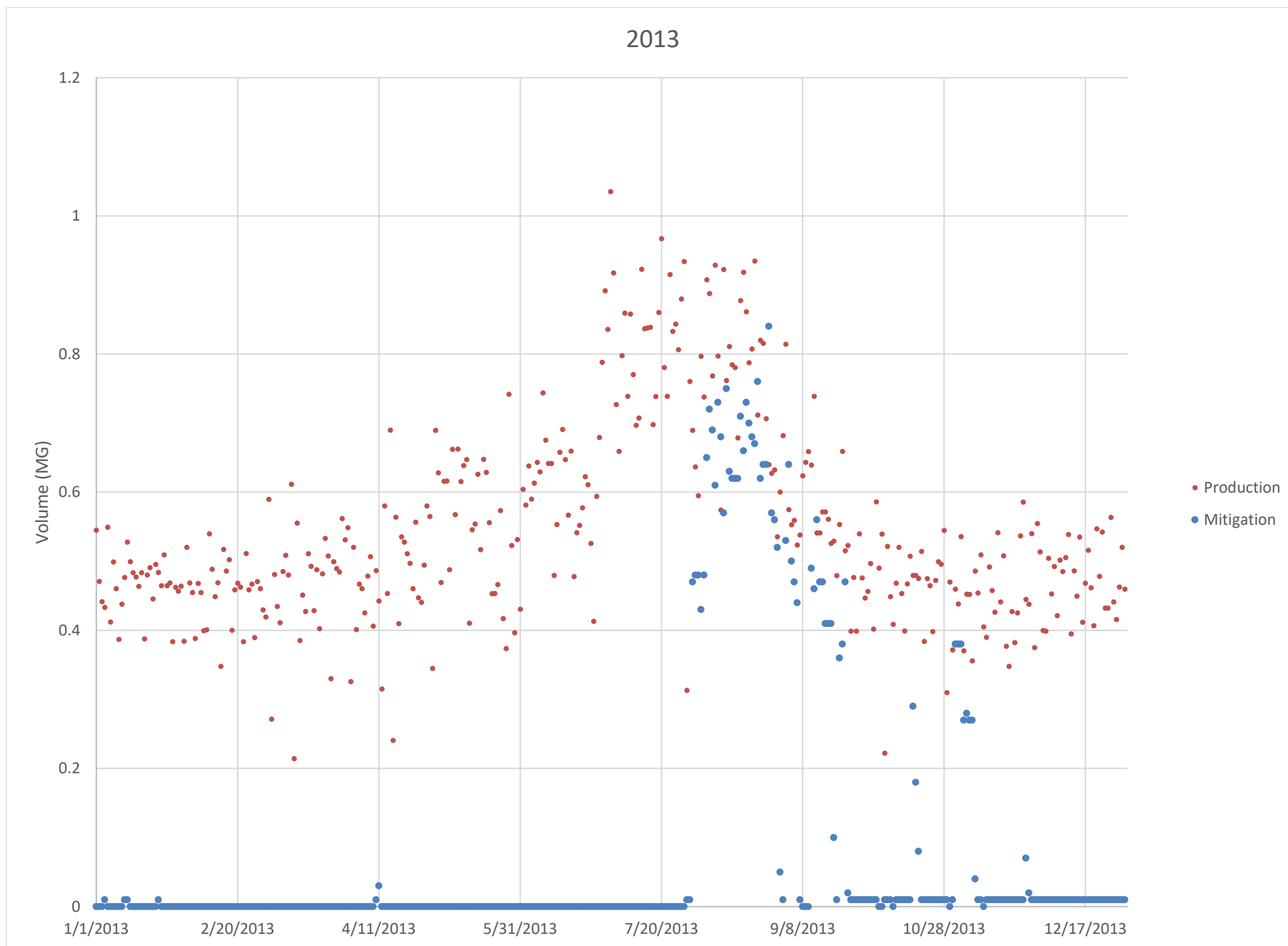
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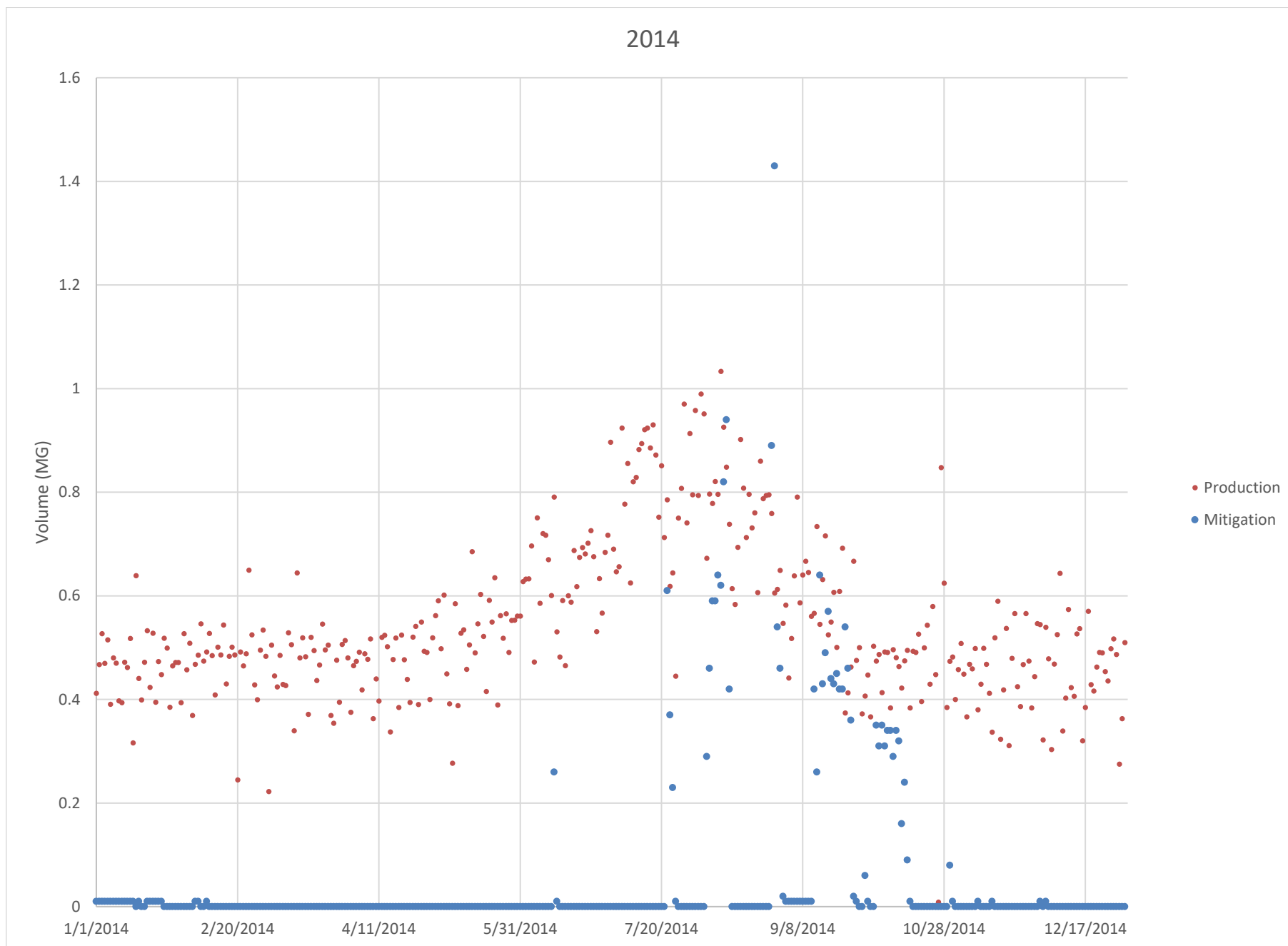


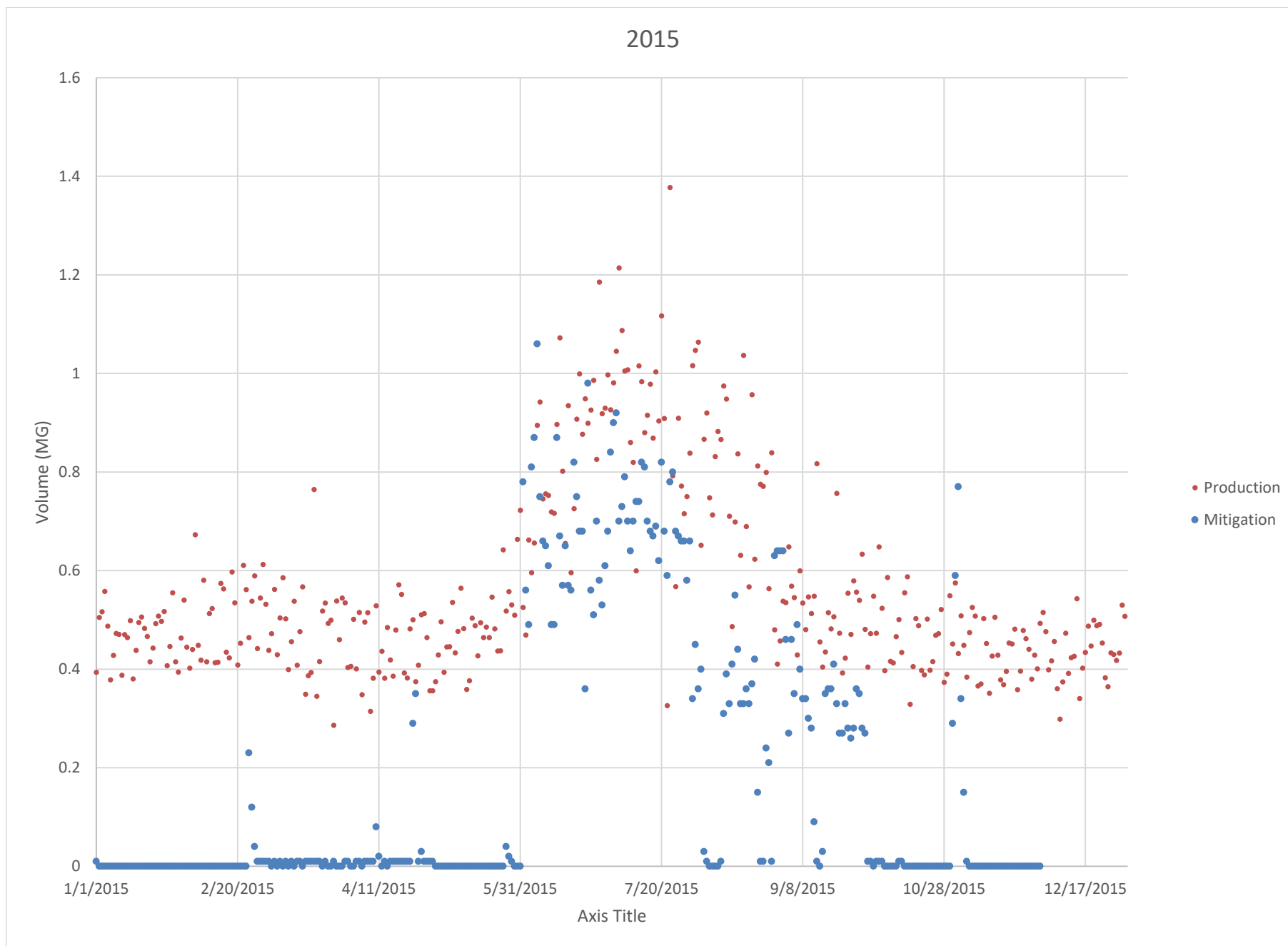


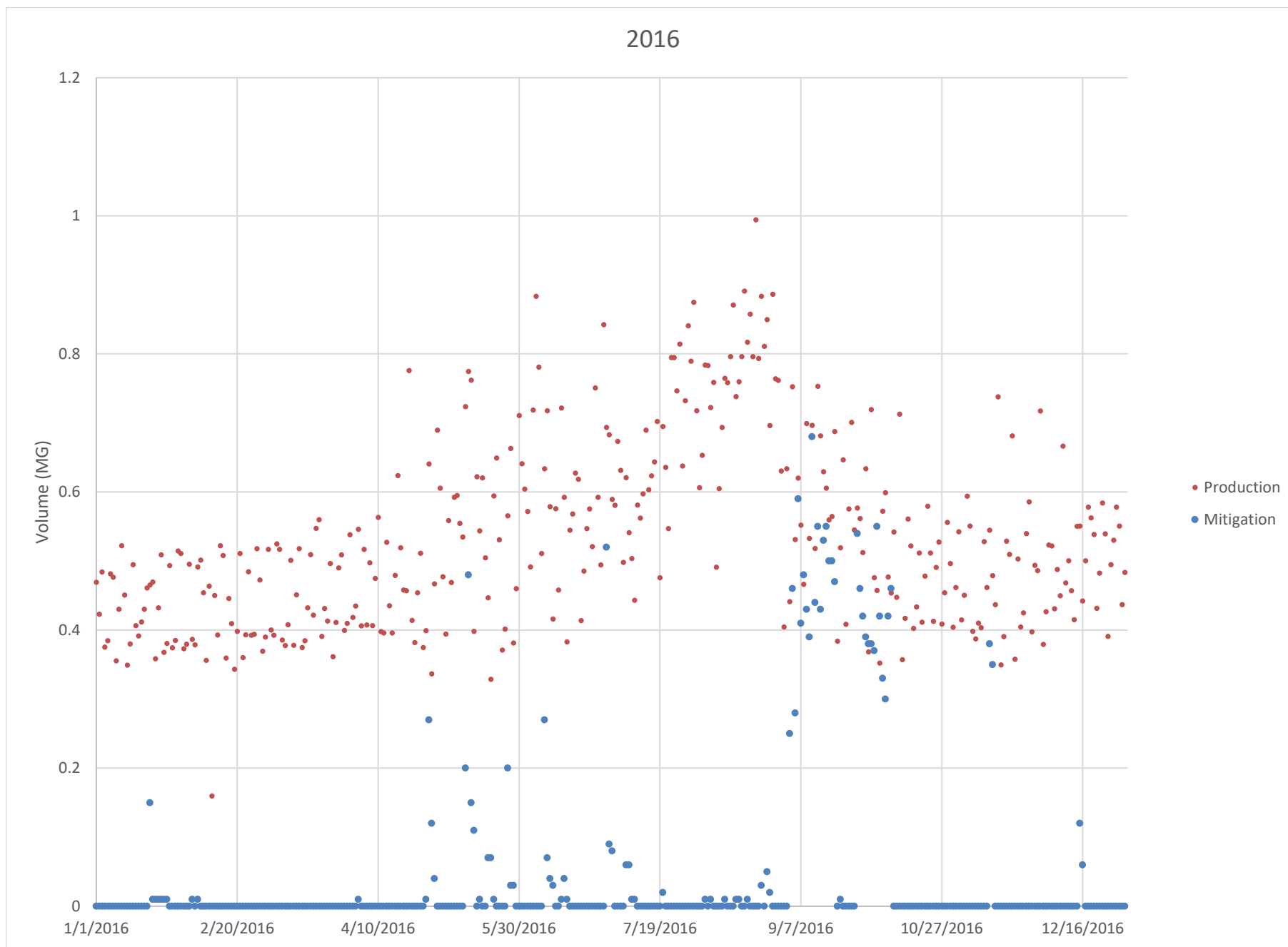


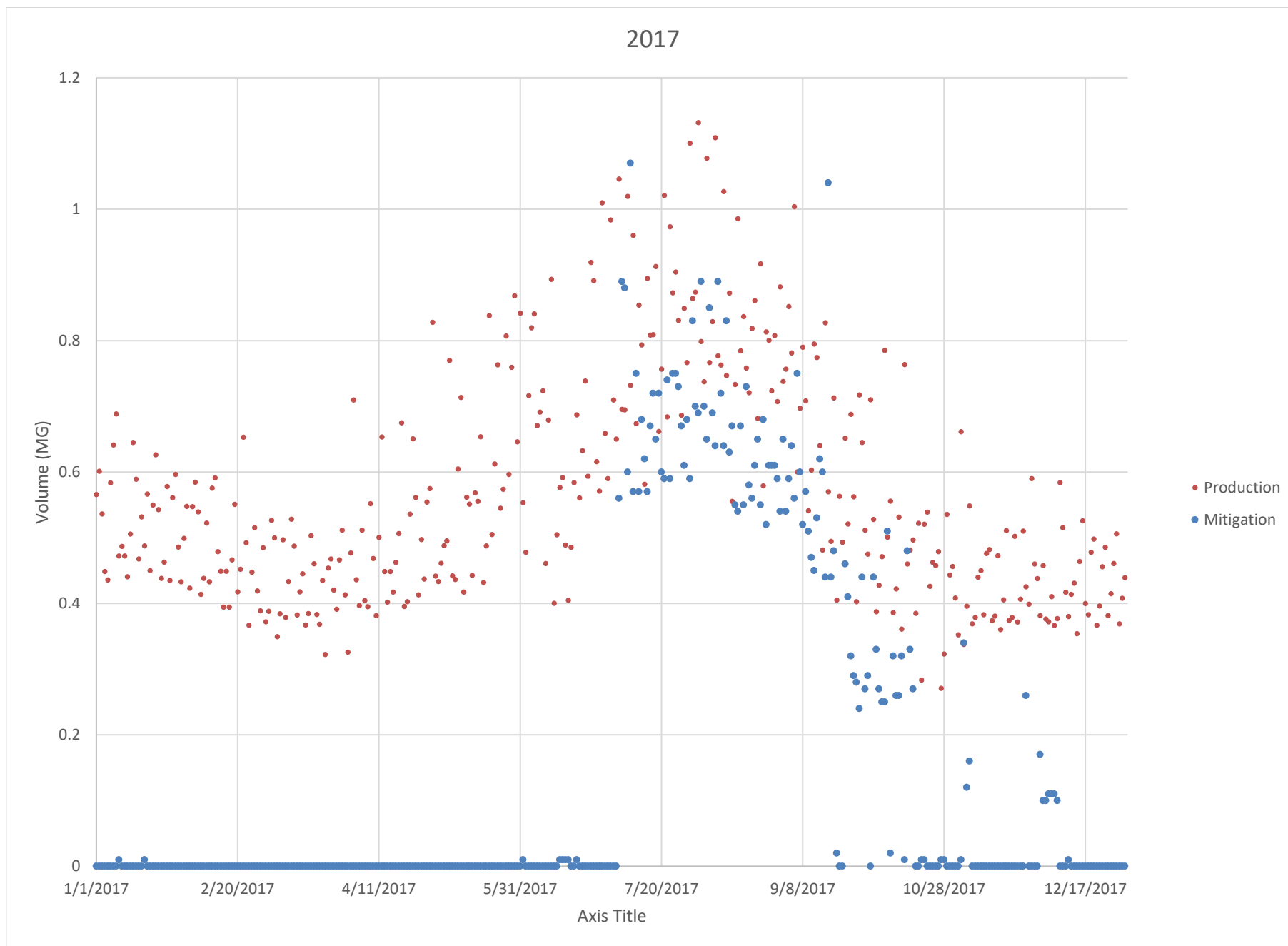












Vol in MG	2009				2010			
	Total	Max Month	Max Month Vol	Peak Month ADD	Total	Max Month	Max Month Vol	Peak Month ADD
Production Water	229.62	July	30.56	0.99	213.46	July	23.85	0.77
Mitigation Water	33.36	July	12.92	0.42	19.57	July	8.81	0.28

Vol in MG	2011				2012			
	Total	Max Month	Max Month Vol	Peak Month ADD	Total	Max Month	Max Month Vol	Peak Month ADD
Production Water	185.29	July	20.69	0.67	192.04	July	23.34	0.75
Mitigation Water	10.81	July	5.98	0.19	26.81	July	15.46	0.50

Vol in MG	2013				2014			
	Total	Max Month	Max Month Vol	Peak Month ADD	Total	Max Month	Max Month Vol	Peak Month ADD
Production Water	199.23	July	24.80	0.80	198.98	July	24.53	0.79
Mitigation Water	31.01	July	19.11	0.62	20.55	July	8.69	0.28

Vol in MG	2015				2016			
	Total	Max Month	Max Month Vol	Peak Month ADD	Total	Max Month	Max Month Vol	Peak Month ADD
Production Water	205.23	July	28.18	0.91	195.18	July	23.73	0.77
Mitigation Water	67.89	July	21.76	0.70	17.80	July	10.14	0.33

Vol in MG	2017				2018			
	Total	Max Month	Max Month Vol	Peak Month ADD	Total	Max Month	Max Month Vol	Peak Month ADD
Production Water	207.44	July	25.48	0.82	197.70	July	24.12	0.78
Mitigation Water	59.15	July	20.34	0.66	42.79	July	15.77	0.51

APPENDIX F

**GOLDER ASSOCIATES WATER
DEMAND PROJECTIONS**



DRAFT TECHNICAL MEMORANDUM

DATE December 30, 2019

Project No. 13-00218-14

TO Don DeBerg
City of North Bend

CC Mark Rigos, Tom Mohr

FROM Alyssa Seal, Nicole DeNovio

EMAIL ndenovio@golder.com

CITY OF NORTH BEND WATER DEMAND FORECAST

The City of North Bend (City) has provided Golder Associates Inc. (Golder) with the production, consumption, and mitigation data from 2009 to mid-2018 for the Water and Mitigation Demand Assessment. Golder developed a tool to forecast water system demands, mitigation requirements, and the degree of confidence in the capability of the mitigation sources of meeting the mitigation requirements over the build-out period (through 2054) within the constraints of the water rights (Golder 2019a). The tool was developed using the GoldSim simulation software platform, version 12.1.2. The tool was used to generate a water demand forecast for Grey & Osborne (G&O) to support the ongoing water system plan update. This draft technical memorandum documents the assumptions that are used to develop the water demand forecasts, lists the inputs that G&O and the City selected to define the demand forecast for use in the water system plan, and presents the results of the water demand forecast for that scenario.

1.0 NORTH BEND WATER DEMAND FORECAST INPUTS

The City supplies water to customers within its water service area (WSA). The current WSA includes part of the City and part of the urban growth area (UGA). The remainder of the City and UGA area are served by adjacent Group A water systems: the Sallal Water Association (Sallal) and the Riverbend Homesites Association. Each water purveyor has its own water rights, water sources, and distribution systems. However, there is the potential for the City to sell water wholesale to Sallal to supply water to its customers located within the City and UGA boundary. In addition to the City's customer water demands, the distribution system leakage increases the water demands for the system; therefore, the future total water system demand for the City WSA is the sum of the customer demands, water system leakage, and wholesale water supplied to Sallal.

The water consumption for the City and UGA within Sallal is assumed to change over time as parcels are developed and additional parcels are connected to the water system. The Sallal wholesale demands for the UGA within its WSA are limited to the parcels within the City and UGA boundaries and the losses from Sallal's distribution system leakage (DSL). The forecast period used in Golder (2019a) goes through 2054 to match the 50-year growth period used in the 2004 water demand analysis. However, the forecast period can be changed to evaluate different timeframes.

Water demands are dependent on land use, so water demand categories are used to generalize the historic water use into major categories that could be applied to the zoning categories, thereby providing a general indication of the expected water demand for future development. The water demand categories for North Bend include:

- Commercial
- Employment Park
- Agricultural Irrigation
- Multi-Family Residential
- Multi-Family Residential and Commercial
- None
- Parks, Open Space or Public Facility
- Single-Family Residential

Golder 2019b summarizes the parcel and water consumption data provided by the City. The parcel dataset includes columns with the King County present use classification, the City zoning designation (if applicable) and the King County zoning designation (if applicable) (Reynolds 2018a). The City also provided a cross-reference table of the parcels within each water service area (Reynolds 2018b). A water demand category was assigned to each present use classification identified by King County (Table 1). Table 2 identifies the water demand category assumed for each zoning district and the maximum number of dwelling units within each zoning district. The parcel water demands are aggregated by water demand category.

The following options influence the water system demand projections:

- Geographic extent of the parcels included in the demand forecast
- Parcel development schedule and constraints
- Water conservation
- Distribution system leakage

Table 3 identifies the options and inputs used to define the demand forecast for the water system plan (Scenario A). Table 4 presents a summary of the inputs used in the draft Golder (2019a) analysis. Attachment A includes the Executive Summary from the Golder (2019a) draft report. Additional details about the scenarios used in the draft Golder (2019a) analysis can be found therein.

2.0 NORTH BEND WATER DEMAND FORECAST RESULTS

The inputs identified for the water system plan scenario (Scenario A) are described in Table 3. The tool was run using a Monte Carlo analysis for 1,500 realizations. Table 5 presents the mean annual water demand from 2020 through 2050 by water demand category for the City's WSA and Sallal's wholesale water demand. These water demands include the assumed DSL of 22.4% for the City WSA water demands and 0% DSL for the Sallal wholesale water demands in the total water demands. The mean results can be added to estimate the total water demands. The estimated annual mean water demands for the City WSA increase from approximately 252 million

gallons per year (MGal/year) in 2020 to 690 MGal/year in 2050. The estimated annual mean wholesale water demands from Sallal increase from 87 MGal/year in 2021 to 146 MGal/year in 2050. The estimated annual mean water demands for the City WSA and Sallal wholesale water increase from approximately 252 MGal/year in 2020 to 836 MGal/year in 2050.

Golder Associates Inc.**DRAFT**Alyssa Seal
Senior Planner

AS/ND/ks

DRAFTNicole M. DeNovio, PhD, LHG
Principal

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Tables

Table 1: Parcel Present Land Use and Assigned Water Demand Category

Table 2: Parcel Zoning and Assigned Water Demand Category

Table 3: Water Demand Forecasting Scenario Inputs

Table 4: Water Demand Forecasting Scenarios Included in the Draft Water and Mitigation Forecast Report (Golder 2019a)

Table 5: City Water Service Area and Wholesale Water to Sallal Water Demand Forecast, Scenario A, 2020 to 2050

Attachment

Attachment A: Executive Summary from Draft City of North Bend Water Supply and Mitigation Forecast (Golder 2019a)

3.0 REFERENCES

Golder Associates Inc. (Golder). 2019a. Draft City of North Bend Water Supply and Mitigation Forecast. October 2019.

Golder Associates Inc. (Golder). 2019b. City of North Bend Water Production, Consumption and Mitigation Data 2009 – 2018. October 2019.

Reynolds, Jesse. 2018a. Personal Communication. Email to Nicole DeNovio and Alyssa Seal cc David Miller regarding Water Supply/Demand Data priorities. May 31.

Reynolds, Jesse. 2018b. Personal Communication. Email to Londi Lindell, Jennifer Bourlin cc Dawn Masko, Beth Wright, and Nicole DeNovio regarding Scope and Budget - Demand analysis and Planning tool. July 12.

Tables

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Table 1: Parcel Present Land Use and Assigned Water Demand Category¹

Parcel Present Land Use	Water Demand Category ¹
Unknown	None
Single family (residential use / zone)	Single-Family Residential
Duplex	Single-Family Residential
Triplex	Multi-Family Residential
4-plex	Multi-Family Residential
Single family (C/I Zone)	Single-Family Residential
Houseboat	Not Applicable
Mobile home	Single-Family Residential
Single family (C/I use)	Single-Family Residential
Apartment	Multi-Family Residential
Apartment (Mixed use)	Not Applicable
Apartment (Co-op)	Not Applicable
Apartment (Subsidized)	Multi-Family Residential
Condominium (Residential)	Multi-Family Residential
Condominium (Mixed use)	Not Applicable
Townhouse plat	Not Applicable
Mobile home park	Multi-Family Residential
Condominium (Mobile Home Park)	Not Applicable
Retirement facility	Commercial
Hotel or motel	Commercial
Rehabilitation center	Not Applicable
Residence Hall or Dorm	Not Applicable
Group home	Not Applicable
Resort / Lodge / Retreat	Not Applicable
Nursing home	Commercial
Shopping Center (Neighborhood)	Commercial
Shopping Center (Community)	Not Applicable
Shopping Center (Regional)	Not Applicable
Shopping Center (Major retail)	Not Applicable
Shopping Center (Specialty)	Commercial
Retail (Line / Strip)	Commercial
Retail store	Commercial
Retail (Big box)	Not Applicable
Retail (Discount)	Not Applicable
Office building	Employment Park
Office Park	Not Applicable
Medical or Dental office	Commercial
Condominium (Office)	Not Applicable
Farm	Not Applicable
Greenhouse / Nursery / Horticulture service	Agricultural Irrigation
Mining / Quarry / Ore processing	Not Applicable
Bowling Alley	Not Applicable
Campground	Not Applicable
Driving Range	Not Applicable
Golf Course	Not Applicable
Health Club	Commercial
Marina	Not Applicable
Movie Theatre	Commercial
Park, Public (Zoo \ Arboretum)	Parks / Open Space or Public Facilities
Park, Private (Amusement Center)	Not Applicable

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Table 1: Parcel Present Land Use and Assigned Water Demand Category¹

Parcel Present Land Use	Water Demand Category ¹
Ski Area	Not Applicable
Skating Rink (Ice / Roller)	Not Applicable
Sport Facility	Commercial
Governmental Service, Art Gallery/Museum/Soc Srvc	Parks / Open Space or Public Facilities
Parking(Assoc)	Commercial
Auditorium / Assembly Building	Not Applicable
Auto Showroom and Lot	Commercial
Bank	Commercial
Car Wash	Commercial
Church / Welfare / Religious Services	Commercial
Club	Commercial
Convenience Store without Gas	Not Applicable
Convenience Store with Gas	Commercial
Restaurant (Fast Food)	Commercial
Governmental Service	Parks / Open Space or Public Facilities
Hospital	Not Applicable
Mortuary / Cemetery / Crematory	Parks / Open Space or Public Facilities
Parking (Commercial Lot)	Commercial
Parking (Garage)	Not Applicable
Restaurant / Lounge	Commercial
School (Public)	Parks / Open Space or Public Facilities
School (Private)	Not Applicable
Service Station	Not Applicable
Tavern / Lounge	Commercial
Post Office / Post Service	Commercial
Vet / Animal Control Service	Not Applicable
Grocery Store	Commercial
Daycare Center	Commercial
Mini Lube	Not Applicable
Warehouse	Employment Park
High Tech / Tech Flex	Not Applicable
Industrial Park	Employment Park
Industrial Park	Not Applicable
Industrial (General Purpose)	Employment Park
Industrial (Heavy)	Employment Park
Industrial (Light)	Employment Park
Air Terminal and Hangers	Not Applicable
Mini Warehouse	Employment Park
Terminal (Rail)	Not Applicable
Terminal (Marine / Commercial Fishery)	Not Applicable
Terminal (Grain)	Not Applicable
Terminal (Auto / Bus /Other)	Not Applicable
Utility, Public	Parks / Open Space or Public Facilities
Utility, Private (Radio / TV)	Commercial
Terminal (Marine)	Not Applicable
Historic Property (Residence)	Not Applicable
Historic Property (Office)	Not Applicable
Historic Property (Retail)	Not Applicable
Historic Property (Eat / Drink)	Not Applicable

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Table 1: Parcel Present Land Use and Assigned Water Demand Category

Parcel Present Land Use	Water Demand Category ¹
Historic Property (Loft / Warehouse)	Not Applicable
Historic Property (Park / Billboard)	Not Applicable
Historic Property (Transient Facility)	Not Applicable
Historic Property (Recreation / Entertainment)	Not Applicable
Historic Property (Misc)	Not Applicable
Historic Property (Vacant Land)	Not Applicable
Vacant (Single-family)	Single-Family Residential
Vacant (Multi-family)	Multi-Family Residential
Vacant (Commercial)	Commercial
Vacant (Industrial)	Employment Park
Reforestation (RCW 84.28)	Not Applicable
Forest Land (Class - RCW 84.33)	Not Applicable
Forest Land (Desig-RCW84.33)	Not Applicable
Open Space (Curr Use-RCW84.34)	Parks / Open Space or Public Facilities
Open Space(Agric-RCW 84.34)	Not Applicable
Open Space Timber Land / Greenbelt	Parks / Open Space or Public Facilities
Easement	Not Applicable
Reserve / Wilderness Area	Parks / Open Space or Public Facilities
Right of Way / Utility, Road	Parks / Open Space or Public Facilities
River / Creek / Stream	None
Tideland, 1st Class	Not Applicable
Tideland, 2nd Class	Not Applicable
Transferable Development Rights	Not Applicable
Water Body, Fresh	None
Shell Structure	Commercial
Bed and Breakfast	Not Applicable
Rooming House	Not Applicable
Fraternity / Sorority House	Not Applicable

Note:

1. Current land uses that are not within the study area have been identified as Not Applicable.

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Table 2: Parcel Zoning and Assigned Water Demand Category

Zoning Entity	Zoning Abbreviation	Zoning District Title	Number of Dwelling Units per Acre	Water Demand Category ¹
City of North Bend	CLDR	Constrained Low Density Residential	4	Single-Family Residential
City of North Bend	CR	Cottage Residential	6 to 10	Single-Family Residential
City of North Bend	DC	Downtown Commercial	0	Commercial
City of North Bend	EP-1	Employment Park -1	0	Employment Park
City of North Bend	EP-2	Employment Park -2	0	Employment Park
City of North Bend	HDR	High Density Residential	9 to 10	Multi-Family Residential
City of North Bend	HDR1	High Density Residential With Density Restrictions	9 to 18	Multi-Family Residential
City of North Bend	IC	Interchange Commercial	0	Commercial
City of North Bend	IMU	Interchange Mixed Use	21	Multi-Family Residential and Commercial
City of North Bend	LDR	Low Density Residential	4	Single-Family Residential
City of North Bend	NB	Neighborhood Business	0	Commercial
City of North Bend	POSPF	Parks / Open Space or Public Facilities	0	Parks / Open Space or Public Facilities
City of North Bend	ROW	Right of way area	0	Vacant
City of North Bend	RR	Un-zoned areas	0	Vacant
King County	A35	Agricultural 35 acre minimum lot size	0.03	Agricultural Irrigation
King County	CR	Cottage Residential, 6-10 DU/1 acre	6 to 10	Single-Family Residential
King County	DC	Downtown Commercial	0	Commercial
King County	EP-1	Employment Park - 1	0	Employment Park
King County	EP-2	Employment Park - 2	0	Employment Park
King County	F	Forest	0	Vacant
King County	HDR	High Density Residential, 9-18 DU/1 acre	9 to 18	Multi-Family Residential
King County	IC	Interchange Commercial	0	Commercial
King County	IMU	Interchange Mixed Use	0	Commercial
King County	LDR	Low Density Residential, 4 DU/1 acre	4	Single-Family Residential
King County	NB	Neighborhood Business	0	Commercial
King County	NBP	Neighborhood Business	0	Commercial
King County	OS2	Open Space	0	Vacant
King County	OS3	Open Space	0	Vacant
King County	POSPF	Parks / Open Space or Public Facilities	0	Parks / Open Space or Public Facilities
King County	RA10	Rural Area, 1 DU/10 acres	0.10	Single-Family Residential
King County	RA2.5	Rural Area, 1 DU/5 acres	0.20	Single-Family Residential
King County	RA5	Rural Area, 1 DU/5 acres	0.20	Single-Family Residential
King County	RA5P	Rural Area, 1 DU/5 acres	0.20	Single-Family Residential
King County	UR	Urban Reserve, 1 DU/5 acres	0.20	Single-Family Residential

Note:

1. Exceptions to the overall zoning categorization water demand assignments include parcels with a present land use of Open Space Timber Land / Greenbelt, Reserve / Wilderness Area, River / Stream / Creek or Water Body, Fresh. If the parcels with these present land use designations do not have a current water connection, then they are assumed to have no water use in the future because they would be unirrigated Open Space.

Table 3: Water Demand Forecasting Scenario Inputs

Option			Scenario A
GEOGRAPHIC EXTENT OF PARCELS INCLUDED IN WATER DEMANDS			
City of North Bend Water Service Area (WSA)	City of North Bend	Include?	Yes
	Urban Growth Area (Potential Annexation Area)	Include?	Yes
	Unincorporated King County	Include?	Yes
	City of Snoqualmie ¹	Include?	No
Sallal Water Service Area (Wholesale Water from North Bend)	City of North Bend	Include?	Yes
		If included, identify start date.	1-Jan-21
	Urban Growth Area (Potential Annexation Area)	Include?	Yes
		If included, identify start date.	1-Jan-21
Parcels with an alternative water source	Parcels within the geographic areas defined above which have an alternative water source (e.g. water right or permit exempt well) are connected to the water system	Include?	No
PARCEL DEVELOPMENT			
Development Period End Year		Year to end development.	2050
Planned Development Schedule		Include?	Yes
Transition - Development moratorium schedule: The City assumed that there would be a moratorium on residential development (single-family, multi-family, and multi-family commercial) from January 1, 2018 through December 31, 2021 excluding the already planned projects.		Include the City's development moratorium schedule?	No
		If no, then please define the start and end dates for development moratoriums for each water demand category.	No moratorium
WATER CONSERVATION			
North Bend WSA Conservation	Indoor Water Conservation	Include?	No
		If included, then what is the annual percent of indoor water conservation?	--
	Outdoor Water Conservation	Include?	No
		if included, then how should it be defined: 1) as an annual percent of the outdoor water use or 2) as a fraction of the monthly outdoor water use?	--
		If #1 is selected, then what is the annual percent of outdoor water conservation?	--
		If #2 is selected, then what is the percent of outdoor water conservation for May, June, July, August, September, and October?	--
Sallal WSA Conservation	Indoor Water Conservation	Include? This will be excluded if Sallal wholesale water is excluded.	No
		If included, then what is the annual percent of indoor water conservation?	--
	Outdoor Water Conservation	Include? This will be excluded if Sallal wholesale water is excluded.	No
		if included, then how should it be defined: 1) as an annual percent of the outdoor water use or 2) as a fraction of the monthly outdoor water use?	--
		If #1 is selected, then what is the annual percent of outdoor water conservation?	--
		If #2 is selected, then what is the percent of outdoor water conservation for May, June, July, August, September, and October?	--
DISTRIBUTION SYSTEM LEAKAGE			
City of North Bend WSA	The distribution system leakage percent to apply to the customer water demands	Include?	Yes
		If included, then should the distribution system leakage be based on a random selection from the historical distribution or a specific assumed percentage each year?	Specific percentage
		If included with a specific percentage each year, then provide the percentage to use for each year from 2020 through the end of the simulation period.	22.4%
Sallal WSA	The distribution system leakage percent to apply to the customer water demands	Include? This will be excluded if Sallal wholesale water is excluded.	No
		If included, then should the distribution system leakage be based on a random selection from the historical distribution or a specific assumed percentage each year?	--
		If included with a specific percentage each year, then provide the percentage to use for each year from 2020 through the end of the simulation period.	--

Note:

1. There is one parcel that is assigned to the City of Snoqualmie jurisdiction in the City's WSA. This parcel is currently not connected to the City's WSA and has a future zoning of Open Space, so excluding it from the water demand forecast will not impact the water results.

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Table 4: Water Demand Forecasting Scenarios Included in the Draft Water and Mitigation Forecast Report (Golder 2019a)

Scenario	Water Demand			
	City of North Bend Water Service Area	Sallal Water Service Area (Wholesale Water from North Bend)	Water Conservation	Distribution System Leakage
Scenarios 1, 2, 3, 10	Included with all permit exempt well parcels	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying demand year-round.	No water conservation	Stochastic distributions
Scenario 4	Included with only permit exempt well parcels that are developed	Include City and PAA with only permit exempt well parcels that are developed, starting 1/1/2020, with supplying demand year-round.	No water conservation	Stochastic distributions
Scenario 5	Included with all permit exempt well parcels	Excluded	No water conservation	Stochastic distributions
Scenario 6	Included with all permit exempt well parcels	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying demand year-round.	No water conservation	User-defined time series for North Bend (down to 8% DSL by 2025); stochastic distribution for Sallal
Scenario 7	Included with all permit exempt well parcels	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying demand year-round.	1% reduction in annual indoor water use; 10% reduction in outdoor water use in Aug 1 to Oct 31	Stochastic distributions
Scenario 8	Included with all permit exempt well parcels	Excluded	No water conservation	User-defined time series for North Bend (down to 8% DSL by 2025)
Scenario 9	Included with all permit exempt well parcels	Excluded	1% reduction in annual indoor water use; 10% reduction in outdoor water use in Aug 1 to Oct 31	Stochastic distributions
Scenario 11	Included with all permit exempt well parcels	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying 100% demand Jan - June, and Nov - December, and 50% demand July - Oct.	No water conservation	Stochastic distributions
Scenario 12	Included with only permit exempt well parcels that are developed	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying demand year-round.	1% reduction in annual indoor water use; 10% reduction in outdoor water use in Aug 1 to Oct 31	User-defined time series for North Bend (down to 8% DSL by 2025)

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Table 5: City Water Service Area and Wholesale Water to Sallal Water Demand Forecast, Scenario A, 2020 to 2050

Year	Mean Annual Water Demand (million gallons per year) ¹								
	City Water Service Area	Single-Family Residential	Multi-Family Residential	Multi-Family Residential and Commercial	Commercial	Employment Park	Parks / Open Space or Public Facilities	Agricultural Irrigation	Sallal Wholesale
2020	252.18	128.55	41.17	0.00	55.54	6.48	20.44	0.00	0.00
2021	272.85	131.65	53.35	13.06	47.76	6.53	20.50	0.00	87.21
2022	276.22	135.74	53.55	12.83	47.45	6.45	20.20	0.00	89.87
2023	284.94	138.84	53.90	14.08	49.28	6.82	21.60	0.42	90.92
2024	296.88	142.23	54.38	15.71	51.84	7.34	23.98	1.40	92.56
2025	311.03	147.43	54.75	17.51	54.61	7.95	26.47	2.31	94.50
2026	324.90	151.85	55.01	19.36	57.43	8.48	29.05	3.72	96.16
2027	337.19	155.88	54.98	21.04	60.42	9.28	31.33	4.26	98.09
2028	351.20	160.79	55.58	22.46	63.37	9.78	33.51	5.71	99.91
2029	365.68	165.39	55.76	24.51	66.49	10.45	36.60	6.48	101.71
2030	379.86	169.42	56.36	26.41	69.68	11.09	39.46	7.44	103.85
2031	394.18	174.92	56.45	28.28	72.66	11.61	41.98	8.28	105.73
2032	409.54	179.58	56.60	30.70	75.88	12.38	44.86	9.54	108.06
2033	422.62	183.45	56.95	32.84	78.63	12.99	46.69	11.07	109.41
2034	437.10	188.54	57.25	34.22	82.36	13.77	49.33	11.63	111.48
2035	455.63	195.22	57.50	37.17	85.93	14.55	52.33	12.93	113.78
2036	469.08	199.83	57.87	38.81	88.14	14.83	54.95	14.65	115.62
2037	482.51	203.20	58.18	41.20	91.73	15.80	56.99	15.41	117.73
2038	500.37	209.81	58.64	43.70	95.17	16.29	60.47	16.29	119.86
2039	516.24	215.02	58.69	45.81	98.27	16.92	63.46	18.07	122.28
2040	531.98	220.98	58.97	47.70	102.09	17.77	65.82	18.65	124.41
2041	549.03	225.59	59.60	50.51	105.58	18.44	69.42	19.89	126.70
2042	565.21	230.91	59.92	52.59	108.83	19.45	72.25	21.26	128.76
2043	583.63	236.76	60.17	54.64	113.13	20.32	75.80	22.81	131.13
2044	601.91	242.87	60.34	57.23	116.78	21.15	79.74	23.80	133.92
2045	619.02	248.45	61.10	59.64	120.71	21.77	82.06	25.29	135.91
2046	637.19	255.05	61.30	61.93	124.37	22.83	85.25	26.46	138.58
2047	657.58	261.80	61.77	64.83	129.13	23.55	89.08	27.42	141.05
2048	677.92	268.03	62.36	67.44	133.89	24.54	92.68	28.98	143.94
2049	691.33	273.06	62.95	69.31	136.70	24.95	94.73	29.63	145.44
2050	689.79	271.55	62.29	69.38	136.63	24.83	95.58	29.53	145.53

Note:

1. Results are based on 1500 realizations and include distribution system leakage of 22.4% for the City WSA water demands and 0% for the Sallal Wholesale water demands.

ATTACHMENT A

Executive Summary from Draft City
of North Bend Water Supply and
Mitigation Forecast (Golder 2019a)

Executive Summary

The City of North Bend (City) is updating its water system plan and is required to update its mitigation operations plan which includes an evaluation of the City's future water demand and the capacity of its mitigation sources to meet forecast mitigation demands. The City supplies water to its customers within its water service area (WSA) from two water production sources, Mt Si Spring and Centennial Well (NB-3). One of the water production sources, the Centennial Well, used under a water permit (G1-26617(A)), is junior to the minimum instream flow (MISF) requirements for the Snoqualmie and Snohomish Rivers (Ecology 2007). The Report of Examination (ROE) for this water permit included the results of modeling and analysis activities and specified the method for calculating the daily mitigation requirement (Ecology 2007). These analyses provided an estimate of the City's projected water demand through 2054, a worst-case scenario for the City's maximum daily mitigation requirement, and an analysis of the City's ability to meet the maximum daily mitigation requirement with two proposed (and subsequently permitted) mitigation sources (Hobo Springs and Sallal Wells).

Over the past 10 years, the City has operated its water and mitigation system daily, collecting data on the water production/mitigation sources, streamflows, mitigation demand, and mitigation supplied. The availability of additional data, including a historically low flow water year (2015), provides an opportunity to update the forecasted water system demand, mitigation requirement and mitigation supply available using an approach that is more consistent with the City's day-to-day operations. The City has also been operating with only one of the two mitigation sources, Hobo Springs. Therefore, the City is interested in understanding its current capacity to meet its mitigation obligations under a range of future scenarios.

Included as part of this report is a modeling tool that has been developed and used to forecast water system demands, mitigation requirements, and the degree of confidence in the capability of the mitigation sources to meet the mitigation requirements over the build-out period (through 2054). Using this tool, twelve scenarios were analyzed spanning combinations of the water demand, mitigation requirements and mitigation source/supply options (Table ES-1). Scenario 3 includes the assumptions consistent with the ROE. Scenarios 1, 2 and 4 through 11 were run using a deterministic simplification to compare alternative water management strategies and assumptions. These simplified scenarios were used to define a potential water management strategy, Scenario 12. Uncertainties such as climate and development schedules were incorporated using Monte Carlo simulation methods for Scenarios 1, 2 and 12 to better understand the likelihood of future conditions.

Deterministic Results

Eleven scenarios were run deterministically to evaluate analysis assumptions on the water demand projections from 2020 through 2054, the ability to supply the water demand, and the availability of mitigation sources to offset net stream depletion during times when MISF are not met (Figure ES-1).

Water System Demand: Scenarios 1, 2 and 3 indicate that the total water demand could range from 339 million gallons per year (MGal/year) in 2020 to 1031 MGal/year by 2054. This is comparable but slightly lower than the forecast water demand in the ROE, which used 2004 zoning, 2004 development, and a per capita and square footage approach for estimating current and future water demands (Ecology 2007). Findings from the scenarios indicate that distribution system leakage (DSL), parcels with water supplies from alternative sources (e.g. exempt wells), water conservation measures, and extent of the Urban Growth Area (UGA) in Sallal's WSA supplied by the City are important considerations in overall water system demand.

Water Supply: Comparing the water system demand to the available water supply from Mt Si Spring and Centennial Well indicates:

- Mt Si Spring is unable to supply the City with water during certain low-flow conditions because flows at Mt Si Spring are below required by-pass rates.
- The City has adequate water supply until 2040 for projected water demand of its WSA and most of the UGA if Sallal supplies some of the water to the UGA in its WSA starting in 2034.
- The City could have one year less of sufficient supply available (until 2039) under the driest (lowest flow) climate conditions.
- Reducing summer wholesale water demands from Sallal (Scenario 11) does not change the City's ability to meet its WSA demands.
- DSL reductions create the most significant decreases in water system demand (Scenarios 6 and 8). Achieving an 8 percent DSL could provide adequate water supply for the City through 2054, with Sallal supplying some of its WSA in the UGA beginning in 2040.
- Water conservation measures (Scenarios 7 and 9) which reduce indoor water use by 1 percent annually and outdoor water use by 10 percent during late summer and early fall would result in the City having adequate water supply for its WSA through 2048, with Sallal supplying some of its WSA in the UGA beginning in 2036.

Mitigation Supply: The mitigation requirement is influenced by the water use from Centennial Well, so reducing the water demand from this source results in reducing the mitigation requirement as shown in scenarios with reduced DSL, water conservation and the smaller service area supplied. Continuing to manage Mt Si Spring and Centennial Well using the current management strategy by strategically timing withdrawals from the sources based on source availability and climate conditions (Scenario 1) rather than using a target monthly rate (Scenario 3) also results in less mitigation volume required. Comparing the mitigation requirement to the mitigation supply indicates:

- Hobo Springs and Sallal Wells could supply the required mitigation water through 2052 under dry climate conditions (Scenario 1). Adding the CGC water right as an additional mitigation source (Scenario 10) would not add additional supply years compared to Scenario 1.
- Mitigation supply from Hobo Springs and Sallal Wells would only be sufficient through 2036 under the driest (lowest flow) climate conditions (Scenario 2) and through 2040 under the target Mt Si Spring rate operating conditions as assumed in the ROE which did not minimize use of the Centennial Well during low river flows (Scenario 3).
- Reducing the water demand by more-realistically accounting for alternative water sources, reducing water supplied to Sallal during the summer, reducing DSL and having a water conservation program results in the City having sufficient mitigation supply through 2054, if the Sallal water demands and mitigation source are included (Scenarios 4, 11, 6, and 7).
- If the Sallal wholesale water demands are not supplied by the City and the City does not have access to Sallal Wells as a mitigation source, then the City's mitigation supply from Hobo Springs and CGC water right would only be sufficient through 2025 (Scenarios 5, 8, and 9).

Monte Carlo Results

Based on projected water demand with demand reduction measures (Scenario 12) Hobo Springs, Sallal Wells and CGC water right can at least supply mitigation water through 2054 (95th percentile) (Figure ES-2). This estimate is based on less conservative calculations than the Golder (2007) analysis but is indicative of the historic climate record and daily operational strategies that are implemented by the City.

The strategies used in the tool have not been optimized. Therefore, optimization of the timing and management rules could improve overall water system performance and available mitigation supply forecasts beyond what has been reported here.

Future Applications

The water and mitigation demand forecast tool is a dynamic model that can be used by the City to update water demand calculations as new proposed projects are considered to support ongoing planning and water management activities. The tool can be used to answer the following types of questions:

- What is the likelihood that the City could supply water to a proposed development in the study area?
- When are additional mitigation supplies needed and how much mitigation water is needed? What months of the year is the mitigation water needed?

The list above provides an idea about the types of applications for the tool to support future decision-making related to the City's water supply and mitigation sources.

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Table ES-1: Water and Mitigation Supply and Demand Forecasting Scenarios

Scenario	Water Demand				Mitigation Requirement and Sources		
	City of North Bend Water Service Area	Sallal Water Service Area (Wholesale Water from North Bend)	Distribution System Leakage	Water Conservation	Water System Operation Strategy	Climate Option for Flows (Mt Si Spring, Hobo Springs, Streamflows)	Mitigation Sources
Scenario 1	Included with all permit exempt well parcels	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying demand year-round.	Stochastic distributions	No water conservation	Use entire WWTP return flow strategy, no Mt Si peaking strategy, use Mt Si when operational trigger occurs, Mt Si Bypass 3.05 cfs	Representative dry climate year (2015)	Hobo Springs and Sallal Wells
Scenario 2	Included with all permit exempt well parcels	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying demand year-round.	Stochastic distributions	No water conservation	Use entire WWTP return flow strategy, no Mt Si peaking strategy, use Mt Si when operational trigger occurs, Mt Si Bypass 3.05 cfs	One-Week Running Average of Lowest Flows with 1992 Streamflows	Hobo Springs and Sallal Wells
Scenario 3	Included with all permit exempt well parcels	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying demand year-round.	Stochastic distributions	No water conservation	Target monthly Mt Si rate, Mt Si Bypass 3.05 cfs	Representative dry climate year (2015)	Hobo Springs and Sallal Wells
Scenario 4	Included with only permit exempt well parcels that are developed	Include City and PAA with only permit exempt well parcels that are developed, starting 1/1/2020, with supplying demand year-round.	Stochastic distributions	No water conservation	Use entire WWTP return flow strategy, no Mt Si peaking strategy, use Mt Si when operational trigger occurs, Mt Si Bypass 3.05 cfs	Representative dry climate year (2015)	Hobo Springs and Sallal Wells
Scenario 5	Included with all permit exempt well parcels	Excluded	Stochastic distributions	No water conservation	Use entire WWTP return flow strategy, no Mt Si peaking strategy, use Mt Si when operational trigger occurs, Mt Si Bypass 3.05 cfs	Representative dry climate year (2015)	Hobo Springs and Cascade Golf Course with Pond
Scenario 6	Included with all permit exempt well parcels	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying demand year-round.	User-defined time series for North Bend (down to 8% DSL by 2025); stochastic distribution for Sallal	No water conservation	Use entire WWTP return flow strategy, no Mt Si peaking strategy, use Mt Si when operational trigger occurs, Mt Si Bypass 3.05 cfs	Representative dry climate year (2015)	Hobo Springs, Sallal Wells and Cascade Golf Course with Pond
Scenario 7	Included with all permit exempt well parcels	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying demand year-round.	Stochastic distributions	1% reduction in annual indoor water use; 10% reduction in outdoor water use in Aug 1 to Oct 31	Use entire WWTP return flow strategy, no Mt Si peaking strategy, use Mt Si when operational trigger occurs, Mt Si Bypass 3.05 cfs	Representative dry climate year (2015)	Hobo Springs, Sallal Wells and Cascade Golf Course with Pond
Scenario 8	Included with all permit exempt well parcels	Excluded	User-defined time series for North Bend (down to 8% DSL by 2025)	No water conservation	Use entire WWTP return flow strategy, no Mt Si peaking strategy, use Mt Si when operational trigger occurs, Mt Si Bypass 3.05 cfs	Representative dry climate year (2015)	Hobo Springs and Cascade Golf Course with Pond
Scenario 9	Included with all permit exempt well parcels	Excluded	Stochastic distributions	1% reduction in annual indoor water use; 10% reduction in outdoor water use in Aug 1 to Oct 31	Use entire WWTP return flow strategy, no Mt Si peaking strategy, use Mt Si when operational trigger occurs, Mt Si Bypass 3.05 cfs	Representative dry climate year (2015)	Hobo Springs and Cascade Golf Course with Pond
Scenario 10	Included with all permit exempt well parcels	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying demand year-round.	Stochastic distributions	No water conservation	Use entire WWTP return flow strategy, no Mt Si peaking strategy, use Mt Si when operational trigger occurs, Mt Si Bypass 3.05 cfs	Representative dry climate year (2015)	Hobo Springs, Sallal Wells and Cascade Golf Course with Pond
Scenario 11	Included with all permit exempt well parcels	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying 100% demand Jan - June, and Nov - December, and 50% demand July - Oct.	Stochastic distributions	No water conservation	Use entire WWTP return flow strategy, no Mt Si peaking strategy, use Mt Si when operational trigger occurs, Mt Si Bypass 3.05 cfs	Representative dry climate year (2015)	Hobo Springs, Sallal Wells and Cascade Golf Course with Pond
Scenario 12	Included with only permit exempt well parcels that are developed	Include City and PAA with all permit exempt well parcels, starting 1/1/2020, with supplying demand year-round.	User-defined time series for North Bend (down to 8% DSL by 2025)	1% reduction in annual indoor water use; 10% reduction in outdoor water use in Aug 1 to Oct 31	Use entire WWTP return flow strategy, no Mt Si peaking strategy, use Mt Si when operational trigger occurs, Mt Si Bypass 3.05 cfs	Randomly repeat historical data	Hobo Springs, Sallal Wells and Cascade Golf Course with Pond

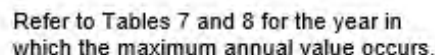
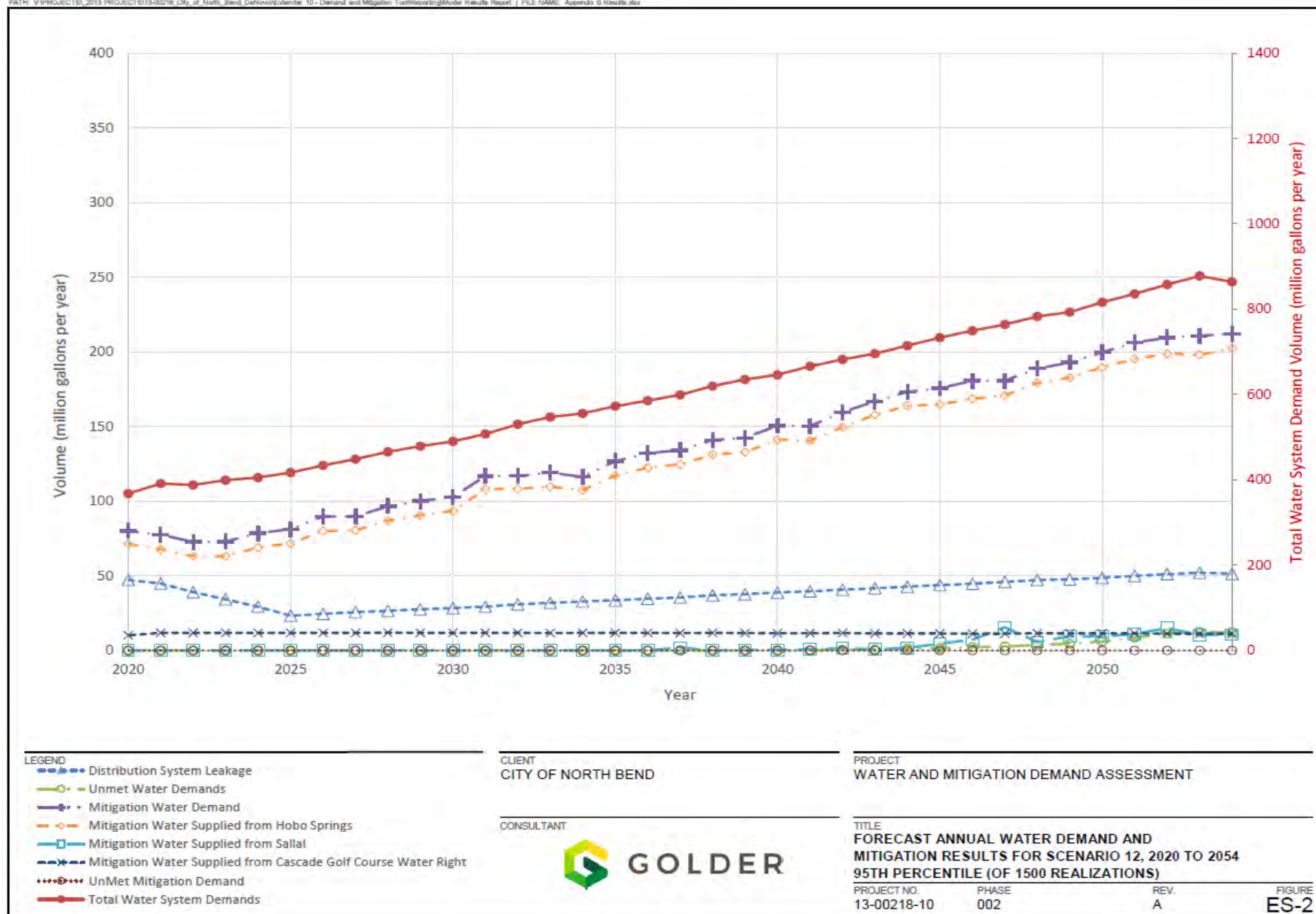


FIGURE
FS-1

October 2019

13-00218-10

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Keenan Ferar

From: Seal, Alyssa <Alyssa_Seal@golder.com>
 Sent: Wednesday, January 08, 2020 2:08 PM
 To: Keenan Ferar
 Cc: Russ Porter; DeNovio, Nicole
 Subject: RE: North Bend Water Demand Projection Questions
 Attachments: MFR and Commercial Breakdown Estimate_2020.01.08.xlsx

Hi Keenan,

For the first question, we did not use a ratio to estimate the demands for the mixed-used developments. It was based on the number of dwelling units for the multi-family residential (MFR) demands and for the parcel area for the commercial water demands. We have separated the water demands for you using the following approach: we calculated the average unit water use from the MFR category and then multiplied the unit water demand by the average number of units in the MFR and Commercial category. I have attached a table with the break-down using this approach. Should we add this to the draft memo table?

For the second question, yes, we uniformly applied the 22.4% DSL to all water demands in the City, so the demands across all categories were inflated by 22.4%. The Wholesale water demand category does not have any DSL included.

Alyssa

From: Keenan Ferar <kferar@g-o.com>
 Sent: Tuesday, January 07, 2020 9:53 AM
 To: Seal, Alyssa <Alyssa_Seal@golder.com>
 Cc: Russ Porter <rporter@g-o.com>
 Subject: North Bend Water Demand Projection Questions

EXTERNAL EMAIL

Hello Alyssa,

Thank you for putting together the North Bend water projections. We have two follow-up questions regarding these.

First, one of the demand categories modeled was a combined Multi-Family/Commercial category corresponding to mixed-use zoning. For the WSP projections we need to separate these. Was there a consistent demand ratio assigned to the MF and commercial portions for these mixed-use developments? If not, what would be a reasonable assumption?

Second, was DSL incorporated uniformly in the model? With DSL set to 22.4%, were demands across all categories inflated by 22.4%?

Thanks for your help,

*Keenan Ferar, E.I.T. | 206.284.0860 p | 206.283.3206 f
 Gray & Osborne, Inc. | 1130 Rainier Avenue South, Suite 300, Seattle, WA, 98144*



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Multi-Family Residential and Commercial	Multi-Family Residential	Commercial
Mgal/year	Mgal/year	Mgal/year
Mean	Mean	Mean
0	0	0
13.06	5.87	7.19
12.83	5.86	6.97
14.08	6.91	7.17
15.71	8.08	7.63
17.51	9.28	8.23
19.36	10.45	8.91
21.04	11.61	9.43
22.46	12.91	9.55
24.51	14.06	10.45
26.41	15.38	11.03
28.28	16.54	11.74
30.7	17.8	12.9
32.84	19	13.84
34.22	20.4	13.82
37.17	21.68	15.49
38.81	23.04	15.77
41.2	24.52	16.68
43.7	25.89	17.81
45.81	27.2	18.61
47.7	28.58	19.12
50.51	30.19	20.32
52.59	31.64	20.95
54.64	33.11	21.53
57.23	34.5	22.73
59.64	36.38	23.26
61.93	37.9	24.03
64.83	39.64	25.19
67.44	41.56	25.88
69.31	42.27	27.04
69.38	41.86	27.52

APPENDIX G

HYDRAULIC MODEL RESULTS

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
J-1	2.35	436	591.42	67.21
J-10	2.35	444	591.44	63.76
J-100	2.35	453	592.53	60.34
J-101	2.35	455	592.54	59.48
J-102	2.35	457	592.54	58.61
J-103	2.35	453	592.54	60.34
J-104	2.35	457	592.53	58.61
J-105	2.35	453	592.53	60.34
J-106	2.35	449	591.82	61.76
J-107	2.35	447	591.73	62.59
J-108	2.35	449	591.85	61.77
J-109	2.35	453	591.88	60.06
J-11	2.35	441	591.44	65.06
J-110	2.35	451	592	60.97
J-111	2.35	453	592.12	60.16
J-112	2.35	453	592.24	60.21
J-113	2.35	452	592.24	60.64
J-114	2.35	452	592.11	60.59
J-115	2.35	447	591.86	62.64
J-116	2.35	450	591.86	61.34
J-117	2.35	454	591.88	59.62
J-119	2.35	453	591.06	59.7
J-12	2.35	431	591.45	69.38
J-120	2.35	452	591.05	60.13
J-121	2.35	449	591.05	61.43
J-122	2.35	452	591.05	60.13
J-123	2.35	449	591.04	61.42
J-124	2.35	445	591.04	63.15
J-125	2.35	445	591.03	63.15
J-127	2.35	442	591.03	64.45
J-128	2.35	441	591.03	64.88
J-129	2.35	443	591.03	64.01
J-13	2.35	447	591.43	62.46
J-130	2.35	445	591.04	63.15
J-131	2.35	446	591.04	62.72
J-132	2.35	445	591.04	63.15
J-133	2.35	435	591.01	67.46
J-134	2.35	440	591.01	65.3
J-135	0	520	591	30.7
J-136	2.35	444	591.01	63.57
J-137	2.35	444	591.03	63.58
J-138	2.35	448	591.03	61.85
J-139	2.35	444	591.02	63.58
J-14	2.35	445	591.43	63.32
J-140	2.35	446	591.03	62.72
J-141	2.35	446	591.04	62.72

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
J-142	2.35	445	591.05	63.16
J-143	2.35	444	591.04	63.58
J-144	2.35	444	591.04	63.58
J-145	2.35	460	591.04	56.66
J-146	2.35	445	591.04	63.15
J-147	2.35	448	591.04	61.86
J-148	2.35	443	591.05	64.02
J-149	2.35	448	591.04	61.86
J-15	2.35	441	591.43	65.05
J-150	2.35	447	591.04	62.29
J-151	2.35	443	591.04	64.02
J-152	2.35	443	591.04	64.02
J-153	2.35	443	591.04	64.02
J-154	2.35	460	591.04	56.67
J-155	2.35	467	591.04	53.64
J-156	2.35	490	591.04	43.69
J-157	2.35	470	591.04	52.34
J-158	2.35	470	591.04	52.34
J-159	2.35	473	591.04	51.04
J-16	2.35	439	591.43	65.92
J-160	1.86	502	706.97	88.64
J-161	1.86	536	706.97	73.93
J-162	1.86	556	706.97	65.29
J-163	1.86	580	706.97	54.91
J-164	1.86	599	706.97	46.69
J-165	1.86	615	706.97	39.77
J-166	1.86	512	706.97	84.31
J-167	1.86	550	706.97	67.88
J-168	1.86	592	706.97	49.72
J-169	1.86	539	706.97	72.64
J-17	2.35	440	591.43	65.48
J-170	1.86	615	706.97	39.77
J-171	1.86	581	706.97	54.47
J-172	2.35	448	591.04	61.86
J-173	2.35	448	591.04	61.86
J-174	2.35	490	591.04	43.69
J-175	2.35	477	591.04	49.31
J-176	1.86	490	706.99	93.83
J-177	1.86	485	706.99	95.99
J-178	1.86	553	706.99	66.59
J-179	1.86	560	706.99	63.57
J-18	2.35	443	591.43	64.19
J-180	1.86	497	706.99	90.81
J-181	1.86	518	706.99	81.73
J-182	1.86	535	706.97	74.37
J-183	1.86	540	706.97	72.2

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
J-184	1.86	508	706.97	86.04
J-185	1.86	520	706.97	80.85
J-186	1.86	493	706.97	92.53
J-187	1.86	525	706.98	78.7
J-188	1.86	527	706.98	77.83
J-189	1.86	577	706.99	56.21
J-190	1.86	600	707	46.27
J-191	1.86	621	707	37.19
J-192	1.86	630	707	33.3
J-194	1.86	600	707	46.27
J-195	1.86	578	706.99	55.78
J-196	1.86	541	706.99	71.78
J-197	1.86	553	706.99	66.59
J-198	1.86	497	706.99	90.81
J-199	1.86	480	706.99	98.16
J-2	2.35	434	591.42	68.07
J-20	2.35	441	591.46	65.07
J-200	0	480	706.99	98.16
J-201	0	480	591.04	48.02
J-202	2.35	447	591.04	62.29
J-203	2.35	447	591.04	62.29
J-204	2.35	445	591.04	63.15
J-205	2.35	444	591.05	63.59
J-206	2.35	445	591.04	63.15
J-209	2.35	444	591.05	63.59
J-21	2.35	448	591.43	62.02
J-211	2.35	441	591.42	65.05
J-212	2.35	441	591.46	65.07
J-213	2.35	444	591.46	63.77
J-214	2.35	441	591.46	65.07
J-215	2.35	441	591.46	65.07
J-216	2.35	441	591.47	65.07
J-217	2.35	438	591.47	66.36
J-218	2.35	441	591.47	65.07
J-219	2.35	433	591.46	68.53
J-22	2.35	439	591.45	65.92
J-220	2.35	445	591.63	63.41
J-221	2.35	442	591.54	64.67
J-222	2.35	444	591.55	63.8
J-223	2.35	444	591.56	63.81
J-224	2.35	443	591.59	64.26
J-225	2.35	443	591.59	64.26
J-226	2.35	444	591.62	63.84
J-227	2.35	445	591.69	63.43
J-228	2.35	444	591.62	63.84
J-229	2.35	447	591.71	62.58

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
J-23	2.35	442	591.46	64.63
J-230	2.35	448	591.82	62.19
J-231	2.35	449	591.83	61.76
J-232	2.35	448	591.71	62.15
J-233	2.35	446	591.7	63
J-234	2.35	449	591.82	61.76
J-235	2.35	442	591.52	64.66
J-236	2.35	442	591.52	64.66
J-237	2.35	442	591.51	64.65
J-238	2.35	444	591.42	63.75
J-239	2.35	442	591.46	64.63
J-24	2.35	441	591.45	65.06
J-240	2.35	446	591.48	62.91
J-241	2.35	442	591.51	64.65
J-242	2.35	442	591.5	64.65
J-243	2.35	443	591.51	64.22
J-244	2.35	443	591.52	64.23
J-245	2.35	447	591.71	62.58
J-246	2.35	435	591.01	67.46
J-247	2.35	435	591.01	67.46
J-248	2.35	460	591.98	57.07
J-249	2.35	442	591.48	64.64
J-25	2.35	441	591.47	65.07
J-250	2.35	439	591.46	65.93
J-253	2.35	442	591.43	64.62
J-255	2.35	443	591.49	64.21
J-256	2.35	439	591.46	65.93
J-257	2.35	439	591.47	65.93
J-258	2.35	436	591.47	67.23
J-259	2.35	437	591.47	66.8
J-26	2.35	442	591.44	64.62
J-260	2.35	438	591.48	66.37
J-261	2.35	439	591.47	65.93
J-262	2.35	440	591.46	65.5
J-263	2.35	438	591.48	66.37
J-264	2.35	436	591.47	67.23
J-265	2.35	440	591.46	65.5
J-266	2.35	476	591.08	49.76
J-267	2.35	447	592.02	62.71
J-268	2.35	450	592.02	61.41
J-269	2.35	460	591.04	56.67
J-27	2.35	444	591.45	63.76
J-270	2.35	460	591.04	56.67
J-271	2.35	440	591.22	65.39
J-272	2.35	456	592.56	59.05
J-273	2.35	470	592.69	53.06

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
J-274	2.35	455	592.52	59.47
J-275	2.35	457	592.41	58.56
J-276	2.35	459	592.41	57.69
J-277	2.35	457	592.41	58.55
J-278	2.35	455	592.4	59.42
J-279	2.35	455	592.4	59.42
J-28	2.35	444	591.43	63.75
J-282	2.35	453	592.4	60.28
J-283	2.35	444	592.4	64.17
J-284	2.35	456	592.4	58.99
J-285	2.35	456	592.4	58.99
J-286	2.35	457	592.41	58.55
J-287	2.35	453	592.32	60.25
J-288	2.35	454	592.28	59.8
J-289	2.35	454	592.27	59.79
J-29	2.35	446	591.44	62.89
J-290	2.35	453	592.27	60.22
J-291	2.35	453	592.27	60.22
J-292	2.35	452	592.27	60.66
J-293	2.35	454	592.32	59.82
J-294	2.35	442	591.01	64.44
J-295	2.35	442	591.01	64.44
J-296	2.35	436	591.42	67.21
J-297	0	635	707	31.13
J-298	0	635	780.69	63
J-299	0	473	591.04	51.04
J-3	2.35	431	591.43	69.38
J-30	2.35	447	591.44	62.46
J-300	1.86	545	706.99	70.05
J-301	1.86	488	706.99	94.7
J-302	1.86	480	706.99	98.16
J-303	0	580	707	54.92
J-304	0	623	707	36.32
J-305	0	593	707	49.3
J-306	0	572	707	58.38
J-307	0	623	707	36.32
J-308	1.86	477	706.99	99.46
J-309	0	477	591.04	49.31
J-31	2.35	449	591.42	61.59
J-310	1.86	506	706.99	86.92
J-311	6.97	593	780.57	81.11
J-312	6.97	572	780.56	90.19
J-313	6.97	580	780.57	86.73
J-314	6.97	623	780.61	68.15
J-315	6.97	625	780.62	67.3
J-316	0	635	780.68	63

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
J-317	1.86	635	707	31.13
J-318	1.86	535	706.97	74.37
J-319	1.86	477	706.99	99.46
J-32	2.35	449	591.42	61.59
J-321	2.35	469	592.51	53.41
J-327	2.35	439	591.46	65.93
J-328	2.35	468	593.82	54.41
J-33	2.35	450	591.42	61.16
J-34	2.35	450	591.43	61.16
J-35	2.35	451	591.43	60.72
J-36	2.35	441	591.46	65.06
J-37	2.35	444	591.46	63.77
J-38	2.35	452	592.36	60.7
J-39	2.35	444	592.05	64.02
J-4	2.35	421	591.43	73.7
J-40	2.35	443	591.49	64.21
J-401	2.35	460	592.81	57.43
J-403	2.35	470	595.32	54.19
J-405	0	470	597.39	55.09
J-407	0	470	597.69	55.22
J-409	2.35	468	593.89	54.44
J-41	2.35	446	592.04	63.15
J-42	2.35	448	592.29	62.39
J-43	2.35	448	592.29	62.39
J-45	2.35	442	591.47	64.64
J-46	2.35	443	591.47	64.2
J-47	2.35	440	591.47	65.5
J-48	2.35	443	591.46	64.2
J-49	2.35	438	591.48	66.37
J-5	0	431	591.43	69.38
J-50	2.35	436	591.47	67.23
J-51	2.35	434	591.47	68.1
J-53	2.35	444	591.49	63.78
J-54	2.35	442	591.5	64.65
J-55	2.35	442	591.5	64.65
J-56	2.35	441	591.59	65.12
J-57	2.35	442	591.59	64.69
J-58	2.35	444	591.6	63.83
J-59	2.35	443	591.6	64.26
J-6	0	432	591.43	68.94
J-60	2.35	441	591.58	65.12
J-61	2.35	443	591.5	64.22
J-62	2.35	436	591.48	67.23
J-63	2.35	436	591.48	67.23
J-64	2.35	441	591.47	65.07
J-65	2.35	431	591.46	69.39

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
J-66	2.35	430	591.46	69.82
J-67	2.35	434	591.46	68.09
J-68	2.35	439	591.46	65.93
J-69	2.35	444	591.6	63.83
J-7	0	435	591.43	67.65
J-70	2.35	448	591.75	62.16
J-71	2.35	444	591.61	63.83
J-72	2.35	452	592.02	60.55
J-74	2.35	454	592.8	60.02
J-75	2.35	453	592.8	60.45
J-76	2.35	452	592.02	60.55
J-77	2.35	452	592.02	60.55
J-78	2.35	452	592.02	60.55
J-79	2.35	448	591.84	62.2
J-8	2.35	421	591.44	73.7
J-80	2.35	462	592.82	56.57
J-81	2.35	478	592.98	49.72
J-82	2.35	472	593.11	52.37
J-83	2.35	467	592.89	54.44
J-84	2.35	465	592.76	55.25
J-85	2.35	470	592.89	53.14
J-86	2.35	467	592.16	54.12
J-87	2.35	466	592.16	54.55
J-88	2.35	462	592.15	56.28
J-89	2.35	464	592.15	55.42
J-9	2.35	429	591.44	70.24
J-90	2.35	448	591.84	62.2
J-91	2.35	474	591.49	50.8
J-92	2.35	472	591.08	51.49
J-93	2.35	464	592.15	55.42
J-94	2.35	462	592.15	56.28
J-95	2.35	450	591.85	61.34
J-96	2.35	452	591.94	60.51
J-97	2.35	453	591.94	60.08
J-98	2.35	458	592.39	58.11
J-99	2.35	456	592.51	59.03
J411	0	480	591.04	48.02
J413	0	480	706.99	98.16
J415	2.35	443	591.6	64.26
J417	2.35	434	591.46	68.09
J421	2.35	458	591.04	57.53
J423	2.35	454.87	591.08	58.9
J425	2.35	473.93	591.1	50.67
J427	2.35	486	591.06	45.43
J431	2.35	500	591.06	39.38
J433	2.35	468	592.6	53.88

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
J435	2.35	470	592.67	53.05
J437	2.35	468	592.65	53.9
J439	2.35	460	592.88	57.46
J441	2.35	452.33	592.02	60.4
J443	2.35	454	592.75	60
J445	2.35	456	592.55	59.05
J447	2.35	460	592.5	57.3
J449	2.35	456	592.75	59.14
J451	2.35	445.7	591.61	63.1
J453	2.35	445.53	591.61	63.17
J455	2.35	445.99	591.68	63
J457	2.35	443.16	591.59	64.19
J459	2.35	441.89	591.59	64.73
J461	2.35	441.54	591.59	64.89
J463	2.35	448.37	591.84	62.04
J465	2.35	457.02	592.02	58.38
J467	2.35	444	591.46	63.77
J469	2.35	440.58	591.46	65.25
J471	2.35	439	591.46	65.93
J473	2.35	436.05	591.48	67.21
J475	2.35	436.6	591.49	66.98
J477	2.35	440.26	591.48	65.39
J479	2.35	434.29	591.46	67.96
J481	2.35	452	592.41	60.72
J483	2.35	454	592.43	59.86
J485	2.35	458	592.45	58.14
J487	2.35	456	592.44	59
J489	2.35	456	592.44	59
J491	2.35	458	592.47	58.15
J493	2.35	456	592.44	59
J495	2.35	460	592.49	57.29
J497	2.35	436.52	591.45	67
J499	2.35	440	591.45	65.49
J501	2.35	435.21	591.44	67.56
J503	2.35	442	591.44	64.62
J505	2.35	434	591.46	68.09
J507	2.35	427.6	591.46	70.86
J509	2.35	432	591.46	68.96
J511	2.35	440.33	591.37	65.31
J513	2.35	442	591.44	64.62
J515	2.35	444	591.38	63.73
J517	2.35	454	592.27	59.79
J519	2.35	463	592.67	56.07
J521	2.35	460	592.67	57.37
J523	2.35	474	592.66	51.31
J525	2.35	470	592.68	53.05

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
J527	2.35	470	592.67	53.05
J529	2.35	475	592.74	50.92
J531	2.35	475	592.82	50.95
J533	2.35	470	592.83	53.11
J535	2.35	473	592.84	51.82
J537	2.35	477	592.93	50.13
J539	2.35	476	592.67	50.45
J541	2.35	475	592.67	50.89
J543	2.35	475	592.67	50.89
J545	2.35	475	592.67	50.88
J547	2.35	475	592.67	50.88
J549	2.35	475	592.67	50.88
J551	2.35	474	592.66	51.31
J553	2.35	478	592.66	49.58
J555	2.35	475	592.66	50.88
J557	2.35	475	592.66	50.88
J559	2.35	473	592.66	51.75
J561	2.35	474	592.66	51.31
J563	2.35	470	592.67	53.05
J565	2.35	445.75	591.04	62.83
J567	2.35	443.57	591.04	63.77
J569	2.35	448	591.04	61.85
J571	2.35	446	591.04	62.72
J573	2.35	448	591.04	61.85
J575	2.35	436	591.46	67.23
J577	2.35	436	591.47	67.23
J579	2.35	436.28	591.47	67.11
J581	2.35	456	592.47	59.01
J583	2.35	458	592.8	58.29
J585	2.35	460	592.75	57.41
J587	2.35	468	594.92	54.89
J589	2.35	467.02	594.92	55.31
J591	2.35	455.27	592.54	59.36
J593	2.35	462	592.67	56.51
J595	2.35	466	592.69	54.78
J597	2.35	456.36	592.55	58.89
J599	2.35	463.36	592.78	55.97
J601	2.35	450.95	591.93	60.96
J603	2.35	454	591.89	59.63
J605	2.35	454	591.87	59.62
J607	2.35	462	592.81	56.57
J609	2.35	462	592.74	56.54
J611	2.35	447	591.03	62.29
J613	2.35	442.19	591.03	64.37
J615	0	442.97	591.46	64.21
J617	0	478	592.98	49.72

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
NINTENDO	2.35	448	591.02	61.85

APPENDIX H

WATER QUALITY MONITORING REPORT, STAGE 2 DISINFECTION BYPRODUCTS MONITORING PLAN, AND COLIFORM MONITORING PLAN



PO Box 896
North Bend, WA 98045
www.northbendwa.gov

2019 Water Quality Report

The City of North Bend is pleased to provide you with its annual water quality report. This report is a requirement of the United States Environmental Protection Agency and the Washington State Department of Health

The City strives to provide you with a safe and dependable supply of drinking water. We work diligently to provide top quality water to more than 5,000 consumers (about 2,800 connections) each day. We are pleased to report that our drinking water is safe and in compliance with all State & Federal Health Standards.

Monitoring Results for Year 2018

Water quality results at the Mt. Si Spring and Centennial Well have always been satisfactory. Water treatment is achieved by disinfection with chlorine gas and liquid chlorine. To ensure that detectable disinfectant concentration is active in all parts of the distribution system, samples are taken and tested daily at ten strategic locations within the North Bend water service area. Water in the distribution system must maintain a total free chlorine of at least 0.2 ppm. Typically, disinfectant residuals are found in the 0.4-0.5 ppm range. The city is currently required to test six bacteriological samples per month for the presence of E.Coli and fecal coliform. To date, all samples have tested satisfactorily. The city monitors on a three-year cycle for volatile organic, inorganic and synthetic organic chemicals.

What are IOC's? Inorganic Chemicals are elements or compounds that may be natural in geology or caused by activities of humans through mining, industry or agriculture. In July and December 2018, the City submitted samples for inorganic chemical analysis. Arsenic and Iron will be tested again in May 2019.

List of Abbreviations

- **(MCL)** Maximum Contaminant Level
- **(MCLG)** Maximum Contaminant Level Goal
- **(AL)** Action Level (triggers treatment or other)
- **(ND)** NonDetectable
- **(NA)** Not applicable
- **(SRL)** State Reporting Level
- **(NTU)** A measure of the clarity of water
- **(PPB)** parts per Billion
- **(PPM)** Parts per million



EPA/State Regulated (Primary) – IOC's

Analytes	Results	Units	MCL	Compliance
Nitrate + Nitrite	ND	ppm	10	Yes
Arsenic	0.0084	Mg/l	.01	Yes

EPA Regulated (Secondary) – IOC's

Analytes	Results	Units	MCL	Compliance
Iron	ND	ppm	.03	Yes

State Regulated – IOC's

Analytes	Results	Units	MCL	Compliance
Sodium	ND	ppm	No MCL	Yes
Hardness	35	ppm	No MCL	Yes
Turbidity	.15	NTU	1.0	Yes

What are VOC's?

Volatile Organic Chemicals (VOC's) are contaminants that may be found in drinking water supplies across the nation. VOC's are those organic chemicals (pesticides, herbicides and other chemicals) that are "readily vaporizable at a relatively low temperature. Some VOC's are products of industrialization and can enter the water supply through various means, such as leakage of storage tanks, spills, or illegal dumping of toxic wastes.

Analytes	Results	Units	MCL	Compliance
TTHM's	3.1	ppb	80	Yes
HAA5'S	<1	ppb	60	Yes

Another concern is Disinfection By-Products like Trihalomethanes (TTHM's). These by-products can enter the water supply as a result of the disinfection process (usually chlorination). In August 2018, the city submitted samples for volatile organic chemical analysis.

What are SOC's?

Synthetic Organic Compounds are chemicals synthesized from carbon and other elements such as hydrogen, nitrogen, or chlorine. These chemicals are manufactured to meet hundreds of needs in our daily lives, ranging from mothballs to hair sprays, solvents and pesticides. The use of these synthetic organic compounds has greatly increased within the past 40 years and some can enter the groundwater. Clearly, it is of primary importance to keep such chemicals from entering our water supply. In September 2017, the City submitted samples for (SOC) testing and results showed that no compounds were detected. This test will be repeated in 2019 and 2022.

Asbestos

A portion of the City's distribution system contains asbestos cement (AC) water mains. Asbestos monitoring is required for utilities with asbestos pipe in the distribution system. In August of 2017 the City submitted samples for asbestos analysis. This test will be repeated in 2026.

Test	Results	Units	MCL	Compliance
Asbestos	<0.111	MFL	7.0	Yes

Monitoring Lead and Copper

The City of North Bend is required to perform lead and copper testing within the system every three years. Sampling and testing was performed in July 2017. Test results indicate that the samples did not exceed the action limits set by the U.S. Environmental Protection Agency. Twenty-four samples were submitted for testing. No samples exceeded the Federal Action level (AL) for either lead or copper. Next testing will occur in 2020. Homes built with copper plumbing and lead solder before 1985 are considered "high risk." Tap water monitoring allows the water system to determine lead and copper concentrations in your drinking water. The city does not add fluoride to the drinking water.

Test	Federal Action Level	Highest Reported Levels in North Bend	Violation
Lead	0.015 ppm	0.0036 ppm	No
Copper	1.3 ppm	0.17 ppm	No

We ask that all consumers help us protect our water quality and to conserve water, one of our most valuable resources. Keep reading this report for Water Saving Tips!

"We forget that the water cycle and the life cycle are one"
~ Jacques Cousteau

Required information from the U.S. Environmental Agency on the Potential for Health Concerns relating to Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the land surface or through the ground it dissolves naturally-occurring minerals and can pick up substances resulting from the presence of animals or human activity.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. A contaminant is defined as any substance in water. Not all substances are harmful. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or from the EPA's Office of Ground Water website at www.epa.gov/OGWDW/



Steps we take to prevent contamination

- CrossConnection Program/Backflow Prevention
- Flushing—all dead end water lines are flushed twice a year
- Well Head Protection Plan in accordance with Comp Plan
- North Bends Reservoirs are cleaned on an alternating annual basis as needed

Who Watches Your Water?

- U.S. Environmental Protection Agency sets national standards for over 100 potential drinking water contaminants under the Safe Drinking Water Act.
- The Washington State Department of Health enforces the USEPA standards.
- The City of North Bend has water samples tested in compliance with all state and federal regulations.
- State Certified laboratories are used to test your water according to standards.

The City of North Bend asks residents to reduce their water usage by 5 gallons per day to meet Department of Health goals.

Here's ways to save outdoors:

- Reduce lawn size (lawns use 40-50% of our summer water).
- Reduce outdoor usage as much as possible.
- Enrich soils with 3-4 inches of compost worked into the top foot of soil prior to planting.
- Dethatch and aerate lawns for better water absorption.
- Clip lawns no shorter than 2 inches.
- Leave the grass clippings on the lawn. They're 90% water and provide nitrogen.
- Water only after 7:00 p.m. or before 10:00 a.m. to avoid excessive loss to evaporation.
- Use soaker hoses or drip systems.
- Adjust sprinklers so you're watering only what grows, not the street or the sidewalk.
- Check hoses and sprinkler systems for leaks and fix them promptly.
- Include a rain sensor and a soil moisture sensor in your automatic sprinkler system.

- Catch rainwater in barrels for thirsty plants.
- Use a broom to clean the driveway or patio, instead
- Wash your car using a bucket of soapy water and use the hose with a shut off nozzle just to rinse.

Ways to Save Indoors:

- Fix leaks promptly - little drips can waste lots of water.
- Install "water displacement devices" in your toilet tank if you have an older model toilet.
- Replace older toilets; newer toilets use only 1.5 gal to flush.
- Replace your showerhead with a low flow model.
- Capture shower warm-up water; use it to water plants, wash the floor or the car.
- Turn off the faucet while brushing teeth or shaving.
- Keep a bottle of drinking water in your refrigerator; running tap water until it's cold enough wastes water.
- Wash only full loads in the dishwasher and washing machine.

Coliform Monitoring Plan for: City of North Bend
A. System Information
Plan Date: March 2020

Water System Name <u>North Bend, City of</u>	County <u>King</u>	System I.D. Number <u>60100A</u>
Name of Plan Preparer <u>Kraig Kramer</u>	Position <u>Lead Water System Operator</u>	Daytime Phone (425) 888-0486 x7655
Sources: DOH Source Number, Source Name, Well Depth, Pumping Capacity	<u>01 – Mt. Si Spring; 1,250 gpm</u> <u>03 – Well (NB-3) APN061; 216 feet; 2,500 gpm</u> <u>02- Sallal (75560) Emergency Intertie</u>	
Storage: List and Describe	<u>I-90 Reservoir – 0.5 MG</u> <u>Steel Reservoir, Constructed 1967</u> <u>Nintendo Reservoir – 2.0 MG</u> <u>Prestressed Concrete, Constructed 1991</u> <u>Forster Woods – 0.75 MG</u> <u>Steel Reservoir, Constructed 1993</u> <u>Total Storage Volume: 3.25 MG</u>	
Treatment: Source Number & Process	<u>Mt. Si Springs - Chlorine gas, minimum CT=6</u> <u>Centennial Well - 12.5% Sodium Hypochlorite.</u>	
Pressure Zones: Number and name	<u>594 Zone</u> <u>710 Zone</u> <u>780 Zone</u>	
Population by Pressure Zone (as of 2020)	<u>594 Zone – 5,270</u> <u>710 Zone – 1,170</u> <u>780 Zone – 351</u> <u>Total – 6,791</u>	
Number of Routine Samples Required Monthly by Regulation:		<u>7</u>
Number of Sample Sites Needed to Represent the Distribution System:		<u>7 +Sources Quarterly</u>
*Request DOH Approval of Triggered Source Monitoring Plan?		Yes <input checked="" type="checkbox"/> No

*If approval is requested a fee will be charged for the review.

B. Laboratory Information

Laboratory Name <u>AmTest Laboratories</u>	Office Phone 425-885-1664 After Hours Phone (425)-770-7037
Address 13600 NE 126th PL Suite C Kirkland, WA 98034	
Hours of Operation <u>Monday – Friday 7 am – 5 pm</u>	

C. Routine, Repeat, and Triggered Source Sample Locations*

Location/Address for <u>Routine</u> Sample Sites	Location/Address for <u>Repeat</u> Sample Sites	Groundwater Sources for Triggered Sample Sites**
X1. 126 E 4th St	1-1. 126 E 4th St	S01, S03
	1-2. 132 E 4th St	S01, S03
	1-3. 112 E 4th St	S01, S03
X2. 485 Maloney Grove Ave	2-1. 485 Maloney Grove Ave	S01, S03
	2-2. 505 Maloney Grove Ave	S01, S03
	2-3. 791 E North Bend Way	S01, S03
X3. Bldg #3 Unit 461A Factory Stores	3-1. Bldg #3 Unit 461A Factory Stores	S01, S03
	3-2. Bldg #3 Unit 421F Factory Stores	S01, S03
	3-3. Bldg #3 Unit 561H Factory Stores	S01, S03
X4. 721 Mt. Si Blvd (Shell)	4-1. 721 Mt. Si Blvd (Shell)	S01, S03
	4-2. 705 SW Mt. Si Blvd (Arbys)	S01, S03
	4-3. 745 SW Mt. Si Blvd (Chevron)	S01, S03
X5. 819 NE 8th St	5-1. 819 NE 8th St	S01, S03
	5-2. 831 NE 8th St	S01, S03
	5-3. 720 NE 8th St	S01, S03
X6. 435 SE 5th ST	6-1. 435 SE 5th St	S01, S03
	6-2. 465 SE 5th St	S01, S03
	6-3. 425 SE 5th St	S01, S03

Location/Address for <u>Routine</u> Sample Sites	Location/Address for <u>Repeat</u> Sample Sites	Groundwater Sources for Triggered Sample Sites**
X7. 441 Main Ave South	7-1. 441 Main Ave S	S01, S03
	7-2. 445 Main Ave N	S01, S03
	7-3. 435 Main Ave N	S01, S03
X8.900 Meadow Drive	8-1. 900 Meadow Drive	S01, S03
	8-2. 451 SE Alder Drive	S01, S03
	8-3. 850 Meadow Drive	S01, S03
X9. 816 NE 5th St	9-1. 816 NE 5th St	S01, S03
	9-2. 808 NE 5th St	S01, S03
	9-3. 824 NE 5th St	S01, S03
X10. 520 North Bend Way	10-1. 520 North Bend Way	S01, S03
	10-2. 530 North Bend Way	S01, S03
	10-3. 468 North Bend Way	S01, S03
X11. 43427 SE 92nd St	11-1. 43427 SE 92nd St	S01, S03
	11-2. 43429 SE 92nd Sr	S01, S03
	11-3. 9540 428th Ave SE	S01, S03
X12. 1230 SW 12th	12-1. 1230 SW 12th	S01, S03
710 Zone	12-2. 1270 SW 12th	S01, S03
	12-3. 1350 SW 12th	S01, S03

Location/Address for Routine Sample Sites	Location/Address for Repeat Sample Sites	Groundwater Sources for Triggered Sample Sites**
X13. 1230 SW 10th	13-1. 1230 SW 10th	S01, S03
710 Zone	13-2. 1240 SW 10th	S01, S03
	13-3. 1210 SW 10th	S01, S03
X14. Building 21 Apt 967, Rock Creek Ridge	14-1. Building 21 Apt 967, Rock Creek Ridge	S01, S03
780 Zone	14-2. Building 25 Apt 958, Rock Creek Ridge	S01, S03
	14-3. Building 24 Apt 942, Rock Creek Ridge	S01, S03
X15. 1031 SE 12th Street	15-1. 1031 SE 12th St	S01, S03
594 Zone	15-2. 1003 SE 12th St	S01, S03
	15-3. 1043 SE 12th St	S01, S03
X16. 1551 SW 12th Ct	16-1. 1551 SW 12th Ct.	S01, S03
780 Zone	16-2. 1477 SW 10th St.	
	16-3. Apt. 1015, Rock Creek Ridge	

**** When you collect the repeats, you must sample every groundwater source that was in use when the original routine sample was collected.**

Important Notes for Sample Collector:

Sample only the source that was active at the time of the positive sample.

D. Reduced Triggered Source Monitoring Justification (add sheets as needed):

The City is not seeking this at this time.

E. Routine Sample Rotation Schedule

Month	Routine Site(s)	Month	Routine Site(s)
January	X01, X02, X07, X12, X13, X14, X15 +Mt Si Springs	July	X01, X02, X07, X12, X13, X14, X15
February	X03, X05, X08, X11, X12, X15, X16 +Centennial Well	August	X03, X05, X08, X11, X12, X15, X16
March	X04, X06, X09, X10, X11, X14, X15	September	X04, X06, X09, X10, X11, X14, X15
April	X01, X02, X07, X12, X13, X14, X15 +Mt Si Springs	October	X01, X02, X07, X12, X13, X14, X15
May	X03, X05, X08, X11, X12, X15, X16 +Centennial Well	November	X03, X05, X08, X11, X12, X15, X16
June	X04, X06, X09, X10, X11, X14, X15	December	X04, X06, X09, X10, X11, X14, X15

F. Standard Operating Procedure

Routine Sampling:

Routine Sampling:

Use clean bottles provided by lab and wear latex gloves. Sample from hose bib. Run water for 1 to 2 minutes before taking a cl2 residual. Fill the sample bottle, but do not overflow. Carefully seal bottle and fill out chain of custody form with address, date, time, and sampler initials, wrap COC around bottle, wrap bottle and COC with rubber band, place sample into cooler with cool-pack, deliver to lab for testing.

Repeat Sampling:

Repeat samples are required upon positive hit of routine sample. If routine sample tests positive, grab repeat samples at original source as well as upstream and downstream sites. Follow sampling procedures identified above for Routine Sampling.

Positive samples during intertie use:

Should a positive coliform test coincide with the emergency use of the Sallal intertie where water is conveyed from Sallal to North Bend, Sallal Water Association must be notified immediately of the positive coliform test and the Sallal's wells must be tested.

Should a positive coliform test coincide with the emergency use use of the Sallal intertie where water is conveyed from North Bend to Sallal's distribution system via a mobile emergency pump, Sallal Water Association must be notified immediately of the positive coliform test.

G. Level 1 and Level 2 Assessment Contact Information

Name Kraig Kramer	Office Phone (425) 888-7655 After Hours Phone (425) 864-0241
Address PO BOX 896 NORTHBEND, WA 98045	Email kkramer@northbendwa.gov
Name Jake Thompson	Office Phone 425-888-7655 After Hours Phone 425-864-0233
Address PO BOX 896 NORTHBEND, WA 98045	Email jthompson@northbendwa.gov

H. *E. coli*-Present Sample Response

Distribution System <i>E. coli</i> Response Checklist				
Background Information	Yes	No	N/A	To Do List
We inform staff members about activities within the distribution system that could affect water quality.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We document all water main breaks, construction & repair activities, and low pressure and outage incidents.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can easily access and review documentation on water main breaks, construction & repair activities, and low pressure and outage incidents.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our Cross-Connection Control Program is up-to-date.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We test all cross-connection control devices annually as required, with easy access to the proper documentation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We routinely inspect all treatment facilities for proper operation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We identified one or more qualified individuals who are able to conduct a Level 2 assessment of our water system.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have procedures in place for disinfecting and flushing the water system if it becomes necessary.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can activate an emergency intertie with an adjacent water system in an emergency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
We have a map of our service area boundaries.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have consumers who may not have access to bottled or boiled water.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is a sufficient supply of bottled water immediately available to our customers who are unable to boil their water.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have identified the contact person at each day care, school, medical facility, food service, and other customers who may have difficulty responding to a Health Advisory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
We have messages prepared and translated into different languages to ensure our consumers will understand them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
We have the capacity to print and distribute the required number of notices in a short time period.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Policy Direction	Yes	No	N/A	To Do List
We have discussed the issue of <i>E. coli</i> -present sample results with our policy makers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If we find <i>E. coli</i> in a routine distribution sample, the policy makers want to wait until repeat test results are available before issuing advice to water system customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(Cont.)				

Distribution System <i>E. coli</i> Response Checklist				
Potential Public Notice Delivery Methods	Yes	No	N/A	To Do List
It is feasible to deliver a notice going door-to-door.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have a list of all of our customers' addresses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have a list of customer telephone numbers or access to a Reverse 9-1-1 system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
We have a list of customer email addresses.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We encourage our customers to remain in contact with us using social media.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have an active website we can quickly update to include important messages.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our customers drive by a single location where we could post an advisory and expect everyone to see it.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We need a news release to supplement our public notification process.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Distribution System <i>E. coli</i> Response Plan
<p>If we have <i>E. coli</i> in our distribution system we will immediately:</p> <ol style="list-style-type: none"> 1. Call DOH. 2. Contact Sallal Water Association if emergency intertie is or has recently been in use. 3. Collect repeat and triggered source samples per Part D. Collect additional investigative samples as necessary. 4. Inspect our major water system facilities, including treatment plants for proper operation. 5. Interview staff to determine whether anything unusual was happening in the water system service area, especially since the previous month's sample(s). 6. Review new construction activities, water main breaks, and pressure outages that may have occurred during the previous month. 7. Review Cross-Connection Control Program status. 8. Discuss whether a Health Advisory is warranted based on the findings of steps 3-6. 9. Increase chlorine dose at both treatment plants to 1.0 mg/L. 10. Flush affected portions of the distribution system. 11. Prepare draft news release and website changes. 12. Contact school district & medical facilities about potential action. 13. Collect investigative samples every 10 to 12 hours until repeat results are known. 14. Issue news release and make website changes if repeats are coliform or <i>E. coli</i> present.

<i>E. coli</i>-Present Triggered Source Sample Response Checklist – All Sources				
Background Information	Yes	No	N/A	To Do List
We review our sanitary survey results and respond to any recommendations affecting the microbial quality of our water supply.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We address any significant deficiencies identified during a sanitary survey. Note: One issue was identified at the Mt Si Springs Source (S01) that we are currently investigating how to address properly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
There are contaminant sources within our Wellhead Protection Area that could affect the microbial quality of our source water, and If yes, we can eliminate them.	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
We routinely inspect our well site(s).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have a good raw water sample tap installed at each source. Note: Centennial Well (S03) does have a raw sample tap. Mt Si Springs Source (S01) does not currently have a tap. However, we are able to quickly obtain raw water samples with a sample stick.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
After we complete work on a source, we disinfect the source, flush, and collect an investigative sample.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Notice	Yes	No	N/A	To Do List
We discussed the requirement for immediate public notice of an <i>E. coli</i> -present source sample result with our water system's governing body (board of directors or commissioners) and received direction from them on our response plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
We discussed the requirement for immediate public notice of an <i>E. coli</i> -present source sample result with our wholesale customers and encouraged them to develop a response plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
We have prepared templates and a communications plan that will help us quickly distribute our messages.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>E. coli</i>-Present Triggered Source Sample Response Checklist – Source S01				
Alternate Sources	Yes	No	N/A	To Do List
We can stop using this source and still provide reliable water service to our customers.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have an emergency intertie with a neighboring water system that we can use until corrective action is complete (perhaps for several months).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can provide bottled water to all or part of the distribution system for an indefinite period.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can quickly replace our existing source of supply with a more protected new source.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporary Treatment	Yes	No	N/A	To Do List
This source is continuously chlorinated, and our existing facilities can provide 4-log virus treatment (CT = 6) before the first customer. If yes, at what concentration? 0.5 mg/L	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can quickly introduce chlorine into the water system and take advantage of the existing contact time to provide 4-log virus treatment to a large portion of the distribution system.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can reduce the production capacity of our pumps or alter the configuration of our storage quantities (operational storage) to increase the amount of time the water stays in the system before the first customer to achieve CT = 6.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can alter the demand for drinking water (maximum day or peak hour) through conservation messages to increase the time the water is in the system prior to the first customer in order to achieve 4-log virus treatment with chlorine.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*NOTE: If your system has multiple sources, you may want to complete a separate checklist for each source.

<i>E. coli</i>-Present Triggered Source Sample Response Checklist – Source S03				
Alternate Sources	Yes	No	N/A	To Do List
We can stop using this source and still provide reliable water service to our customers.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have an emergency intertie with a neighboring water system that we can use until corrective action is complete (perhaps for several months).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can provide bottled water to all or part of the distribution system for an indefinite period.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can quickly replace our existing source of supply with a more protected new source.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Temporary Treatment	Yes	No	N/A	To Do List
This source is continuously chlorinated, and our existing facilities can provide 4-log virus treatment (CT = 6) before the first customer. If yes, at what concentration? 0.5 mg/L	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can quickly introduce chlorine into the water system and take advantage of the existing contact time to provide 4-log virus treatment to a large portion of the distribution system.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can reduce the production capacity of our pumps or alter the configuration of our storage quantities (operational storage) to increase the amount of time the water stays in the system before the first customer to achieve CT = 6.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We can alter the demand for drinking water (maximum day or peak hour) through conservation messages to increase the time the water is in the system prior to the first customer in order to achieve 4-log virus treatment with chlorine.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*NOTE: If your system has multiple sources, you may want to complete a separate checklist for each source.

E. coli-Present Triggered Source Sample Response Plan – Source S01

If we have *E. coli* in Source S01 water we will immediately:

1. Call DOH.
2. Shut down source S01.
3. Distribute required notice.
4. Increase chlorine dose to achieve at least 1.0 mg/L at the entry point to the distribution system.
5. Begin compliance monitoring of disinfection treatment at S01.
6. Contact DOH to receive acknowledgment that the treatment plant provides 4-log virus treatment.

E. coli-Present Triggered Source Sample Response Plan – Source S03

If we have *E. coli* in Source S03 water we will immediately:

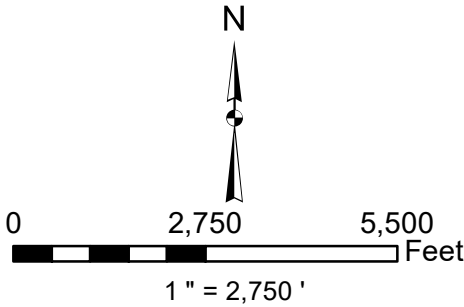
1. Call DOH.
2. Shut down source S03.
3. Distribute required notice.
4. Increase chlorine dose to achieve at least 1.0 mg/L at the entry point to the distribution system.
5. Begin compliance monitoring of disinfection treatment at S03.
6. In concert with DOH, begin work on corrective action plan to provide 4-log virus treatment.

I. System Map

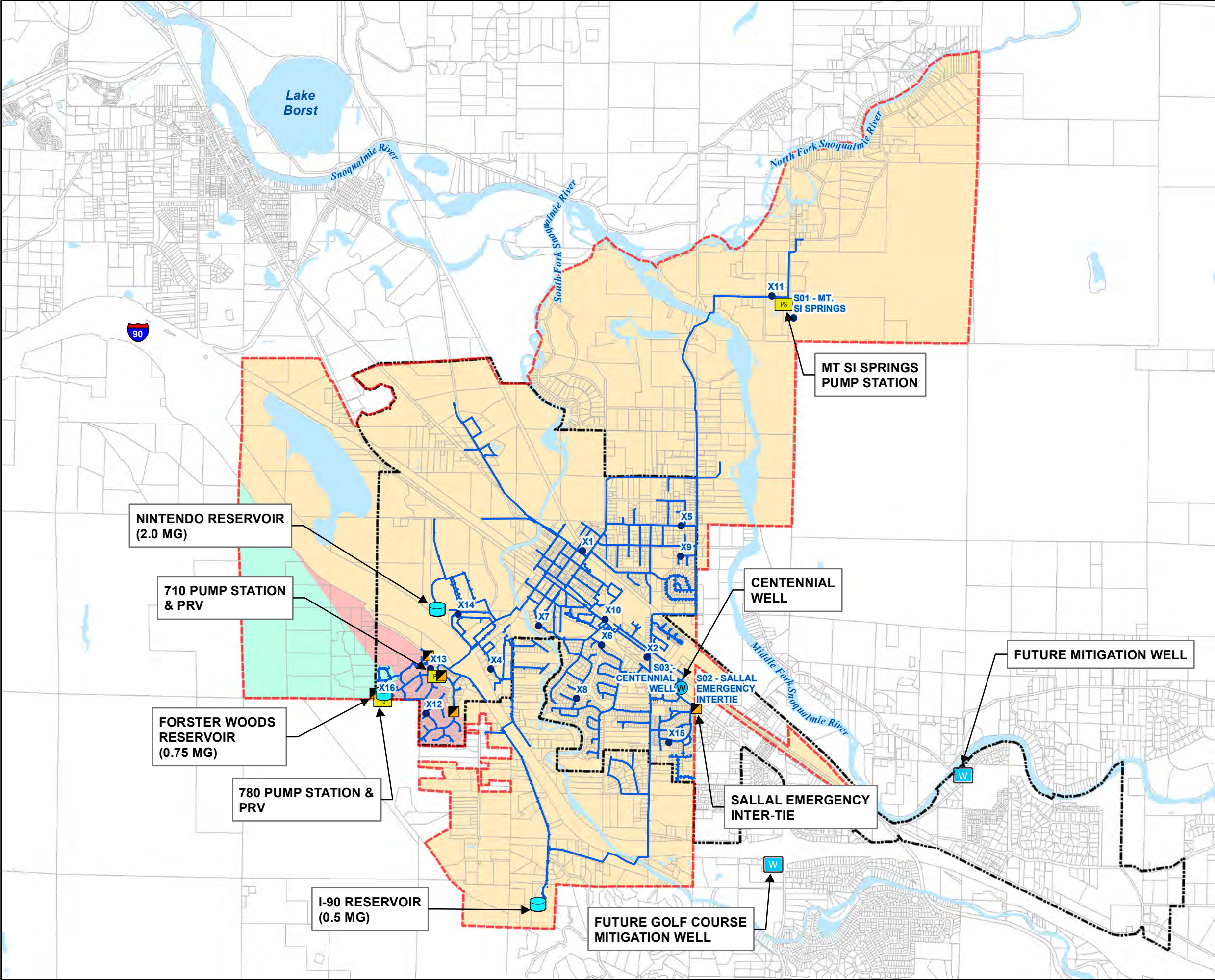
Legend

- CENTENNIAL WELL
- Mitigation Well
- PRV
- PUMP STATION
- RESERVOIR
- COLIFORM MONITORING LOCATION
- WATER MAIN
- RETAIL SERVICE AREA
- NORTH BEND CITY LIMITS
- 710 ZONE (710 FT HGL)
- 780 ZONE (780 FT HGL)
- 594 ZONE (594 FT HGL)

Source: King County &
City of North Bend GIS
Data; Aerial



CITY OF NORTH BEND
COLIFORM MONITORING MAP



STAGE 2 DISINFECTION BYPRODUCTS MONITORING PLAN

SYSTEM INFORMATION:

System Name: City of North Bend
 PWSID # 60100A
 Population: 6,791
 Sources: Surface & Groundwater
 IDSE: No IDSE Required
 Schedule: Schedule 4
 Date: July 2020
 Operator: Kraig Kramer

MONITORING REQUIREMENTS:

Required Sampling

1 Dual Sample Set per Year is taken at the location and time indicated in Table 1. Locations are also shown on the attached Disinfection byproducts Monitoring Figure.

TABLE 1
DBP Monitoring Sample Site & Schedule

Containment	Stage 2 Compliant ID Site	Schedule
Highest TTHM	X1 - Bldg 21, Apt 967, Rock Creek Ridge	August (Yearly)
Highest HAA5	X2 - 10808 428 th Ave SE	August (Yearly)

Determining Compliance for TTHM and HAA5













The City's water system is required to monitor once a year. Compliance will be achieved if the TTHM and the HAA4 at the respective monitoring locations is less than or equal to 0.080 mg/L for TTHM and less than or equal to 0.060 mg/L for HAA5. If any sample exceed the MCL, monitoring will be increased to sampling every 90 days at both locations. An MCL violation will have occurred if the Location Running Average (LRAA) exceed either MCL.

Disinfectant Monitoring

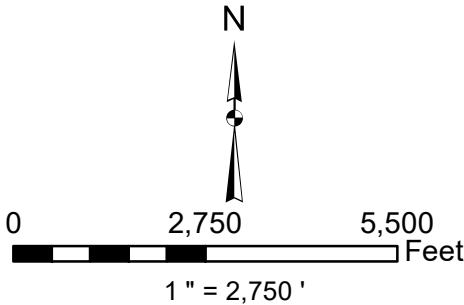
Chlorine residuals must be measured at the same time and place as the routine coliform samples. The MRDL for chlorine and chloramines is 4.0 mg/L as Cl₂.

Compliance is based on the running annual average of 12 consecutive months. Daily residual measurements are not included in the compliance calculations.

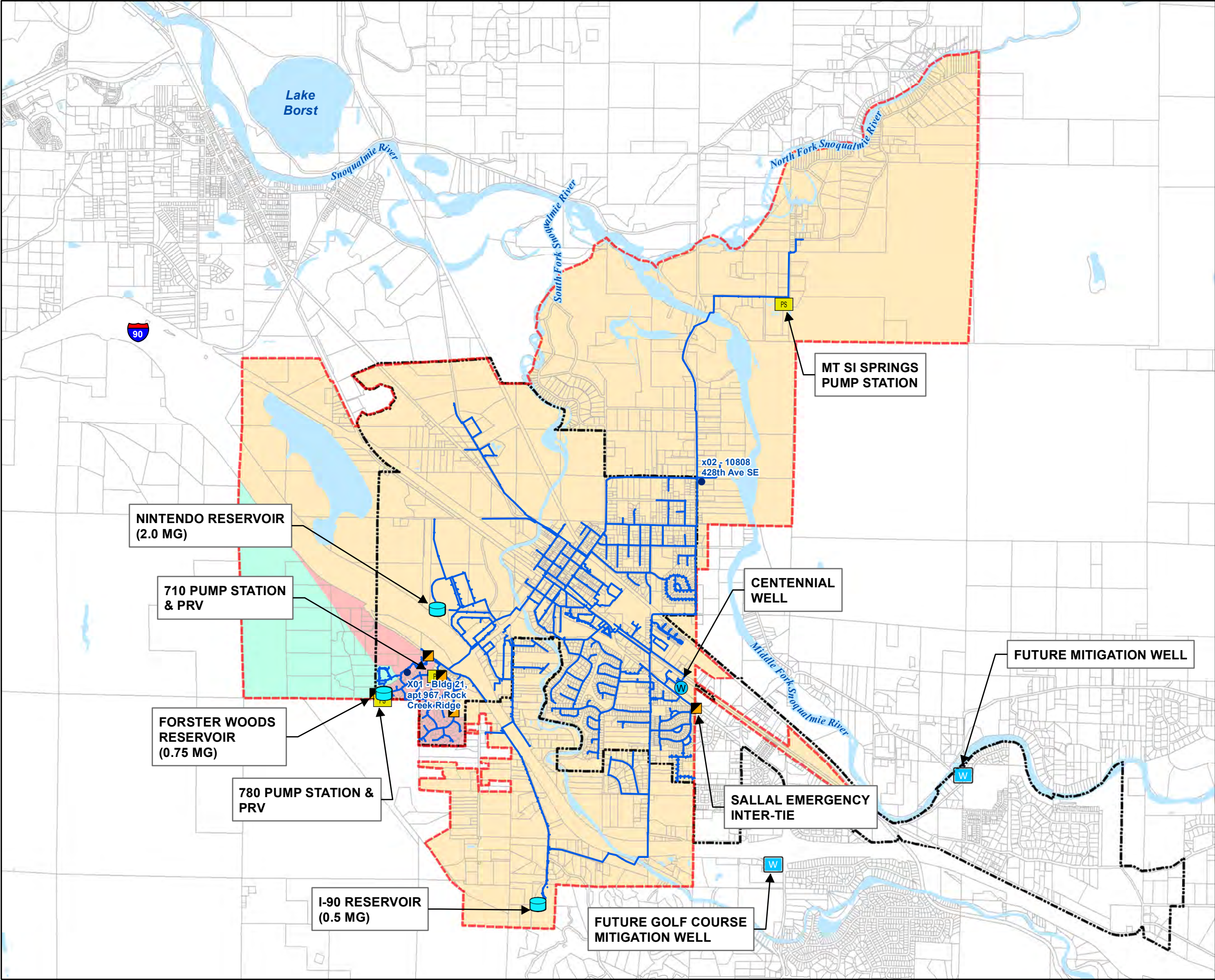
Legend

-  CENTENNIAL WELL
-  Mitigation Well
-  PRV
-  PUMP STATION
-  RESERVOIR
-  DISINFECTION MONITORING LOCATION
-  WATER MAIN
-  RETAIL SERVICE
-  NORTH BEND CITY LIMITS
-  710 ZONE (710 FT HGL)
-  780 ZONE (780 FT HGL)
-  594 ZONE (594 FT HGL)

Source: King County &
City of North Bend GIS
Data; Aerial



CITY OF NORTH BEND
DISINFECTION BYPRODUCTS
MONITORING PLAN



APPENDIX I

WATER USE EFFICIENCY DOCUMENTS

RESOLUTION 1949

A RESOLUTION OF THE CITY OF NORTH BEND, WASHINGTON, ADOPTING WATER USE EFFICIENCY GOALS

WHEREAS, the Washington State Legislature passed Engrossed Second Substitute House Bill 1338 in 2003, better known as the Municipal Water Law, to address the increasing demand on our state's water resources; and

WHEREAS, the law established that all municipal water suppliers must use water more efficiently in exchange for water right certainty and flexibility to help them meet future demands, and directing the Department of Health to adopt an enforceable Water Use Efficiency Program, which became effective on January 22, 2007; and

WHEREAS, the Water Use Efficiency Program states "you must set your own goals through a public process [WAC 246-290-830(4)(a)]", the deadline for the first goal being January 22, 2008 for municipal water suppliers with 1,000 or more connections; and

WHEREAS, the most recent goals were adopted via Resolution 1688 on August 4, 2015; and

WHEREAS, the Water Use Efficiency Program states that goals must be evaluated and reestablished at least every six years [WAC 246-290-830(7)]; and

WHEREAS, goals may consist of demand side (customer) and production side goals; and

WHEREAS, a public hearing was conducted on September 1, 2020 to obtain public comment on these water use efficiency goals; and

WHEREAS, on August 4, 2020, the North Bend City Council adopted a 5 year Water System Plan containing water efficiency goals (WSP); and

WHEREAS, on June 16, 2020, the North Bend City Council adopted a Water Conservation Ordinance in order to reduce water demand (WCO); and

WHEREAS, on June 2, 2020, the North Bend City Council adopted Resolution No. 1940, adopted a Distribution System Leakage Plan in order to reduce system leakage to 10%; and

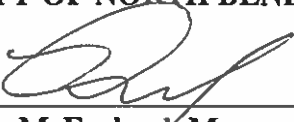
WHEREAS, the North Bend City Council wishes to adopt water efficiency goals consistent with it WSP and WCO;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF NORTH BEND, WASHINGTON, DOES RESOLVE AS FOLLOWS:

Section 1. The City's demand side goal of reducing average day demand per equivalent residential unit by 0.75 percent per year over the next ten years and the City's production side goal of reducing distribution system leakage to ten percent by the year 2026 are hereby adopted.


PASSED BY THE CITY COUNCIL OF THE CITY OF NORTH BEND, WASHINGTON, AT A REGULAR MEETING THEREOF, THIS 1ST DAY OF SEPTEMBER, 2020.

CITY OF NORTH BEND:



Rob McFarland, Mayor


APPROVED AS TO FORM:



Michael R. Kenyon, City Attorney

ATTEST/AUTHENTICATED:

Effective: September 1, 2020
Posted: September 2, 2020



Susie Oppedal, City Clerk



City Council Agenda Bill

SUBJECT:	Agenda Date: September 1, 2020	AB20-117
Public Hearing and Resolution Adopting Water Use Efficiency Goals	Department/Committee/Individual	
	Mayor Rob McFarland	
	City Administrator – David Miller	
	City Attorney – Mike Kenyon	
	City Clerk – Susie Oppedal	
	Community & Economic Development – David Miller	
	Finance – Dawn Masko	
Cost Impact: N/A	Public Works – Mark Rigos, P.E.	X
Fund Source: N/A		
Timeline: Immediate		

Attachments: Resolution, Public Notice

SUMMARY STATEMENT:

Requirements

Per state law, water purveyors that serve more than 1,000 connections are required to establish and monitor Water Use Efficiency (WUE) goals for their customers. These goals are required to be established at least every 6 years through a public hearing process.

Previous Customer Goal

The most recent customer (demand side) goals set by the City were adopted via Resolution 1688 in August 2015. The goal was to reduce per-capita water use for single family accounts from 57 gallons per day to 52 gallons per day in six years. In June 2020, per-capita water use for single family accounts was calculated to be 52.9 gallons per day, nearly reaching the goal adopted in 2015.

WUE Measures Currently Implemented

Two new goals are proposed for this goal setting period. Goal 1 is a demand side (customer) goal of reducing average day demand by 0.75% per Equivalent Residential Unit (ERU) each year for the next 10 years. Goal 2 is a production goal of reducing distribution system leakage (DSL) to 10% by 2026.

WUE Measures That Have Been Evaluated

Many water use efficiency measures were evaluated including meter calibration, leak detection, customer education, conservation rate structures, reclaimed water, and more. A detailed discussion of each of the measures evaluated can be found in Chapter 5 of the City's 2020 Water System Plan.

Education Campaign

The City educates their customers by including WUE tips in the annual consumer confidence report as well as sending several mailers out with utility bills each year. In 2020, the City Council enacted a Water Conservation Ordinance that is heavily weighted toward customer education, with penalties for multiple violations.

Projected Water Savings

The City projects water savings from goal 1 of 130 million gallons over the 10-year period, with increasing returns each year the goal is met. Goal 2 savings are projected to save 202 million gallons over a 10-year period for a total savings of 332 million gallons in 10 years if both goals are met.

Program Evaluation

Staff will evaluate the success of the implemented goals yearly in preparation of the annual WUE Report. The previous year's water use will be calculated, and the result compared to the goal. If staff feels that progress is dwindling, we will inform customers by adding that information to the annual consumer confidence report.

City Council Agenda Bill

Distribution System Leakage

The City evaluates DSL on an annual basis in preparation for submitting the WUE Report. The Washington State Department of Health (DOH) has set a goal of 10% maximum unaccounted for water in the previous three years. The City's current 3-year rolling average DSL is 22.4%, far more than the 10% leakage standard set by the DOH. The City is actively working to reduce distribution system leakage by replacing aging asbestos cement (AC) pipes with more robust ductile iron pipes. Since 2014 the City has replaced approximately 11,000 linear feet of aging pipe. The Capital Improvement Plan presented in the 2020 Water System Plan continues this work with several hundred thousand dollars budgeted each year for AC main replacement.

Additionally, in 2019 the City Council authorized a customer meter replacement program in which aging customer meters will be replaced with new meters that have radio read technology. Many of the meters in the City at that time were approaching 20 years old and are suspected of under-reporting the amount of water flowing through them.

Water Supply Characteristics/Demand Forecasts

The water supply characteristics and demand forecasts are explained in the City's Water System Plan, written in 2020 by Gray and Osborne. A copy of this plan is available for inspection at City Hall located at 920 SE Cedar Falls Way. Alternatively, the Plan can also be found on the City's website on the [Sewer/Water subpage](#) located under Public Works.

Staff Recommendation

Staff recommends adopting the proposed demand-side WUE goal of reducing average day demand per ERU by 0.75% annually over the next 10 years as well as the production goal of reducing DSL to 10% by the year 2026.

APPLICABLE BRAND GUIDELINES: Consistent delivery of quality basic services including transportation and traffic management.

COMMITTEE REVIEW AND RECOMMENDATION: This item was discussed at the August 25, 2020 Transportation and Public Work Committee meeting and was recommended for approval and placement on General Discussion.

RECOMMENDED ACTION: MOTION to approve AB20-117, a resolution adopting Water Use Efficiency Goals.

RECORD OF COUNCIL ACTION

<i>Meeting Date</i>	<i>Action</i>	<i>Vote</i>
September 1, 2020	Passed Resolution 1949	7-0



King County

Water Reclamation Evaluation Checklist For Systems with 1,000 or more Connections

The County and State recognize that changing conditions could initiate a need to respond in new ways to future water quality standards, wastewater discharge requirements, take advantage of advances in treatment technologies and/or allow our region to be positioned to respond to changes associated with climate change and population growth.

In 2003, Chapter 90.46 of the Revised Code of Washington (RCW) was amended to require public water systems serving 1,000 or more connections to evaluate opportunities for reclaimed water when completing their water system plans. Please use this checklist to meet King County consistency requirements in responding to this legislation.

Water System Name: City of North bend
Date: February 28, 2020
PWS ID# 60100A
Contact: Don Deberg, (425) 888-7652

Please use this checklist, including the inventory template, to ensure that your water system plan includes sufficient information about opportunities for reclaimed water and your system's efforts to develop those opportunities. If a question is not applicable or the information is unavailable, then answer, "unknown" or "n/a." King County will consider the checklist completed if each answer is filled in with the best available information, even if the utility states that it is not aware of any reclaimed water opportunities within its service area.

1. Identifying Potential Future Demand for Reclaimed Water: King County maintains a database and map of potential reclaimed water users for evaluating future projects. Please use the template below, or similar table, to provide information to assist King County in further researching these potential uses.

- **Large Utility Water Users** (choose one):

- ☒ Attached is an inventory of twenty large (above 20,000 gallons/month on average), non single-family residential, water users served by our utility that have a potential for reclaimed water use, or
 - ☐ Attached is an inventory of our utility's top twenty water users, or
 - ☐ The information requested is unknown or not available.
- Additional Comments: Top 14

- **Large Self Suppliers** (choose one):

- ☐ Attached is an inventory of large, self-supplied water users within our water utility's service boundaries - especially those near wastewater treatment plants, mainlines, outfalls, and pump stations or similar reclaimed water facilities), or
 - ☒ The information requested is unknown or not available.
- Additional Comments: _____

- **Other** (choose one):

- ☐ Attached is an inventory of other water users (such as those that are clustered near one another and could be served by a single system) that may be likely candidates for reclaimed water use, or
 - ☒ The information requested is unknown or not available.
- Additional Comments: _____

2. **Environmental Commitment:** Are you a city/town, or providing water service to a city/town, that has made commitments within resource management plans, salmon recovery plans, or other environmental initiatives for which there is a potential opportunity for using reclaimed water to assist in meeting commitments? (choose one)

☐ Yes, here are plans that have potential for reclaimed water use in our service area to meet the above commitments:

☒ The information requested is unknown, not available.

Additional Comments: _____

3. **Identifying Areas of Potential Use of Reclaimed Water for Environmental Benefit:**

Below are **examples** of uses of reclaimed water **that comply with State, Federal and other reclaimed water environmental, health and safety standards**. All of these uses are currently in effect somewhere in Washington State. To the best of your knowledge, are any of these potential uses for reclaimed water applicable to your area?

River Augmentation (choose one):

☒ Yes, our water rights are limited by instream flows. For more information, King County may contact: Yes, the City's well water right (G1-26617(A)P) is limited by instream flows in the Snoqualmie River unless mitigated. The City mitigates for these flows with its WWTP return flows and a wholesale mitigation source.

☐ The information requested is unknown, or not available.
Additional Comments: _____

Groundwater Recharge (choose one):

☐ Yes, we withdraw water from an aquifer that is in a groundwater management area, or from a declining aquifer, where water levels may need to be replenished or to maintain aquifer storage. For more information, King County may contact: _____

☒ The information requested is unknown, or not available.

Additional Comments: Any use of reclaimed water for purposes other than river augmentation, would negatively impact the City's ability to provide mitigation water

Water Rights Mitigation (choose one):

☐ Yes, our area is pursuing, or planning to pursue, new or additional water rights, and there may be an opportunity to use reclaimed water for mitigation of those new water rights. For more information, King County may contact: _____

☐ The information requested is unknown, or not available.

Additional Comments: Any use of reclaimed water for purposes other than river augmentation, would negatively impact the City's ability to provide mitigation water

Potential Areas of Environmental Need (choose one):

☐ Yes, parts of our service area include potential environmental enhancement locations, such as wetlands enhancement, aquifer recharge, stream flow augmentation, that might be candidates for reclaimed water use. For more information, King County may contact: _____

☐ The information requested is unknown, or not available.

Additional Comments: Any use of reclaimed water for purposes other than river augmentation, would negatively impact the City's ability to provide mitigation water

4. **Local Reclaimed Water Legislation:** If water reclamation is mandated for this water system through local government agreement, contract, local regulations, ordinances, or other mechanisms, please provide a copy of the governing mechanism (choose one).

☐ Yes, local legislation exists in our area in support of reclaimed water use. The following relevant legislation is attached (please list titles of documents):

☒ No water reclamation legislation exists, or is known to exist, at a local level in our service area.

5. **Coordination with Local Wastewater Utility:** Include a brief description of your interactions with any wastewater or reclaimed water utility (King County or other) adjacent to your service area to evaluate any potential opportunities to develop reclaimed water (choose one).

☐ Describe if applicable:

☒ None. Additional Comments: Any use of reclaimed water for purposes other than river augmentation would negatively impact the City's ability to provide mitigation water

**Template for
Inventory of Water Users and Identification of Potential Reclaimed Water Users**

Site Owner or Site Name	Site Address (for general mapping purposes)	Estimated Annual Water Use	Water uses not requiring potable water ¹	Is this a Potential Reclaimed Water Customer?
QFC	439 E Second St	2.21 MG		Any use of reclaimed
Safeway Inc.	460 SW Mt Si Blvd	1.76 MG		water for purposes
Les Schwab	610 E North Bend Way	1.55 MG		other than river
Si View Apartments	424 Healy Ave S	1.54 MG		augmentation would
Arby's Restaurant Group	705 SW Mt Si Blvd	1.46 MG		negatively impact
Lakeshore Corporation	226 Cedar Ave S	1.35 MG		the City's ability to
Red Oak	650 E North Bend Way	1.30 MG		provide mitigation
Sno Ridge Apts	401 Stow Ave S	1.28 MG		water
Mt Si Chevron	745 SW Mt Si Blvd	1.27 MG		
North Bend Bar & Grill	145 E North Bend Way	1.00 MG		
Alpine Water Assoc.	13134 409th Ave SE	1.00 MG		
Suhrbier Company	316 Cedar Ave S	0.90 MG		
Towne Mobile Park	336 Bendigo Blvd N	0.87 MG		
Cascade Park Apts	440 Main Ave S	0.83 MG		

¹ See Washington State Reclamation and Reuse Standards, September 1997, Section 1, Articles 1-5 for allowable uses of reclaimed water.

<http://www.ecy.wa.gov/PROGRAMS/WQ/reclaim/standards.html>

Water Conservation

Attachment A

The easiest and most effective way to conserve thousands of gallons of water around your home is to reduce the water you use on your landscape.

Tips to Save Water Outdoors

- Dethatch and aerate lawns for better water absorption. Clip lawns no shorter than 2 inches.
- Leave the grass clippings on the lawn. They're 90% water and provide nitrogen.
- Water only after 7:00 p.m. or before 10:00 a.m. to avoid excessive loss to evaporation.
- Use soaker hoses or drip systems.
- Adjust sprinklers so you are watering only what grows, not the street or the sidewalk.
- Check hoses and sprinkler systems for leaks and fix them promptly.
- Include a rain sensor and a soil moisture sensor in your automatic sprinkler system.
- Use a broom to clean the driveway or patio, instead of the hose or power washer.
- Reduce the size of your lawn.
- Consider drought-tolerant plants to manage summer dryness.

Conserving water not only protects this finite resource, but also saves energy and money.

For more water conservation tips, including ways to save indoors, visit northbendwa.gov





The City of North Bend's goal is to reduce each person's daily water consumption by 10 gallons within the next five years!

STOP WATER WASTE

Why should I reduce my water consumption?

- Billing for your water use is tiered. So the more you use, the higher the price per gallon used becomes.
- Your sewer bill is based on water use as well, so the sewer bill goes up alongside the water bill

How you can help conserve water:

Your monthly historical usage is included in your monthly bill. Make it a personal goal to use less water than you did last year by using the water saving tips that follow.

Waste Water Adds Up: Drops Turn Into Gallons		
Count the number of drips in 30 seconds to see how many gallons are wasted		
	1 Day	1 Year
5 drops	0.8	292
10 drops	1.6	584
15 drops	2.4	876
20 drops	3.2	1168
25 drops	4	1460
30 drops	4.8	1752

Eliminating Waste Makes Sense

Public water systems are the second largest water user in the state. They use about 18% annually of the total amount of freshwater withdrawn from surface and groundwater sources. By comparison, agriculture uses about 60% of the state's water every year, while industry and hydropower use about 8%.

A lot of hard work goes into providing the water that comes out of your tap every day. When the Department of Health adopted new water efficiency regulations in 2007, many water systems took notice and began to rethink just how efficient they can be. Now, more than ever, they are taking action to find and fix leaks in their water distribution system, thereby eliminating waste.



Stop throwing your money down the drain!

Water Saving Tips

Ways to Save Indoors

- Fix leaks promptly - little drips can waste lots of water. Install "water displacement devices" in your toilet tank if you have an older model toilet.
- Replace older toilets; newer toilets use only 1.5 gal to flush.
- Replace your showerhead with a low flow model.
- Capture shower warm-up water; use it to water plants, wash the floor or the car.
- Turn off the faucet while brushing teeth or shaving.
- Keep a bottle of drinking water in your refrigerator. Running tap water until it's cold enough wastes water.
- Wash only full loads in the dishwasher and washing machine

For More Information:
North Bend Public Works
 1155 E North Bend Way
 P.O. Box 896
 North Bend, WA 98045
 (425) 888 - 0486
www.northbendwa.gov

Ways to Save Outdoors

- Reduce lawn size (lawns use 40-50% of our summer water).
- Enrich soils with 3-4 inches of compost worked into the top foot of soil prior to planting
- Dethatch and aerate lawns for better water absorption. Clip lawns no shorter than 2 inches
- Leave the grass clippings on the lawn. They're 90% water and provide nitrogen.
- Use soaker hoses or drip systems.
- Adjust sprinklers so you're watering only what grows, not the street or the sidewalk.
- Check hoses and sprinkler systems for leaks and fix them promptly.
- Include a rain sensor and a soil moisture sensor in your automatic sprinkler system.
- Catch rainwater in barrels for thirsty plants.
- Use a broom to clean the driveway or patio, instead of the hose and precious water
- Wash your car using a bucket of soapy water. Use a hose with a shut off nozzle just to rinse.



October 25, 2018

Dear Resident,

Please be advised that as the result of a recent water use survey, your property has been identified as one of the largest water users of the North Bend Water Utility's approximately 2,000 customers. The City of North Bend offers free leak detection near the meters and we would suggest working with you to determine if your unusually high use is related to a leak. We have also enclosed information about water conservation which we are asking you to read and share with your household members in order to reduce your water use and costs to a more typical range. For example, if you have an irrigation system, typically in early September is a good time to turn the system off as the Fall rains water lawns and gardens naturally. Additionally, there is less sunlight during the day.

By working together to reduce water usage, you are helping the city maintain affordable water rates for all users and for yourself too. If you have any questions or concerns, please contact Carrie Smith at the public Works Department (425) 888-7651, or Kraig Kramer, Lead Water Operator (425) 888-7655. Thank you for your kind attention.

Sincerely,

A handwritten signature in blue ink, appearing to read "Don DeBerg".

Don DeBerg, P.E.
City Engineer

APPENDIX J

NORTH BEND MITIGATION INCIDENT REPORT



To: Ria Berns – Section Manager *Ecology*; Jay Cook, LHG – Technical Unit Supervisor *Ecology*; Kellie Gillingham – Water Resources *Ecology*; Anne Savery – *Tulalip Tribe*; Matthew Baerwalde – *Snoqualmie Tribe*

From: Donald DeBerg, P.E. – City Engineer *North Bend*

cc: Kenneth Hearing – Mayor *North Bend*; Mark Rigos, P.E. – Interim City Administrator *North Bend*; Tom Mohr, P.E. – Acting Public Works Director *North Bend*; David Miller, AICP – Community and Economic Development Director *North Bend*; Eileen Keiffer – City Attorney *Kenyon Disend, PLLC*; Chris Cote – SCADA Supervisor *North Bend*; Kraig Kramer – Lead Water Operator *North Bend*; Nicole DeNovio, PhD, LHG – Senior Consultant/Associate *Golder Associates*

Date: August 22, 2019

Re: Event Report for Metering Error Between Dates of July 2, 2019 and August 15, 2019

I. Event Report Summary

The City of North Bend (City) identified a mechanical error on August 15, 2019. This mechanical error led to under reporting of water pumped from the Centennial Well which, in turn, caused under mitigation between the periods of July 2, 2019, and August 15, 2019. The City had sufficient mitigation water available to provide the mitigation water required by the City's water right permit and the under mitigation was solely the result of an accidental mechanical error. We took immediate action to remedy the issue and provided the full amount of compensatory mitigation by 8AM on August 21, 2019. We are committed to complying with the water right. The following is a more detailed report of the event and the immediate action taken by the City staff to remedy the error upon its discovery.

II. Description of Problem

In 2019 the City found that the flow meter at the Centennial Well (Well NB-3) was reading approximately 5% lower than actual volume flowing through the meter. In an effort to correct this discrepancy and comply with metering requirements, the City procured a new flow meter and requested bids from contractors on the MRSC Small Works Roster to install the new meter. Having received no bids, City staff decided to perform the work in-house. The new flow meter was installed on July 2, 2019. We have since discovered that in the course of installing the new meter, two of the four signal cables were inadvertently landed on the incorrect terminals. The terminals on the flow meter head are numbered 6, 5, 7, 8, 4, 37, 30. The cable that is supposed to land on terminal 6 was actually placed in terminal 5 and the cable that is supposed to land on terminal 5 was actually placed in terminal 6 (see **Figure 1**). This resulted in the flow meter only recording 50% of the flow that was passing through it. Following best practices, immediately following the installation, staff performed a self-diagnosis on the flow meter and the meter reported no problems. This was performed several times in the following

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www.northbendwa.gov

weeks with no reported issues. The self-diagnosis is a program in which a computer is connected to the meter and the computer performs a diagnostic check to ensure the meter is functioning correctly. Staff discovered the landing issue on August 15, 2019 and immediately corrected the wiring discrepancy, prior to pumping any water from the well on that day. As such, the volume reported by the flow meter on August 15, 2019 is correct. This error led to 11 missed mitigation days and 29 insufficient mitigation days between the dates of July 3, 2019 and August 15, 2019, inclusive. See **Table 1** below for a full accounting of the error.

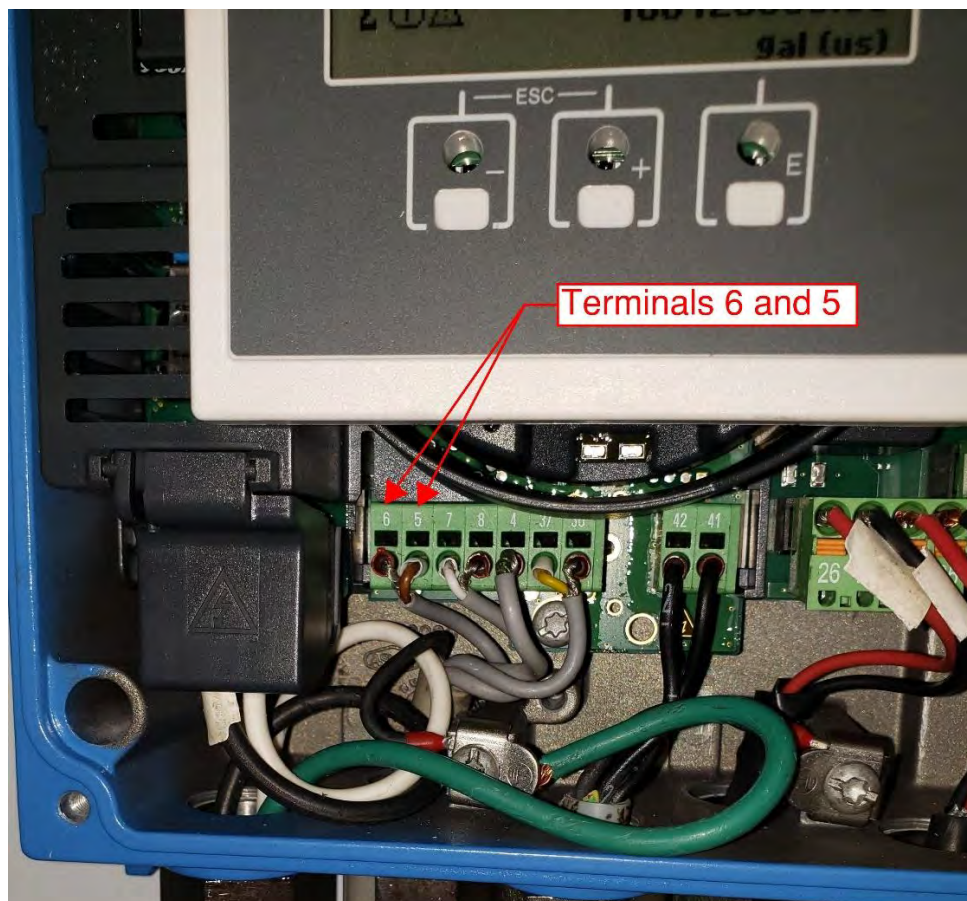


Figure 1. Flow meter head noting wires that were landed incorrectly.

III. Actions Taken to Correct Problem

The shortfall for August 15, 2019 was calculated prior to 8 AM on August 16, 2019 by using the backup spreadsheet method and was added to the August 16 mitigation volume. Mitigation flows for August 16 were adjusted accordingly at 8:00 AM to make up that shortfall, in accordance with the water rights permit for the well. This allowed City staff time to assess the river flows and capacity of the Hobo Springs mitigation system before implementing further actions. After determining the capacity of Boxley Creek was able to accept the flow and verifying that the change in flow to the South Fork of the Snoqualmie River was unlikely to cause safety concerns, at 2:30 PM on August 16, 2019, both mitigation valves were fully opened to allow mitigation water to flow at its maximum rate. This was done to initiate making up of the total shortfall accrued during the six-week metering error. Both valves were

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left fully opened for the remainder of August 16, 2019 through approximately 2:00 PM August 20, 2019 when staff had finalized their calculations and found that the shortfall would be made up by 8:00 AM August 21, 2019. Additional inspections were performed at the Boxley Creek outfall and Hobo Springs Collection box to ensure all mitigation infrastructure was performing as expected.

On August 16, 2019, City staff used the backup spreadsheet method of recalculating the mitigation requirements for every day between July 2, 2019 and August 16, 2019, inclusive. The mitigation requirements calculated by the backup spreadsheets was then transferred to a separate spreadsheet which was used to summarize the information and to calculate the previous 365 day volume pumped from the well and cumulative mitigation shortfall for the period. Until the regularly used mitigation database is updated with corrected information, staff will continue to use this method to calculate daily mitigation requirements.

City staff began sourcing pumps and pipes for use of the Cascade Golf Course water right on August 17, 2019. This continued through August 19, 2019 when all necessary items were secured. Pumps and some piping are owned by the City and more piping was secured from R&R Rentals and the City of Snoqualmie.

On August 18, 2019, City staff emailed Ecology staff with a request to use the City's recently acquired Cascade Golf Course water right (Certificate #CG1-00142C) as a temporary mitigation source to supplement Hobo Springs. Had this source been available immediately, the shortfall could have been made up approximately 0.5 to 1.0 days sooner. This would have required permission to lay pipe across a private property to the south of the former golf course property and adjacent to the South Fork of the Snoqualmie River to supply this water to the river. On August 19, 2019, staff were able to contact the property owner. The property owner requested a formal agreement from the City, which would have likely taken over a week to develop and execute. Because the shortfall was projected to be resolved by August 21, 2019, and permission from the owner would have come after that date, this idea was abandoned.

On August 19, 2019, the City hired a third party to verify that the flow meter is reading correctly. This was done by placing a clamp-on ultrasonic flow meter just downstream of the City's permanently installed magnetic flow meter and comparing the two flow rates. The clamp on meter reported a reading of 1,070 gallons per minute and the permanent meter reported a reading of 1,085 gallons per minute at the same time for an error of 1.4%.

August 20, 2019 consisted of staff thoroughly reviewing the calculations and correcting any errors made in previous calculations. Ultimately, a total mitigation shortfall of approximately 6.282 million gallons was calculated for August 15, 2019, not counting the August 16, 2019 daily mitigation requirement and prior to any action being taken to make up the shortfalls. Initial emails to Ecology stated the shortfall was approximately 7 million gallons, including the daily mitigation requirement for August 16, 2019. Additionally, it was calculated that the entire shortfall would be made up prior to 8:00 AM on August 21, 2019, the time at which mitigation calculations are normally run. Upon making this determination, at 2:00 PM, staff calculated that a mitigation flow rate of approximately 1,095 gallons per minute would be adequate to meet current day mitigation requirements as well as finish correcting the shortfall. In an attempt to satisfy the requirement in the water right that mitigation water is delivered uniformly over

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the course of the “mitigation day”, the valves were adjusted to achieve a target flow of 1,115 gallons per minute for the remainder of the day. The shortfall was made up by 8:00 AM August 21, 2019, as anticipated, and we resumed normal mitigation operation.

IV. Mitigation Supply

Hobo Springs flows would have been sufficient to supply daily mitigation requirements between July 2, 2019 and August 15, 2019 had the meter been reading correctly. When compensatory mitigation was being delivered, Hobo Springs had approximately 1,200 gallons per minute of excess water flowing over the weir during the make-up period. Flow rates were limited only by the infrastructure’s ability to convey the flow. See **Chart 1** for a daily comparison of Hobo Springs flow available, actual mitigation volume delivered, and corrected mitigation requirement volume.

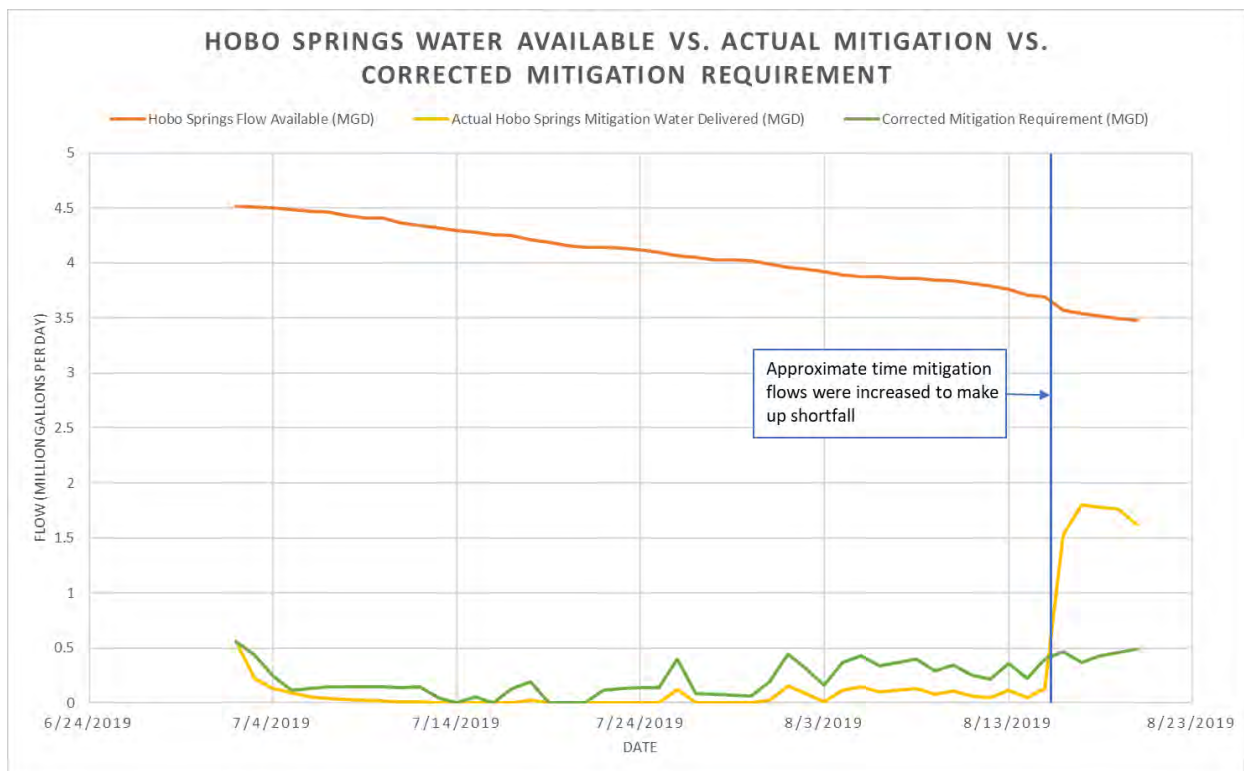


Chart 1. Daily comparison of actual mitigation volume delivered, corrected mitigation requirement, and Hobo Springs flow available.

V. River Impact

The impact on the river due to the City’s inadvertent under mitigation was small. As a percentage of river flow, the maximum daily mitigation shortfall of 291,749 gallons on August 1, 2019 would have comprised approximately 0.07% of mainstem Snoqualmie River flow near Snoqualmie (USGS Gauge # 12144500) and approximately 0.31% of the South Fork of the Snoqualmie River flow near North Bend (USGS Gauge # 12144000). We estimate the difference in rise in the South Fork of the Snoqualmie River to be approximately 0.005 ft. or 0.06 in. based on flow vs. stage differences shown on the USGS gaging station website. The City’s immediate action provided compensatory mitigation over a period of only

five days making up for 40 days of the inadvertent under mitigation. See **Chart 2** for a comparison of the South Fork of the Snoqualmie River flow as compared to the actual mitigation delivered and the corrected mitigation requirement.

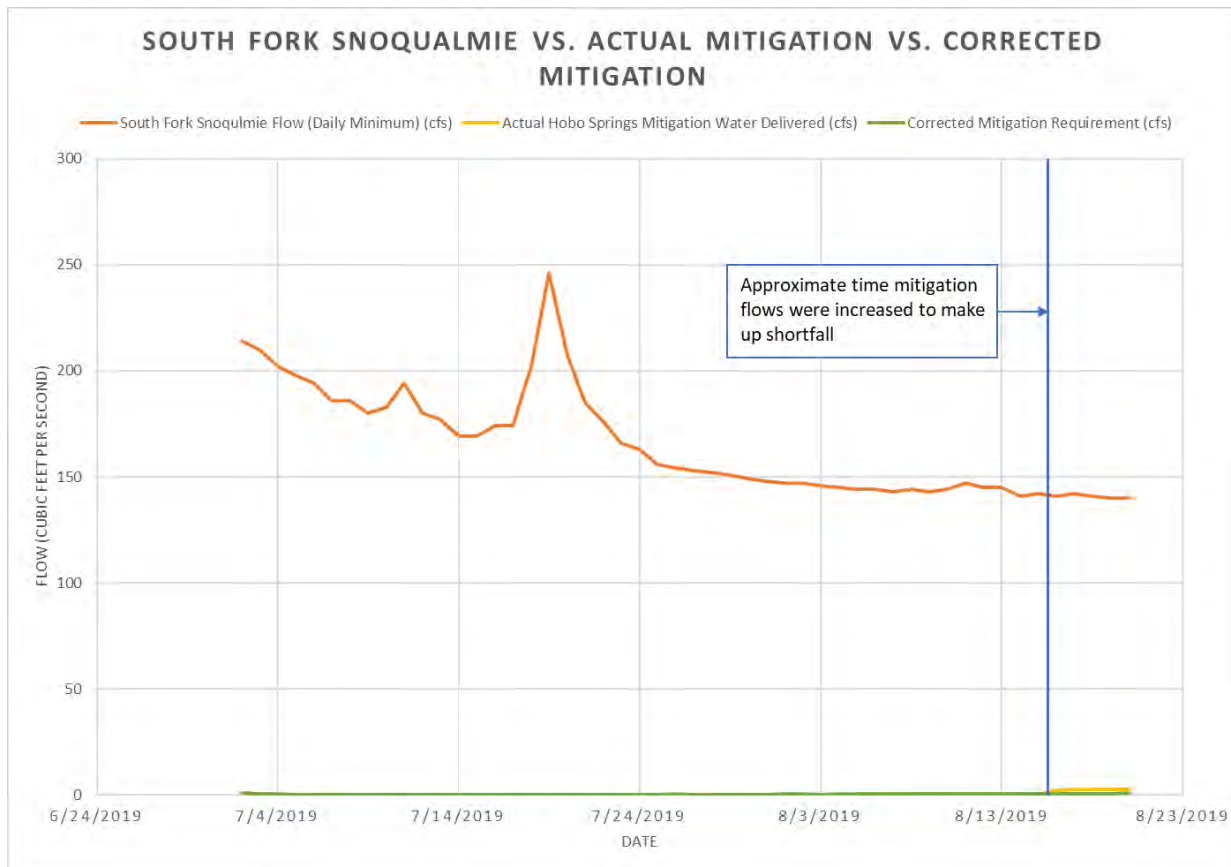


Chart 2. Comparison of flow in the South Fork of the Snoqualmie River, actual mitigation delivered, and corrected mitigation requirement.

VI. Reporting

Golder Associates initially reported this problem to Jay Cook, Kellie Gillingham, and Buck Smith, all with the Washington State Department of Ecology via telephone message on August 16, 2019. At that time, the volume of the shortfall was unknown. City staff spent Friday, August 16, 2019 and Saturday, August 17, 2019 performing calculations to determine the volume of the shortfall. After making this determination, Ecology was again contacted via email on August 18, 2019 with a description of the problem, approximate volume of the shortfall (approximately 7 million gallons, including August 16, 2019 daily mitigation requirement), actions underway to make up the shortfall, request to use Cascade Golf Course, and preliminary measures that could be taken in the future to prevent recurrence of this issue. The City again contacted Ecology via email on August 19, 2019 with an update to the situation and later in the day with information regarding the use of the Cascade Golf Course water right, and rescinding the request to use that water right due to access issues, initially made on August 18, 2019. This report will conclude reporting on this issue.

VII. Steps to be Taken to Prevent Recurrence of This Issue

The City has implemented the following safeguards to prevent recurrence of this and similar issues in the future:

1. The City will use contractors experienced in work of this type and magnitude in the future, rather than using internal staff.
2. During the repair or replacement of any critical flow meters, the City will have a second instrument on-site to confirm accuracy prior to placing the new or replaced meter into service.
3. The City will only perform work of this type at times of the year that mitigation has not historically been required, whenever possible.
4. The City will include a section on metering in an update to the Operations & Maintenance Plan. This will include discussion of Ecology's metering rule, how it applies to this system, and how the City will comply with the requirements of the rule.
5. The City will include a section strictly focused on mitigation water in the Emergency Response Plan required to be developed in accordance with the Water Infrastructure Act of 2018.
6. Finally, the City will formalize a request to Ecology to permanently convert the Cascade Golf Course water right from an irrigation water right to a mitigation water right. Upon successful conversion, the City will acquire all rights to, and construct the necessary infrastructure to make the Cascade Golf Course water right a viable mitigation source.

VIII. Conclusion

We take our duties under our water right permit extremely seriously; the unexpected metering error forced us to examine our internal processes which will lead to further safeguards in the system. We took immediate actions to remedy the mechanical error and deliver the compensatory mitigation water once discovered and as discussed above. It is important to reiterate that the City had sufficient mitigation water to provide the mitigation water as planned in the City's water right and that the under mitigation was solely the result of a mechanical error. All compensatory mitigation for the 40 days of under mitigation was supplied in less than a week from the date that the error was discovered. The City looks forward to working with the Department of Ecology and is extremely appreciative of the assistance of Department of Ecology staff in assisting the City in remedying this error.

Table 1

	Reported Volume Pumped from Centennial Well	Actual Volume Pumped from Centennial Well		Actual Hobo Springs Mitigation Water Delivered	Corrected Mitigation Requirement	Daily Mitigation Shortfall	Cumulative Mitigation Shortfall	Volume to add to previous 365 day Centennial report volume ¹	Volume pumped previous 365 days from MWMS report	Revised volume pumped previous 365 days
Date	(Gallons)	(Gallons)	Difference	(Gallons)	(Gallons)	(Gallons)	(Gallons)	(Million Gallons)	(Million Gallons)	(Million Gallons)
7/2/2019	308,057	616,114	308,057	561,100	558,204	(2,896)	(2,896)	0.308057	92.9	93.208
7/3/2019	153,076	306,152	153,076	224,100	437,646	213,546	210,650	0.461133	93	93.461
7/4/2019	15,752	31,504	15,752	135,000	244,031	109,031	319,681	0.476885	93.2	93.677
7/5/2019	153,506	307,012	153,506	91,000	112,893	21,893	341,574	0.630391	93.2	93.830
7/6/2019	153,785	307,570	153,785	56,900	130,046	73,146	414,720	0.784176	93.3	94.084
7/7/2019	153,774	307,548	153,774	41,000	143,762	102,762	517,482	0.937950	93.5	94.438
7/8/2019	154,276	308,552	154,276	30,000	146,672	116,672	634,154	1.092226	93.6	94.692
7/9/2019	154,971	309,942	154,971	22,000	147,889	125,889	760,043	1.247197	93.8	95.047
7/10/2019	150,269	300,538	150,269	19,000	149,403	130,403	890,446	1.397466	93.9	95.297
7/11/2019	154,573	309,146	154,573	12,000	142,407	130,407	1,020,853	1.552039	94.1	95.652
7/12/2019	4,964	9,928	4,964	10,000	148,410	138,410	1,159,263	1.557003	94.3	95.857
7/13/2019	486	972	486	-	45,463	45,463	1,204,726	1.557489	94.3	95.857
7/14/2019	116,921	233,842	116,921	-	-	-	1,204,726	1.674410	94.3	95.974
7/15/2019	59,214	118,428	59,214	-	55,147	55,147	1,259,873	1.733624	94.3	96.034
7/16/2019	155,639	311,278	155,639	-	5,921	5,921	1,265,794	1.889263	94.4	96.289
7/17/2019	188,355	376,710	188,355	-	128,018	128,018	1,393,812	2.077618	94.2	96.278
7/18/2019	155,889	311,778	155,889	25,000	195,044	170,044	1,563,856	2.233507	94.4	96.634
7/19/2019	500	1,000	500	-	-	-	1,563,856	2.234007	94.5	96.734
7/20/2019	481	962	481	-	-	-	1,563,856	2.234488	94	96.234
7/21/2019	154,797	309,594	154,797	-	-	-	1,563,856	2.389285	93.9	96.289
7/22/2019	153,721	307,442	153,721	-	112,922	112,922	1,676,778	2.543006	93.7	96.243
7/23/2019	153,704	307,408	153,704	-	132,662	132,662	1,809,440	2.696710	93.7	96.397
7/24/2019	153,927	307,854	153,927	-	139,522	139,522	1,948,962	2.850637	93.3	96.151
7/25/2019	311,275	622,550	311,275	-	142,507	142,507	2,091,469	3.161912	92.8	95.962
7/26/2019	407	814	407	126,800	399,390	272,590	2,364,059	3.162319	92.8	95.962
7/27/2019	100,693	201,386	100,693	1,400	86,732	85,332	2,449,391	3.263012	92.3	95.563
7/28/2019	100,718	201,436	100,718	-	79,057	79,057	2,528,448	3.363730	91.9	95.264
7/29/2019	100,776	201,552	100,776	-	68,393	68,393	2,596,841	3.464506	91.3	94.765
7/30/2019	190,307	380,614	190,307	-	61,526	61,526	2,658,367	3.654813	90.9	94.555
7/31/2019	334,717	669,434	334,717	26,000	193,506	167,506	2,825,873	3.989530	90.4	94.390
8/1/2019	234,376	468,752	234,376	152,000	443,749	291,749	3,117,622	4.223906	90	94.224
8/2/2019	74,635	149,270	74,635	86,000	311,492	225,492	3,343,114	4.298541	89.7	93.999
8/3/2019	289,547	579,094	289,547	10,500	164,009	153,509	3,496,623	4.588088	89.4	93.988
8/4/2019	309,662	619,324	309,662	115,000	367,206	252,206	3,748,829	4.897750	89	93.898
8/5/2019	246,050	492,100	246,050	146,000	427,715	281,715	4,030,544	5.143800	88.7	93.844
8/6/2019	268,617	537,234	268,617	102,000	338,459	236,459	4,267,003	5.412417	88.5	93.912
8/7/2019	284,164	568,328	284,164	116,000	367,110	251,110	4,518,113	5.696581	87.9	93.597
8/8/2019	168,827	337,654	168,827	132,000	396,923	264,923	4,783,036	5.865408	87.5	93.365
8/9/2019	259,363	518,726	259,363	81,000	293,802	212,802	4,995,838	6.124771	87	93.125
8/10/2019	146,989	293,978	146,989	107,000	345,464	238,464	5,234,302	6.271760	86.5	92.772
8/11/2019	141,790	283,580	141,790	64,000	257,544	193,544	5,427,846	6.413550	85.9	92.314
8/12/2019	273,614	547,228	273,614	45,000	219,272	174,272	5,602,118	6.687164	85.4	92.087
8/13/2019	134,927	269,854	134,927	115,000	358,631	243,631	5,845,749	6.822091	85.2	92.022
8/14/2019	294,684	589,368	294,684	48,000	223,086	175,086	6,020,835	7.116775	84.7	91.817
8/15/2019	645,998	1,291,996	645,998	135,000	396,497	261,497	6,282,332	7.116775	84.2	91.317
8/16/2019	507,842	1,015,684	507,842	1,529,600	464,724	(1,064,876)	5,217,456	7.116775	84.1	91.217
8/17/2019	591,949	1,183,898	591,949	1,799,000	371,586	(1,427,414)	3,790,042	7.116775	83.9	91.017
8/18/2019	622,309	1,244,618	622,309	1,780,700	426,708	(1,353,992)	2,436,050	7.116775	83.7	90.817
8/19/2019	656,412	1,312,824	656,412	1,763,500	457,246	(1,306,254)	1,129,796	7.116775	83.7	90.817
8/20/2019	639,322	1,278,644	639,322	1,620,200	488,872	(1,131,328)	(1,532)	7.116775	83.8	90.917

1. This volume is the cumulative difference between Reported Volume Pumped from Centennial Well and Actual Volume Pumped from Centennial Well.

City of North Bend Public Works
920 SE Cedar Falls Way, P.O. Box 896, North Bend, WA 98045 • Phone 425.888.0486 • Fax 425.888-3502 •
www.northbendwa.gov

W:\Mitigation\2019 Centennial Metering Issue\Final Report and Calculations\Final Event Report.docx

APPENDIX K

PUBLIC WORKS CONSTRUCTION STANDARDS

CITY OF NORTH BEND

KING COUNTY

WASHINGTON



PUBLIC WORKS STANDARDS

G&O #18484
JUNE 2018



Acknowledgements

City Administrator
Londi Lindell

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PUBLIC WORKS STANDARDS

CITY OF NORTH BEND

Original Adoption: _____

Ordinance: _____

Revised: _____

City of North Bend
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Originally Prepared by:

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June 2018

NORTH BEND PW STANDARDS

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REFERENCE DOCUMENTS

Performance and Maintenance Bond Agreement
Performance and Maintenance Assignment of Funds Agreement
Utility Easement
Pre-Application Checklist
Plan Review Checklist
Final Inspection Checklist
Submittal Standards
Small Site TESC Plan
Small Site Storm Drainage Handout
Site Development Checklist

SECTION 1

INTRODUCTION

SECTION 1 INTRODUCTION

1.01 Application

These Standards shall apply to all improvements within the public right-of-way and/or public easements, to all improvements required within the proposed public right-of-way of new subdivisions, for all improvements intended for ownership, operation and maintenance by the City and for all other improvements (on or offsite) for which the City of North Bend Municipal Code (NBMC) requires approval from the City Administrator, Public Works Director, City Engineer, Director of Planning and Community Development, and/or the City Council. These standards also apply to new streets, street improvements, or other infrastructure improvements that will remain privately owned. These Standards are intended as guidelines for designers and developers in preparing their plans and for the City in reviewing plans. Where minimum values are stated, greater values should be used whenever practical; where maximum values are stated, lesser values should be used where practical. The developer is, however, cautioned that higher standards, additional studies, and/or environmental mitigation measures may, and will, in all likelihood, be imposed by the City when developing on, in, near, adjacent, or tributary to critical areas to include, but not be limited to, erosion, flood, steep slope, landslide, and seismic hazards; and streams and wetlands.

Alternate designs will be accepted when it can be shown, to the satisfaction of the City, that such alternate designs will provide a design equal to or superior to that specified. In evaluating the alternate design, the City shall consider appearance, operations, durability, maintenance, public safety, and other appropriate factors.

Any improvements not specifically covered herein by these Standards must meet or exceed, as determined by the Public Works Director, the current edition of the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge & Municipal Construction, revised as to form to make reference to Local Governments. Said specifications shall be referred to hereafter as the "Standard Specifications".

Where improvements are not covered by these Standards nor by the WSDOT Standard Specifications or Standard Plans, the City will establish appropriate standards in its sole reasonable discretion, in a manner consistent with sound engineering practice and judgment. Where these Standards conflict with any existing City code or discrepancies exist within the body of this text, the higher standards shall be utilized as determined by the Public Works Director.

Improvements in the public right-of-way or within public easements, and any other improvements to be dedicated to the City, shall be included as a written condition of application approval or shall otherwise require the advance written approval of the City.

The designer shall submit calculations or other appropriate materials supporting the design of utilities, pavements, and storm drainage facilities. The designer shall submit calculations for structures and other designs when requested by the Public Works Director and/or Building Official.

1.02 Definitions

Definitions: As used herein:

- (a) "ADA" means the Americans with Disabilities Act (ADA) of 1990. 42 USC 12101 et seq with implementing regulations. See ADA Home Page: <http://www.ada.gov>

- (b) “City” means the City of North Bend, Washington, King County, a municipal corporation, existing under and by virtue of the laws of the State of Washington.
- (c) “City Administrator” means the City’s duly appointed City Administrator or his/her authorized representative.
- (d) “Contractor” means the Developer's contractor or subcontractor.
- (e) “Details or Additional Drawings” means all details or drawings prepared to further explain or clarify the plans, or for the revision of the same, all as herein provided.
- (f) “Developer” means any person, firm, partnership, association, joint venture, or corporation or any other entity responsible for a given project, for which an approval is required from the City. The term shall also include the Developer’s contractor employed to do the work or the contractor's employees.
- (g) “Development” means the construction, reconstruction, conversion, structural alteration, relocation, enlargement, or change in use of any structure or property, or any project which will increase vehicle trips per day during peak hour traffic, or any project which negatively impacts the service level, safety, or operational efficiency of serving roads, utilities, and storm drainage systems.
- (h) “Developers Agreement” means any written agreement such as SEPA mitigation conditions, conditions of approval for subdivisions, conditions associated with any permit, approved plans, Developer Extension Agreement, and any other written agreement between the City and a Developer.
- (i) “Director” means the City’s duly appointed Director of Public Works, or his/her authorized representative.
- (j) “Engineer” means the City’s Engineer, whether a staff engineer or consultant.
- (k) “Equipment” means the machinery, accessories, appurtenances and manufactured articles to be furnished and/or installed under the Project.
- (l) “Infrastructure Maintenance Manager” means the City's utilities superintendent, or operations and maintenance supervisor, or Public Works Director.
- (m) “Maintenance Surety,” “Maintenance Bond,” or “Guarantee Bond” means a surety furnished by the Developer and written by a corporate body qualified to write surety in the State of Washington, guaranteeing that the Developer will repair any defects found in the work within the time period as further identified herein.
- (n) “Material or Materials” shall be construed to embrace machinery, manufactured articles, materials of construction (fabricated or otherwise) and any other classes of material to be furnished in connection with the Project.
- (o) “Multiple Use Building” means a building, or set of buildings with multiple tenant spaces, not including residential-only structures, served by a shared domestic water service, example strip malls.

- (p) “Or Equal” means any manufactured article, material, method, or work which, in the opinion of the Engineer, is equally desirable or suitable for the purposes intended in these standards as compared with similar articles specifically mentioned herein.
- (q) “Performance Surety” or “Performance Bond” means a surety furnished by the Developer and written by a corporate body qualified to write surety in the State of Washington, guaranteeing that the work will be completed in accordance with the plans and specifications.
- (r) “Permittee” means any party applying for or having received a permit.
- (s) “Plans” mean drawings, including reproductions thereof, of the work to be done as an extension to the City's public roads and utilities, prepared by an engineer licensed in the State of Washington.
- (t) “Plumbing Code” means the Uniform Plumbing Code as adopted by City of North Bend City Council, together with amendments, additions, and exemptions per NBMC 15.20.
- (u) “Premise Isolation” means a method of protecting the public water system by installation of approved air gaps or approved backflow prevention assemblies at or near the service connection or alternative location acceptable to the purveyor to isolate the consumer’s water system from the purveyor’s distribution system.
- (v) “Project” means the structure or improvement to be constructed in whole or in part.
- (w) “Reference Specifications” means the technical specifications of other agencies incorporated or referred to herein.
- (x) “Reviewing Agency” means the City of North Bend.
- (y) “Special Provisions” means the directions, provisions, and requirements designated by an engineer licensed in the State of Washington for the performance of the work and for the quantity and quality of materials, as contained or referenced herein.
- (z) “Specifications” shall mean the prescribed directions, requirements, explanations, terms and provisions pertaining to the various features of the work to be done, or manner and method of performance. They also include directions, requirements, and explanations as set forth on the plans.
- (aa) “Standard Details” means the City of North Bend standard detail drawings.
- (bb) “Standard Plans” means the current editions of the Standard Plans, Washington State Department of Transportation.
- (cc) “Standard Specifications” means the current edition of the Standard Specifications for Road, Bridge and Municipal Construction”, English edition, Washington State Department of Transportation, including all amendments.
- (dd) “Unapproved Auxiliary Supply” means a water supply (other than the purveyor’s water supply) on or available to the consumer’s premises that is either not approved for human consumption by the health department or is not otherwise acceptable to the purveyor. Sites with unapproved auxiliary supplies require premise isolation.

- (ee) “Words and Phrases.” Whenever the words, “as directed”, “as required”, “as permitted”, or words of like effect are used, it shall be understood that the direction, requirement or permission of the Engineer is intended. The words, “sufficient”, “necessary”, “proper”, and the like shall mean sufficient, necessary or proper in the judgment of the Engineer. The words, “approved”, “acceptable”, “satisfactory”, or words of like import shall mean approved by or acceptable to the Engineer.
- (ff) “Work” means the labor or materials or both, superintendence, equipment, transportation, and other facilities necessary to complete the Project.

1.03 Developer to be Informed

The Developer is deemed to be fully informed regarding the nature, quality, and the extent of the work to be done, and, if in doubt, to seek additional guidance from the City.

1.04 Authority of the City Administrator

The City Administrator or his/her authorized representative shall have the authority to stop work whenever development is being done contrary to the provisions of the Standards, City code, or regulation of the city; and shall have authority to reject work and materials which do not conform and to decide questions which may arise in the execution of the work and have the authority to determine the amount, quality, acceptability and fitness of the several kinds of work, material and equipment and to decide all questions relative to the classification of materials and compliance with the Standards, and to reject or condemn all work or material which does not conform to the provisions herein.

Any material errors or material omissions in the approved plans or information used as a basis for such approvals may constitute grounds for withdrawal of any approvals and/or stoppage of any or all of the permitted work, as determined in the sole reasonable discretion of the City. It shall be the responsibility of the Developer to show cause why such work should continue, and to otherwise make such changes in plans that may be required by the City before the plans are re-approved.

Moreover, the City has not so delegated, and the City Administrator or his/her authorized representative(s) does (do) not purport to be a safety expert, is not so engaged in that capacity under the Contract, and has neither the authority nor the responsibility to enforce construction safety laws, rules, regulations or procedures, or to order the stoppage of work for claimed violations thereof. The furnishing by the City of resident project representation and/or inspection shall not be construed by the Contractor or Developer that the City is responsible for the identification or enforcement of such laws, rules, or regulations.

1.05 Payment for City Services

The Developer shall be responsible for promptly reimbursing the City for all costs and expenses incurred by the City in the pursuit of project submittal, review, approval, and construction. These costs include, but are not limited to, the utilization of staff and other outside consultants as may be necessitated to adequately review and inspect construction of the project. All legal, administrative, and engineering fees for project review, meetings, approvals, site visits, construction inspection, etc., shall be subject to prompt reimbursement. The Developer is cautioned that project approval (City acceptance) and occupancy permits will be denied until all bills are paid in full. The City may, at its sole discretion require that funds be placed in an account at the City by which the City may draw from to reimburse said costs.

SECTION 2

PERMITS

SECTION 2 PERMITS

2.01 Permit Required

No person, firm or corporation shall commence work on the construction, alteration or repair of any facility located either in the public right-of-way, public easement, or private property without any necessary permit(s) first having been obtained from the City, provided the City shall not issue right-of-way permits for City-sponsored projects. Permits or approvals from other agencies may be required for some types of work. In such cases, the developer shall provide the City with copies of those permits or approvals, and the associated plans, when requested.

2.02 Permit Application

Any party requesting such permit shall file written application therefore with the City before construction is proposed to start. Such application shall be made on a standard City form provided for that purpose, and shall include:

- (a) The name, address, phone, and email of the applicant (and the name and address of property owner(s) if different than applicant);
- (b) The name, address, phone, and email of the owner(s) of the property abutting the street where the work is proposed;
- (c) The street location of the proposed work, giving the street address or legal description of the property involved;
- (d) A detailed plan showing the dimensions of the abutting properties and the dimensions and location of all existing and/or proposed facilities and other pertinent features necessary to understand the proposed work;
- (e) The plan shall also show the location of buildings, loading platforms or roof overhangs (if significant), and facilities being served or to be served by the new construction.

The City may require, at their discretion, the filing of any other information when in their opinion such information is necessary to properly enforce the provisions of these Standards or other applicable codes.

2.03 Permit Issued

No permit shall be issued until the proposed work has been approved by the appropriate official. No plan shall be approved nor a permit issued where it appears that the proposed work, or any part thereof, conflicts with the provisions of these Standards or any other applicable codes of the City of North Bend, nor shall issuance of a permit be construed as a waiver of the Zoning code or any other code requirements concerning the plan.

A fee in an amount as designated by the City's fee schedule and/or deposit to cover review time for staff and applicable City consultants shall accompany all applications for permits. Payment in advance of all applicable fees and charges shall be a condition to permit issuance.

2.04 Submittal Requirements

A. General

Detailed plans, prepared and sealed by a licensed engineer, shall be submitted to the City for review and approval prior to the commencement of any construction. Applicant's engineer shall be a professional engineer, registered as such in the State of Washington. The City shall, prior to the issuance of construction permits, approve the final plans. Plans shall include, as applicable all aspects of the project, including, but not limited to those items identified by the City.

Specifications shall be required and submitted with the plans if general notes do not adequately cover the project requirements. A submittal checklist is included in the appendices of these standards. Following the standards in accordance with the submittal checklist will help ensure a timely review of the proposed project and keep review costs to a minimum.

Combining Plans - Water, sanitary sewer, and storm drainage designs (complete plan and profile) shall be on separate plan sheets, although alignments of all Utilities shall be shown on each utility plan. Plan sets for all three Utilities can be combined for small projects. Designs for water and sewer can be combined on the same plan sheets if plan scale is 1" = 10', 1" = 20', or 1" = 30'. Contact the Public Works Director for approval to combine plans.

All plan sheets shall include a City approval block, 2 inches high by 4 inches wide:

CITY OF NORTH BEND PERMIT# _____	
THESE PLANS ARE APPROVED FOR CONFORMANCE WITH THE CITY OF NORTH BEND PUBLIC WORKS DEPARTMENT REQUIREMENTS TO THE BEST OF MY KNOWLEDGE.	
CITY ENGINEER OR PUBLIC WORKS DIRECTOR	DATE

All plans are to be submitted to the City for review. Any necessary easements or dedications shall be submitted for review along with the plans. In addition to engineered plans, specific engineering reports shall also be submitted. The following summarizes report requirements.

- B. Traffic Impact Analysis (TIA): A TIA is required for projects that impact traffic volumes, safety, and performance. At a minimum, any project that will increase the PM Peak Hour traffic by more than 10 trips per hour shall submit a TIA. The TIA shall be completed by a licensed engineer in general accordance with the outline provided by the Public Works Department and Section 3.09 of these Standards. The scope of the TIA will be determined by the city engineer, based on the proposed impacts. Intersection Level of Service (LOS) impacts shall be analyzed in the TIA for all intersections wherein the impact is greater than 10 trips per hour, during the PM Peak Hour. A TIA may also be required where requested by the city engineer, based on a project's impacts to vehicle turning movements, parking, sight distance, access location, or other.
- C. Geotechnical Report: Geotechnical engineering reports shall be prepared by a licensed geotechnical engineer and shall cover all portions of the project within his/her expertise including site history; geologic structures; surface conditions; subsurface conditions; geologic hazards per NBMC 14.11; site preparation; structural fill placement and testing; use of onsite materials for

structural fill and backfill; surface and subsurface drainage; dewatering; recommendations for foundation support; excavation conditions and associated hazards; temporary and permanent slopes; design parameters for retaining structures and structure backfill and drainage; and pavement design. The geotechnical engineer shall be retained as the engineer-of-record for the duration of the project.

- D. Technical Information Report (TIR): The TIR, including a downstream and off-site analysis, is required for all projects that impact, improve, modify, or expand the surface water drainage system. The TIR shall be prepared by a licensed engineer and shall be formatted to reflect the TIR outline and content presented in the currently adopted surface water design manual.
- E. Temporary Erosion and Sedimentation Control (TESC) Plan: Prior to issuance of a right-of-way or other necessary construction permits, the developer shall prepare and submit a TESC Plan for review. The plan shall include location and type of temporary and permanent best management practices (BMPs), depicted on plan sheets, including notes and details to provide for minimum measures necessary to prevent erosion on-site and sediment from discharging offsite and fugitive dust generated as a result of construction activities from entering into the public right-of-way, municipal or private storm water systems including roadside ditches or other conveyances, natural waterways not limited to creeks and wetlands, or environmentally sensitive areas and from otherwise being carried away from the construction area by stormwater or air. If the site is required to obtain coverage under the Washington State Stormwater General Permit, the required Stormwater Pollution Prevention Plan (SWPPP) shall be submitted in lieu of a TESC Plan.

SECTION 3

PUBLIC WORKS CONSIDERATIONS

SECTION 3 PUBLIC WORKS CONSIDERATIONS

3.01 Financial Guarantees

Financial guarantees of the work covered under these standards shall be provided in accordance with the applicable City codes and specifically Title 19.01 NBMC. Public works projects are exempt from this section.

3.02 Hold Harmless Clause

The Developer shall indemnify and hold the City, City officers, City employees, City consultants, and their agents and employees harmless from and against all suits, claims, demands, damages, losses, and expenses as specified in Title 19.01 NBMC. Public works projects are exempt from this section.

3.03 Developer's Public Liability and Property Damage Insurance

The Developer shall maintain all required public liability and property damage insurance as specified in Title 19.01 NBMC. Public works projects are exempt from this section.

3.04 Compensation & Employer's Liability Insurance

The Developer shall maintain all required employer insurance and employee compensation as specified in Title 19.01 NBMC. Public works projects are exempt from this section.

3.05 Work Standards

All work performed pursuant to a permit issued shall be done in accordance with standards published in the current Standard Specifications for Road, Bridge & Municipal Construction, State of Washington Department of Transportation (WSDOT), revised as to form to make reference to Local Governments.

The following shall be applicable when pertinent, when specifically cited in the standards, or when required by county, state, or federal funding agencies:

- (a) WSDOT, Local Agency Guidelines (LAG Manual), as amended.
- (b) WSDOT, Materials Manual, current edition.
- (c) WSDOT, Construction Manual, current edition.
- (d) American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets, current edition as adopted by WSDOT.
- (e) AASHTO, Standard Specifications for Highway Bridges, current edition.
- (f) U.S. Department of Transportation, Manual on Uniform Traffic Control Devices (MUTCD), as amended and approved by Washington State Department of Transportation, current edition.
- (g) AASHTO, Guide for the Development of Bicycle Facilities, current edition.
- (h) Associated Rockery Contractors (ARC), Standard Rock Wall Construction Guidelines, 1999.
- (i) American Society for Testing and Materials (ASTM).
- (j) WSDOT, Standard Specifications for Road, Bridge, and Municipal Construction, current edition as amended. These will be referred to as the "Standard Specifications".
- (k) WSDOT, Standard Plans for Road and Bridge Construction, current edition as amended. These will be referred to as the "Standard Plans".
- (l) WSDOT, Design Manual, current edition as amended.

- (m) City and County Design Standards for the Construction of Urban and Rural Arterial and Collector Roads, adopted per RCW 35.78.030 and RCW 43.32.020, May 24, 1989, current edition as amended.
- (n) Institute of Transportation Engineers (ITE), Traffic Engineering Handbook, current edition.
- (o) WSDOT, Highway Runoff Manual, current edition.
- (p) WSDOT, Hydraulics Manual, current edition.
- (q) King County, Surface Water Design Manual, or other drainage design manual, as may be adopted.
- (r) North Bend Municipal Code (NBMC).
- (s) North Bend Stormwater Comprehensive Plan, December 2013.
- (t) Low Impact Development (LID) Technical Guidance Manual for Puget Sound.
- (u) American with Disabilities Act (ADA) regulations as required by The United States Department of Justice Civil Rights Division.
- (v) Public Rights-of-Way Accessibility Guidelines (PROWAG) per United States Access Board (USAB).

Precedence: In case of conflicting standards, codes, or other provisions, the first mention below shall have precedence.

- (1) City Approved Changes
- (2) Developers Agreement
- (3) Conditions of Approval
- (4) City of North Bend Public Works Standards
- (5) Other Applicable City Municipal Codes
- (6) Special Provisions
- (7) Plans and Standard Details
- (8) Standard Specifications, including amendments
- (9) Standard Plans

3.06 Administrative Adjustments

- A. Adjustments from these standards may be granted by the Director upon evidence that such adjustments are in the public interest and that requirements for safety, function, fire protection, appearance and maintainability based upon sound engineering judgment are fully met. Adjustment requests for subdivisions should be proposed at preliminary plat stage and prior to any public hearing or land use decision. Adjustments must be approved prior to approval of the engineering plans for construction. Any anticipated adjustments from these standards which do not meet the International Fire Code shall also require concurrence by the fire marshal. Decisions by the Public Works Director are final; no appeals will be allowed.
- B. Application for Adjustment. Application for an adjustment shall be filed with the Director in writing and shall be accompanied by an appropriate fee as established by resolution, to pay for the cost of processing the application. All applications shall describe the adjustment, with specific references to the sections being requested for adjustment, contain a statement as to why the adjustment is necessary, and why it would meet the criteria of this chapter. The application shall also contain scaled drawings of the affected area, abutting roads, and all property within 300 feet thereof.

3.07 Non-Interference

The developer shall be responsible for minimum interference with:

- Traffic, including pedestrians
- Fire Facility Clearance
- Adjoining Property
- Utility Facilities
- Natural Surface Drainage

Prior to construction, these items are to be discussed with the City Public Works Department, and/or City Fire and Police Departments and/or the City Building Official, and special provisions may be included in any applicable City Permit(s).

3.08 Required Frontage Improvements

Except as specified herein, the developer shall construct the required frontage improvements from the center line of the existing right-of-way outward toward the developer's property line. The required improvements shall be designed and constructed per the requirements of these standards unless additional improvements are required by an adopted Comprehensive Plan or other City Council adopted plan or requirement.

If the one-half of the right-of-way opposite the subject property has not been improved to the minimum standards herein, the developer shall install improvements in the right-of-way as follows:

- A. The developer shall improve the half of the right-of-way abutting the subject property in accordance with these standards ("frontage improvements"), and
- B. The developer shall further construct the roadway on the opposite side from the development, at the discretion of the Public Works Director, excluding pedestrian improvements, to provide the minimum width of travel lanes and parking lane as described in the Standards, and to provide a minimum total width of 20 feet for fire access. Improvements include storm drainage construction, which may consist of filling drainage ditches and installing storm drainpipe and catch basins, asphalt tapers, and channelization, as required by the Public Works Director.

3.09 Traffic Impact Analysis

- A. General

To adequately assess a development traffic impact on the transportation system and level of service (LOS), the public works department may require a traffic impact analysis (TIA). The requirement for a TIA will be based on the size of the development proposed, existing street and intersection conditions, traffic volumes, accident history, community concerns, and other pertinent factors relating to traffic impacts attributable to development projects. All projects, regardless if a TIA is required, shall obtain a certificate of concurrency, per Title 20.12 NBMC, prior to project approval.

B. TIA – When Required

For any project that creates 10 or more new p.m. peak hour trips, a developer shall provide a trip generation and trip distribution report for the project for a distance from the project wherein the new trips fall below 10 p.m. peak hour trips. Further, for projects that add 10 or more p.m. peak hour trips to an intersection of a Major or Minor Arterial, or Collector, the developer shall provide a Traffic Impact Analysis (TIA) for those intersections meeting the requirements of this section. This requirement shall be waived if, in the opinion of the city engineer, there exists current information from the City or another project to adequately assess the project's impacts.

For development projects that do not trigger the requirement to prepare a TIA, the developer shall perform a minimum analysis of the existing and proposed transportation infrastructure, including identifying any of the following deficiencies, whether existing, or caused by the development, on proposed or existing roadways:

- (1) Sight distance;
- (2) Illumination;
- (3) Pedestrian and bicycle facilities;
- (4) Parking;
- (5) Bus stops.

C. TIA Scope of Work

The level of detail and scope of work of a TIA may vary with the size, complexity, and location of the development. A TIA shall be a thorough review of the immediate and long-range effects of the development on the transportation system. TIAs shall be prepared by an engineer licensed to practice in the State of Washington with special training and experience in traffic engineering and who is a member of the Institute of Transportation Engineers (ITE). The Traffic Impact Analysis shall follow the following outline:

- (1) **Project Description and Maps.** Provide a copy of the site plan showing the type of development, street system, right-of-way limits, access points, and other features of significance. Also include pertinent nearby off-site information such as locations of adjacent intersections and driveways, land use, etc., and vicinity map showing the transportation system to be impacted by the development. Discuss frontage improvements, dedications, access, etc. Identify horizon years for traffic analysis purposes.
- (2) **Background Information.** Identify and describe any current relevant traffic information that describes the characteristics of the transportation system and volumes. Identify expected increases in background traffic volume or pattern changes.
- (3) **Trip Generation and Distribution.** Provide explanation and maps to document and illustrate the project's estimated trips and distribution. Trip generation shall be estimated using the latest edition of the ITE Trip Generation Manual. The methodology for trip distribution shall be clearly defined and discussed in detail. Break out and describe vehicles, pedestrians, bicycle, transit, and other transportation modes.
- (4) **Existing Conditions.** Discuss affected street characteristics including functional classification, travel lanes, lane width, shoulders, bicycle and pedestrian facilities, and traffic control at study intersections. Identify safety and access problems including

accident history, sight distance restrictions, traffic control, and pedestrian conflicts. Obtain all traffic data from the City and surrounding jurisdictions, if applicable. If unavailable, the individual firm preparing the TIA shall collect the necessary data to supplement discussions and analysis in the TIA.

- (5) **Future Traffic.** Future traffic conditions Not Including Site Traffic shall be estimated, for the horizon year for project development, including planned transportation improvements and other relevant development projects. Future traffic conditions Including Site Traffic shall be estimated at development completion. These analyses shall address both capacity and safety. A figure will be required showing daily and peak period turning movement volumes for each study intersection. In addition, a figure shall be prepared showing the baseline volumes with site-generated traffic added to the street network. This figure will represent site specific traffic impacts to existing conditions.
- (6) **Impacts to Traffic Operations.** The level of service (LOS) and capacity analysis shall be conducted for each study intersection. If the development is scheduled to be constructed in phases, the TIA shall conduct a LOS analysis for each separate phase. The individual or firm preparing the TIA shall calculate the intersection LOS for each of the following conditions:
 - (a) Existing peak hour traffic volumes (with figure).
 - (b) Existing peak hour traffic volumes including site-generated traffic (with figure).
 - (c) Future traffic volumes not including site-generated traffic (with figure).
 - (d) Future traffic volumes including site-generated traffic (with figure).
 - (e) Level of Service results for each intersection for each traffic volume scenario, with table. Table shall show LOS results for a.m. and p.m. peak periods, if applicable. The table shall show LOS conditions with corresponding vehicle delays for signalized intersections (all approaches) and LOS conditions for the critical movements at unsignalized intersections.
- (7) **Mitigation.** The TIA shall include a proposed mitigation plan. The mitigation may be either the construction of necessary transportation improvements, or contributions to the City for the development's fair share of the costs for identified future transportation improvements. Contributions may include King County MPS, Transportation Impact Fees, or fee-in-lieu fees as may be determined through the project's SEPA review. The developer may qualify for a reduction in Transportation Impact Fees, if eligible under the credits described in NBMC 17.38.050.

3.10 Dedication of Right-of-Way

If a right-of-way abutting the subject property is not wide enough to contain the required improvements, then the developer shall dedicate as right-of-way a strip of land adjacent to the existing right-of-way, at a width in accordance with these standards.

3.11 Easements

Where City utilities and/or their conveyance systems cross private lands, a public easement shall be granted to the City. The developer will prepare, process, record, and file all easements at no cost to the City. If the property is platted the easement may be conveyed at the time the short plat or final plat is filed. All easements not shown on the plat must be prepared by a licensed surveyor or engineering firm capable of performing such work.

Drainage easements shall be as specified in the currently adopted surface water design manual, but in no cases shall be less than 15 feet in width for a single utility and 20 feet for dual utilities or otherwise as approved by the City. Construction easements shall be 25 feet minimum in total width, including the permanent easement. Where trench depths or utility size dictate, the City may require a wider easement that considers the proximity of adjacent utilities, structures, slopes, or roadways.

The locations of utilities within easements shall be accurately surveyed and staked to guide the construction. Any deviation from this requirement must be approved by the City to prevent offset installation of utilities to encumber future work.

No permanent structures are allowed to be constructed in the easement area. Access to easements for maintenance and/or repair of the utility by the City shall not be restricted or prohibited by fences, rockeries, plantings and other improvements.

In general, all easements shall be located within single lots rather than being split by a lot line. In special circumstances, easements may be located on two adjacent lots with the approval of the Public Works Director.

Easements are required to be submitted in draft, unsigned for review and approval prior to plan or final plat approval, at the City's discretion. Signed copies are required prior to final approval. Easements will be filed by the developer upon satisfactory completion of the work.

All work on easements shall be performed strictly in accordance with easement provisions. Easements shall be restored equal to or better than original condition. The Developer shall do no work on easement areas until specifically authorized by Engineer.

3.12 Inspection

A. Construction Control

Work performed for the construction or improvement of City roads, commercial sites, residential neighborhoods, and/or utilities whether by a private developer, by City forces, or by a City contractor, shall be done to the satisfaction of the City and in accordance with approved plans. It is emphasized that no work shall start until such plans are approved, permits issued, and preconstruction meeting held, and until financial securities and insurance have been provided per applicable city codes for the various aspects of construction. The City shall approve any revisions to the approved plans before revisions are implemented. Failure to acquire the City's approval for any work can result in removal or modification of construction at the contractor's or developer's expense.

The City requires a developer and/or their contractor to retain an engineer licensed to practice in the specialty of geotechnical engineering and that this engineer be kept on retainer for their representative project during the entire construction process. The geotechnical engineer shall make periodic visits and inspections for, but not limited to, trench and foundation excavation and backfill, preparation of road subgrade, roadway fill and compaction efforts, slope construction and stability, surface and subsurface drainage, erosion control, and any other pertinent issues that arise throughout construction. Sites that are required to obtain coverage under the Washington State Construction General Permit or an Individual Permit shall abide by inspection frequencies, discharge monitoring, and reporting requirements specified in those applicable state permits.

B. General

The City shall exercise full right of inspection of all excavating, construction, and other invasions of City right-of-way or public easements. The City Engineer or designated official shall be notified on the working day prior to commencing any work in the City's right-of-way or public easements. The city engineer and/or his authorized representative is authorized to and may issue immediate Stop Work Orders in the event of noncompliance with this chapter and/or any of the terms and provisions of the permit or permits issued hereunder.

Timely notification by the developer as noted herein is essential for the City to verify thorough inspection that the work meets the standard. Failure to notify in time may oblige the City to arrange appropriate sampling and testing after-the-fact, with certification, by a professional engineer. Costs of such testing and certification shall be borne by the developer. At the time that such action is directed by the city engineer, the city engineer may prohibit or limit further work on the development until all directed tests have been completed and corrections made to the satisfaction of the city engineer. If necessary the City may take further action as set forth in the North Bend Municipal Code (NBMC).

It is the responsibility of the developer or their agents to have an approved set of plans and any necessary permits on the job site whenever work is being performed. All specific inspections, test measurements or actions required of all work and materials are set forth in their respective chapters herein. Tests shall be performed at the developer's expense.

C. Requirements for subdivision, binding site plan, commercial and right-of-way land use inspection.

On all road and drainage facility construction, proposed or in progress, which relates to subdivision, binding site plan, commercial and right-of-way development, inspection will be done by the city engineer. Unless otherwise instructed by the city engineer, construction events which require monitoring or inspection are identified as follows:

- (1) Preconstruction Conference. Three working days' prior notice. Conference must precede the beginning of construction and include contractor, design engineer, utilities, and other parties affected. Plan approvals and permits must be in hand prior to the conference.
- (2) Clearing and Temporary Erosion/Sedimentation Control. One working days' notice prior to initial site work involving drainage and installation of temporary water retention/detention and sedimentation control. Such work to be in accordance with the currently adopted surface water design manual and the approved plans.
- (3) Erosion and Sedimentation Control. Within 48 hours of a significant rain event, defined as greater than 0.25 inches of rain within 24 hours, to ensure proper function of temporary Best Management Practices (BMPs) installed onsite.
- (4) Utility and Storm Drainage Installation. One working days' notice prior to trenching and placing of storm sewers and underground utilities such as sanitary, water, gas, power, telephone, and TV lines.
- (5) Utility and Storm Drainage Backfill and Compaction. One working days' notice before backfill and compaction of storm sewers and underground utilities.

- (6) Subgrade Completion. One working days' notice at stage that underground utilities and roadway grading are complete, to include placement of gravel base if required. Inspection to include compaction tests and certifications described in the WSDOT Standard Specifications.
- (7) Curb and Sidewalk Forming. One working days' notice to verify proper forming and preparation prior to pouring concrete.
- (8) Curb and Sidewalk Placement. One working days' notice to check placement of concrete.
- (9) Crushed Surfacing Placement. One working days' notice to check placement and compaction of crushed surfacing base course and top course.
- (10) Paving. Three working days' notice in advance of paving with hot mix asphalt or Portland cement concrete.
- (11) Structural. Three working days' notice prior to each critical stage such as placing foundation piling or footings, placement and assembly of major components, and completion of structure and approaches. Tests and certification requirements will be as directed by the city engineer.

D. Final Construction Inspection

Fifteen working days' notice prior to overall check of road or drainage project site, to include completion of paving and associated appurtenances and improvements, cleaning of drainage system, and all necessary cleanup and site restoration. Prior to final approval or occupancy, to ensure proper installation of permanent stormwater facilities, the city engineer shall verify that a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control facilities. The City shall, upon completion of a satisfactory final inspection, issue a letter of completion for the project. Final inspection will not take place and the letter of completion will not be issued unless the developer is current with all required fees.

E. Final Maintenance Inspection

Thirty days' notice prior to the end of the maintenance period. Prior to release of the maintenance guarantee, there shall be successful completion of the maintenance period as described in Section 3.01, repair of any failed facilities and the payment of any outstanding fees.

3.13 Utilities

The plans show the approximate locations of various existing utilities known to the engineer, such as gas lines, water mains, storm drainage, power lines, telephone lines, television cables, and other obstructions based on information obtained from various sources. This information is not guaranteed to be accurate, and the Developer is directed to check for interferences and obstructions by inquiry from the different utilities and by underground exploration ahead of his regular excavation. Prior to performing excavation, the developer shall be responsible for having all utilities located in accordance with RCW 19.122. The utilities one-call underground locating center phone number is 1-800-424-5555 or 811.

With the exception of other requirements, agreements, or regulatory stipulations, the City shall have the authority to approve the depth, orientation, height, and location of all utilities located within the public

rights-of-way and public easements. Gravity systems (sewer and storm drainage) shall have precedence for location over other utilities. The location of fire hydrants shall be as directed by the Fire Marshall.

The City does not purport to know the size, type, material, function, or location of existing underground utilities. The developer shall be responsible for having all utilities identified and located during design and plan development, and for providing timely notification of all utilities in advance of any construction in right-of-way, easements, and private property. Further, the developer shall be responsible for contacting the effected utility owners to acquire utility information and procedures for moving, abandoning, relocating, repairing, working around, shutting down, or otherwise impacting the utilities prior to commencing construction. The Developer shall excavate around and under service pipes with special care and shall support and maintain them in service. Where it is necessary to cut, move or reconnect any service lines, arrangements shall be made with the respective utility. Work shall proceed and be coordinated and scheduled to cause the least amount of service disruption as possible.

3.14 Erosion, Sedimentation, and Dust Control

The developer shall be responsible for the implementation of the approved Temporary Erosion and Sedimentation Control (TESC) Plan during the course of the work and for continually updating the TESC Plan to address changing site conditions, BMP effectiveness, and employ all or any additional measures to reduce on-site erosion and prevent off-site sedimentation. Prior to final acceptance of the work, all disturbed areas shall be either fully or stabilized. Removal of temporary erosion and sedimentation controls cannot take place until 70 percent of the seeded area have established, constituting a stabilized site condition.

The developer shall sprinkle water as necessary to keep the dust down. This sprinkling shall be maintained until the project is accepted. Sprinkling shall be kept to a minimum and shall not produce runoff from the site. On paved streets, if dust becomes a nuisance when backfilling is completed, the developer shall vacuum sweep the portions of streets being used for traffic. Flushing of streets shall not be permitted without prior City approval.

3.15 Traffic Control

Public safety is of paramount importance. Primarily, traffic control shall be provided and implemented for the benefit and safety of the traveling public, not for the convenience of the contractor or suppliers. However, timely completion of all work within existing roadways and easements is also important and therefore, a balance must be reached for each individual project. Disruption of traffic shall be held to the minimum necessary to complete the work.

The developer shall be responsible for interim traffic control during construction on or along traveled roadways. The City may, at their discretion, require that the developer submit a detailed traffic control plan for review and approval. Traffic control measures shall follow the guidelines of the WSDOT Standard Specifications and applicable state law. All barricades, signs, and flagging shall conform to the requirements of the MUTCD. Signs must be legible and visible and shall be removed at the end of each workday if not applicable after construction hours.

When road closures and detours cannot be avoided the developer shall notify the City in advance. The City may require a Detour Plan to be prepared, submitted, and approved prior to closing any portion of a City roadway. Advance public notice for those affected by the closure shall be required and carried out by the developer.

3.16 Pedestrian Access

All road improvement and development projects shall include approved pedestrian access as part of the design in full compliance of the ADA regulations and PROWAG guidelines. The City may require the developer to install public pedestrian walkways, other than sidewalks as otherwise required by these standards, where the walkway is reasonably necessary as a result of the development activity.

3.17 Replacement of Damaged or Substandard Existing Improvements

For properties that have existing abutting and/or adjacent street improvements, the developer shall remove and replace any damaged or substandard improvements in conjunction with the development of the property. Replacement shall include, but not be limited to, cracked or buckled curb, gutter, and sidewalk; landscaping; storm drainage; street trees, and curb ramps.

3.18 Pavement Restoration

In order to maintain the pavement surface of existing city streets, projects constructing road widening, frontage improvements, and/or utility installations shall be required to restore the pavement to a continuous mat of asphalt surfacing. All such projects shall provide a full-width 2-inch-thick pavement grind and overlay, plus any necessary prelevel course, for the entire length of the widening, frontage improvements, or longitudinal utility work, or where the number of transverse pavement cuts for utility trenches exceed two.

The requirement for full-width overlay may be waived by the city engineer based on the condition of existing pavement, roadway drainage, and the extent of required changes to channelization.

3.19 Street Signs, Pavement Markings, and Traffic Control Devices

The developer shall pay for design and installation of all street signs, pavement markings, and traffic control devices in the location and manner approved by the City.

3.20 As-Built Drawings

A. General

Developers who install systems within, on, or below the City's public rights-of-way, public easements, or tracts to be dedicated to the City, shall furnish the City with accurate surveyed drawings, plans and profiles, showing the finished location, orientation, and curvature of all aboveground and underground structures installed, including existing facilities where encountered and abandoned installations. Horizontal locations of utilities are to be referenced to street centerlines, as marked by survey monuments, and shall be recorded to within one-tenth (0.1') of a foot. Rim and invert elevations shall be recorded to within one one-hundredth (0.01') of a foot. The depth of buried utilities may be referenced to the elevation of the finished street above said utility, with depths to the nearest one-tenth foot being shown at a minimum 50-foot interval along the location of said utility. Use *Washington Coordinate System NAD-83/91– North Zone* as the basis of bearings for all surveys. Prepare survey according to NAVD 88 vertical datum and state that it was the datum used.

Prior to submittal of the final signed as-built drawings, the developer shall submit preliminary as-built drawings for review. The preliminary drawings shall identify completed work differing from the approved drawings by use of strikethroughs, colored markings, cross-outs, redlines, etc.

Once approved, said markings and items not constructed shall be removed prior to submitting the final signed drawings.

Such as-built drawings shall be submitted to the City within 30 calendar days after completion of the work, and prior to release of performance guarantees. As-built drawings shall be stamped, signed and dated by an engineer or surveyor currently licensed in the State of Washington, who is familiar with the project. Said engineer or surveyor shall attest to the accuracy of the information shown on the drawings, on an approved signature block placed on every sheet. An as-built drawing certification block is as follows:

<p>AS-BUILT CERTIFICATION: I HEREBY DECLARE TO THE BEST OF MY KNOWLEDGE THAT THE INFORMATION SHOWN HEREON REFLECTS THE “AS-CONSTRUCTED CONDITIONS”. THIS CERTIFICATION IS BASED UPON WORK PREPARED IN ACCORDANCE WITH GENERALLY ACCEPTED PROFESSIONAL ENGINEERING AND/OR SURVEYING PRACTICES.</p> <p>NAME, P.L.S & P.L.S. NUMBER:</p> <p>DATE:</p>	<p>P.L.S. STAMP AND SIGNATURE HERE</p>
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As-built drawings shall be submitted on permanent, stable reproducible Mylar, as well as electronically per the electronic submittal requirements of NBMC 20.02.006. All data as shown on the drawings shall be “fixed line” or ink. Sticky back (glue) reproductions or “sepia” Mylar shall not be considered acceptable. Electronic files shall also be provided to the City, specifically actual data files, which include files produced using AutoCAD and/or ArcGIS software and an original PDF of the plan set, no scanned images. All file format submittals will be reviewed and approved by the Public Works Director.

B. Requirements

All pipe lengths and dimensions are based on horizontal distances, unless slope is too steep to measure horizontal distance, inspector should note that length is “slope distance”.

Reference or dimension location from right-of-way centerline for utility features in the public right-of-way, or from property line for utility features located within easements.

As-built information shall be recorded on plan and profile views of the contract drawings. The profile view shall note any changes from the design finished grade over each pipeline.

As-built plans shall be submitted to the City using the approved plan set as the basis for the redlined as-built plans. An as-built plan set in digital format shall also be submitted. The digital format shall be in the most current AutoCAD Release in use by the City. The “.DWG” files(s) shall be submitted on CD-ROM.

Storm Drainage System:

- (1) Storm Mains: Length (center of catch basin/manhole to center of catch basin/manhole), diameter, material, slope, direction of flow, note “private” if applicable. Show private systems going to apartments, condominiums, commercial sites, and joint-use side sewers. Label private system lines as “PRIVATE SYSTEM”. Other than joint-use systems, do not show single family private systems, other than stub from public main to property line.
- (2) Storm Stubs: Lengths, depth, material, station. List pipe slope and size.
- (3) Catch basin/ Manholes: Structure ID number, rim elevation, invert elevations, and size.
- (4) Existing Structures: Where new pipes connect to existing structures, it shall be indicated on the drawing.

Water System:

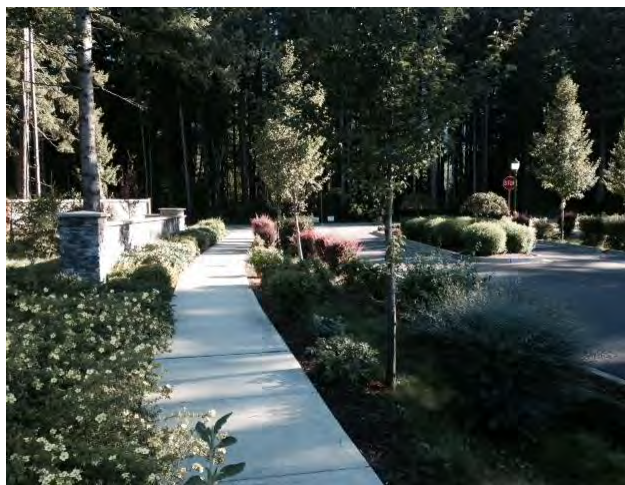
- (1) Water Mains: Length (center of fitting to center of fitting), diameter, material, zone, class of pipe, type of joint restraint (if any), depth, note “private” and “fire line”, if applicable.
- (2) Water Fittings: Call-outs in order, # of each, diameter, fitting, joint type (e.g., 2–8" 45° bend, M.J.).
- (3) Water Services: Size, show location on plan.
- (4) Hydrants: Distance from valve to hydrant, depth of bury (e.g., 5' bury).

Sewer System:

- (5) Sewer Mains: Length (center of manhole to center of manhole), diameter, material, slope, direction of flow, note “private” if applicable. Show private systems going to apartments, condominiums, commercial sites, and joint-use side sewers. Label private system lines as “PRIVATE SYSTEM”. Other than joint-use systems, do not show single family private systems, other than stub from public main to property line.
- (6) Sewer Stubs: Lengths, depth, material, station (stationing of stubs referenced from downstream manhole), distance from property line. List pipe slope and size.
- (7) Sewer Manholes: Manhole ID number, rim elevation, invert elevations (indicate direction of flow IN or OUT), drop (if applicable), and size.
- (8) Sewer Cleanouts: Station, invert elevation, top elevation.
- (9) Existing Sewer Structures: Where new pipes connect to existing manholes, it shall be indicated on the drawing.

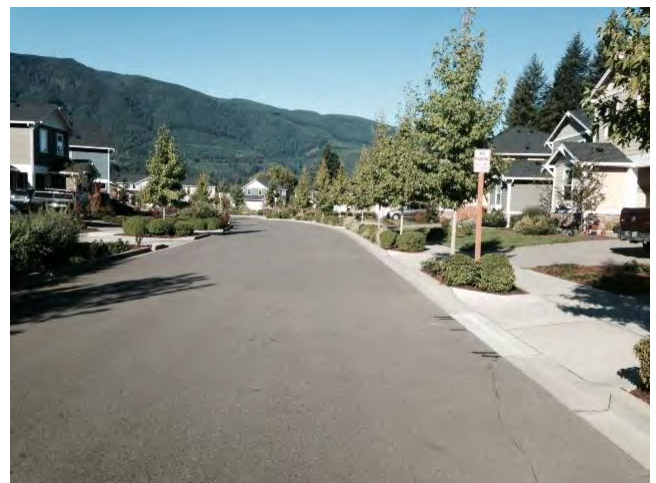
SECTION 4 STREETS, PEDESTRIAN PATHS, AND BIKEWAYS

Planning, Designing,
and Constructing



Transportation
Systems for Driving,

Riding, and
Walking...



SECTION 4 STREETS, PEDESTRIAN PATHS, AND BIKEWAYS

4.01 General Considerations

Street improvements are required for short plats, plats, binding site plans, planned neighborhood districts, development agreements, conditional uses and all new construction, as well as substantial construction improvements requiring a building permit when the existing street is not improved to current city standards. “Substantial construction improvements” shall be defined to mean improvements worth more than 50 percent of the assessed value (Member of the Appraisal Institute [MAI] appraised value may be used at owner choice) of the original building. The intent of this chapter includes the following:

- (1) To ensure that street design and street improvements are consistent with, and implement applicable goals and policies of, the comprehensive plan.
- (2) To provide a safe street system that balances vehicular uses with transit, pedestrian, and bicycle uses.
- (3) To promote a traditional street system that maximizes vehicular route options, effectively carries vehicular traffic, and seeks to minimize congestion points.
- (4) To provide a street system that realizes multiple roles and opportunities in addition to carrying vehicles. These include, but are not limited to:
 - (a) Integrating and connecting neighborhoods and areas throughout the community, while not restricting the capacity or natural functions of wetlands, floodways, creeks and natural areas.
 - (b) Recognizing streets as a vital public space, to be completed with streetscape amenities like sidewalks, planter strips, street trees, curbs, and lighting.
 - (c) Positively shaping the form of the community.
 - (d) Promoting pedestrian, bicycle, and non-motorized transportation options, consistent with implementation of the comprehensive plan.
- (5) To provide fundamental street design standards, yet recognize that said standards will need to be complemented with specific street design and/or street construction details.
- (6) To provide the city engineer flexibility in applying street design and street improvement standards to meet existing conditions related to infill development; street repair/rehabilitation; and extensions of existing roadways, including street design, improvement, and construction limitations and opportunities associated therewith.

Development of properties on or tributary to substandard or unsafe (safety issues) roadways may, depending on the size and type of development, be cause for “off-site” improvements to the substandard or unsafe corridors, to include road drainage facilities. The city engineer shall determine when and if such conditions exist. At a minimum “half street improvements” will be required as a condition of development in and along the entire property as it abuts City rights-of-way.

This chapter provides *minimum* street design standards. Higher design and construction standards may be warranted due to localized design and construction parameters.

4.02 Streets

A. General

All plans submitted for channelization, traffic control, and road construction or reconstruction shall be prepared by a professional engineer licensed in the State of Washington. All street design must provide for the maximum traffic loading and capacity conditions anticipated. The width and grade of the pavement must conform to specific standards set forth herein for safety and uniformity.

The Fire Marshall shall approve the number and location of fire hydrants for new development and shall identify areas of new development that may be required to be sprinkled due to access or fire flow constraints.

In areas where the city specifies paving widths or improvement standards different than those listed in this chapter, the below standards shall be followed except where specifically modified elsewhere.

B. Design Standards

The design of streets and roads shall depend upon their type and usage. The design elements of streets shall conform to City standards as set forth herein and current design practice as set forth in Section 3.05. On existing streets, design speed shall be set at 5 miles per hour above the posted speed limit. In locations where the speed limit changes within 500 feet of the property, the higher value shall be used.

Street layout and plat design shall create efficient well-connected streets to integrate and interconnect the community of North Bend. Residential local access streets should provide for connections between neighborhoods and to collector streets whenever feasible. A grid to modified grid pattern of interconnected streets is the required pattern for new residential, commercial, and other development.

A number of geometric shapes should be utilized to enrich the modified grid form, for example: curves, triangles, greens/commons, T-intersections, and wedges. Intermittent curvilinear streets are encouraged to provide variation and interest as part of the modified grid network. Cul-de-sacs will be allowed only when physically constrained by sensitive areas such as wetlands or excessive natural grades, or to efficiently serve difficult-to-access areas due to other natural constraints. See Section 4.03D for the Minimum Street Design Standards.

- (1) Street profile grade should conform closely to the natural contour of the land. In some cases, a different grade may be required by the city engineer. Unless otherwise approved by the City, the minimum longitudinal slope shall be 0.50 percent; the maximum longitudinal slope shall be 15.0 percent. For Local Access streets, Maximum grade may be exceeded for short distances of 300 feet or less, upon showing that no practical alternative exists. Grade shall not exceed 20 percent. All roads with grades exceeding 15 percent shall be paved with Portland cement concrete.
- (2) Transverse slope of roadway shall be two percent each way from centerline of roadway.

- (3) The pavement and right-of-way width depend upon the street classification, and the transportation needs of the corridor. Section 4.03D shows the minimum widths allowed. Street widths shall be measured from face of vertical curb to face of vertical curb on streets with cement concrete curb and gutter.
- (4) In areas of questionable soil or ground conditions the public works director and/or city engineer may require the owner or developer to retain a licensed soils engineer to make soils tests and to provide additional recommendations for design of the sub-base and roadway sections. Over-excavation and backfill of roadway sub-base with appropriate material may be required to create a proper roadway base as deemed necessary by the public works director and/or city engineer.
- (5) In special circumstances, as may be specifically approved/required by the city engineer, due to local conditions and/or geometric restrictions, paving widths or improvement standards may be required which are different than those minimums specifically listed herein.
- (6) City policy generally requires connectivity of roadways within plats and throughout the City. To facilitate future development within the City, streets and rights-of-way shall be planned to give access to or permit the future subdivision of adjoining land. Temporary cul-de-sacs may be allowed when future extensions of the streets are anticipated. Streets shall be extended to the plat boundary to accommodate extensions into future subdivisions or adjoining land and the resulting temporary dead end street shall be barricaded pursuant to WSDOT standards, signed as described in Section 4.12, and provided with a temporary cul-de-sac bulb.

Temporary cul-de-sacs shall be designed pursuant to North Bend Standard Plan T-13. The cul-de-sac shall be paved. Removal of the temporary constructed cul-de-sac and construction of the extension of the curbs, gutters, and sidewalks, shall be the responsibility of the developer who extends the road. In designing streets, existing development, proposed development and possible future development shall all be considered in the recommendation of right-of-way widths, street widths, paving sections, sidewalks and other applicable standards.

- (7) Street jogs with centerline offsets less than 125 feet are prohibited.
- (8) Street grids are typically rectangular (“rectilinear”) but may include square patterns, modified rectilinear, or other distinct geometric shapes, and must connect with existing streets to form a cohesive network unless circumstances would prohibit such connections. Street rights-of-way shall be provided to a property edge for future connections.

Grid to modified grid blocks shall generally not exceed approximately 310 feet in width (alley) and 400 feet in length, centerline-to-centerline, except where in the opinion of the city engineer, extraordinary conditions justify a departure from the maximum. City-wide block sizes should allow a variety of lot widths and depths. Where necessary due to environmental constraints or other extenuating circumstances, block sizes may be extended in width or length, but shall not lose a pedestrian orientation and human scale. Street corridors, whether straight or moderately curved, should range in length from 500 to 1,000 feet, and then terminate in a T-intersection or otherwise. “Drag strip,” or continuous straight residential and nonresidential streets, shall be avoided.

- (9) Streets shall conform to all requirements of the latest edition of the International Fire Code as adopted and amended by the City, and all requirements of the Fire Marshal.
- (10) Access onto State Route 202 between milepost 28.28 and 30.17 shall meet or exceed WSDOT access standard requirements.
- (11) In addition to the above requirements, street design shall incorporate the following minimum requirements:
 - (a) All new utility systems such as power, gas, cable TV, fiber optics, and telephone shall be buried, except where topography or site conditions prohibit reasonable installation. See NBMC 19.06.060 for exceptions. Design and installation of the system shall be done by the franchised utility company. Design shall be submitted to the city engineer for review and approval prior to installation. All existing and new utilities, such as manholes, catch basins, valve boxes, and monument cases, shall be adjusted to finished roadway grade;
 - (b) Roads are to be sawcut before permanent patch is made or new AC pavement is installed abutting the existing road;
 - (c) The street system (in residential subdivisions and short subdivisions) shall be laid out with a minimum number of intersections with arterial streets. Arterial streets shall not intersect with other arterial streets at intervals closer than one thousand feet and no streets shall intersect at intervals closer than one hundred twenty-five feet, unless, in the judgment of the city engineer, an exception to this rule would be in the public interest and welfare;
 - (d) All streets, sidewalks, and alleys, both public and private, shall conform as a minimum to one of the herein referenced construction standards and shall be adjusted as necessary to match existing facilities, service the proposed development, and meet the needs of anticipated future development.
 - (e) All topsoil, organic, and structurally unsuitable soils shall be removed from beneath the proposed street and sidewalk section.

C. Submittal of Plans

- (1) All construction plans shall be submitted to the City and shall include the required minimum information, as identified in the City's standard plan submittal checklist.
- (2) The Standard Plan Notes, as shown and further referenced in the appendices, shall be included or referenced on any plans submitted to the City for construction approval dealing with street or drainage design.

4.03 Road Classifications

A. General

City roads are classified functionally as indicated in the Comprehensive Plan and as shown herein in Section 4.03D. Function and location are the controlling element for classification and shall govern right-of-way, road width, and road geometrics. Other given elements are typical.

B. Road Type

Roads are classified, per the GMA Comprehensive Plan, as follows:

- Major Arterials.
- Minor Arterials.
- Collector Streets.
- Local Access Streets.

When soil conditions support Low-Impact Development (LID) approaches, bioswales, rain gardens or similar technologies should be used within the traditional landscape strip area of streets, and specific allowances are shown below in Section 4.03D for Residential Local Access Streets. Other roadway sections may choose LID approaches and modifications to typical standards and shall be approved by the CED director and public works director.

C. Low Impact Development Street

In accordance with NBMC 18.50, developers are encouraged to implement low impact development practices. A suggested cross-section drawing has been included in these standards. Development that proposes such systems shall show consistency with the most current King County Surface Water Design Manual (KCSWDM), and shall meet the requirements of city code. The proposal shall be approved by the CED director and the public works director.

Developers are encouraged to propose street designs that implement the intent of low impact development using the suggested cross-section as a starting point. Requirements for LID stormwater approaches (in addition to or in conjunction with the guidance documents referenced above) are as follows:

- (1) Landscaping shall include native, noninvasive, low-maintenance plants suited to the moisture regime of their location within the LID treatment.
- (2) Street trees shall be provided per the street tree standards in Chapter 18.18 NBMC. Bio-channels of 6 feet or wider shall stagger location of trees in swale area on either side of the swale.
- (3) Proposed LID features and landscape strips shall be comprised of at least 60 percent native vegetation with the remaining as grass, unless otherwise approved by the director due to specific site circumstances.
- (4) Minimum plant spacing (o.c.) for most species shall be as follows:
 - (a) Herbaceous plants – 12 inches;
 - (b) Large shrubs and small trees – 4 feet to 10 feet;
 - (c) Shrubs – 2 feet to 4 feet;
 - (d) Groundcover – 12 inches;
 - (e) Seeding with approved mixture in SWDM Table 6.3.1.C to the prepared seed bed is required at a rate of 80 pounds/acre.

- (5) Construction and plant installation must be completed prior to completion of the project. An 80 percent survival of all grasses and plants immediately and two years following installation is required, consistent with NBMC 18.18.150, Maintenance of Plant Materials.
- (6) Maintenance of vegetation and stormwater function shall be the responsibility of the homeowners' association.
 - (a) The applicant shall develop a long-term maintenance program, to be reviewed and approved by the city prior to final plat approval, with clear and enforceable guidelines to best maintain the LID features of the plat. The applicant shall provide a guide that may be supplemented and distributed by the homeowners' association to lot owners that explains the purpose and maintenance of these areas within the plat.
 - (b) A note(s) shall be placed on the face of each final plat that clearly describes and details the long-term maintenance requirements of the LID features of the plat and provides for guaranteed performance of said features. These requirements shall also be included in the neighborhood's covenants, conditions and restrictions (CC&Rs), requiring proper assessments for maintenance and upkeep of said features. The final plat note shall be clear that in the event the homeowners' association does not properly maintain said features, the city will perform the necessary maintenance and charge the owners' association for time and expense of the maintenance work.
 - (c) An educational packet, to be reviewed and approved by the City of North Bend prior to final plat approval, shall be provided to all new homeowners explaining the hydrologic function and the long-term maintenance needs and requirements of the LID features.
- (7) Sidewalks may be constructed of permeable concrete as approved by the PW Director and CED Director.
- (8) Vertical curbs shall be provided adjacent to parking and planter strip areas. Flush curbs may be used when adjacent to an LID feature. Curbs shall be reviewed and approved based upon adjacent uses by the CED and public works director.
- (9) LID stormwater facilities designed for infiltrating runoff shall be constructed in a manner that minimizes the impact on the underlying soils' ability to infiltrate. In addition, LID projects that rely on the infiltration of stormwater runoff shall include provisions for collecting and conveying overflow runoff (runoff that does not infiltrate quickly enough to prevent localized flooding) away from the streets and homes.

D. Street Design Standards

Specific design criteria for arterial, collector, and local access streets are included in Tables 4.1 through 4.5. Special design criteria have been established for sections of North Bend Way, Cedar Falls Way, 468th Avenue SE, SE 140th Street, and Park Street, dependent upon the location. Table 4.6 identifies AASHTO sight distance criteria, based on design speed. Table 4.7 is a separate table provided for woonerf design criteria.

- (1) Specific sections of North Bend Way and other arterials have unique design criteria, as shown in Tables 4.1 and 4.2:
 - (a) Cedar Falls Way;
 - (b) North Bend Way (Between North Bend Way Bridge and East Park Street);
 - (c) North Bend Way (East Park Street to Cedar Falls Way and at the SE Mount Si road intersection adjacent to properties zoned neighborhood business (NB) to the east and west to cemetery);
 - (d) North Bend Way (Cedar Falls Way to SE 140th Street, excluding SE Mount Si road intersection); and
 - (e) North Bend Way (SE 140th Street to 468th Avenue SE).
- (2) Specific sections of various collector streets have unique design criteria, as shown in Tables 4.3 and 4.4:
 - (a) 468th Avenue SE (North of SE 146th Street to SE 14th Street);
 - (b) 468th Avenue SE (North of SE 144th Street to SE Middle Fork Road;
 - (c) SE 140th Street from North Bend Way to Middle Fork Road intersection;
 - (d) Park Street from Bendigo Boulevard to Main Street;
 - (e) Park Street from Main Street to Healy Avenue S; and
 - (f) Park Street from Healy Avenue S to North Bend Way.
- (3) Also, local access streets have been divided into several specific classifications:
 - (a) Residential Local Access Streets and Cul-de-Sacs for Cottage Housing and Multiple Family;
 - (b) Residential Local Access Streets for Low Density Residential;
 - (c) Residential Local Access Streets – Low-Impact Design, Integrating Stormwater within the Rights-of-Way; and
 - (d) Woonerf Route for Homes Fronting to Open Space.

STREETS, PEDESTRIAN PATHS, AND BIKEWAYS

TABLE 4.1

Arterial/Cedar Falls Way Street Design Standards

		Arterials (Major and Minor)	Cedar Falls Way (North Bend Way to Maloney Grove SE)	Cedar Falls Way (Maloney Grove Ave SE to 436 th Ave SE)
Criteria⁽¹⁾				
A. Minimum Right-of-Way		76'	76'	91'
B. Minimum Pavement Width	2 lanes	32'	-	-
	3 lanes	44' ⁽²⁾	44' ⁽²⁾	44' ⁽²⁾
	5 lanes	66' ⁽²⁾	66' ⁽²⁾	-
C. Bicycle Lanes		5'	5'	5'
D. Parking Lanes		As required	As required	-
E. Concrete Curb & Gutter		Vertical	Vertical	Vertical ⁽⁵⁾
F. Landscape Strips		7' ⁽³⁾⁽⁴⁾	7' ⁽³⁾⁽⁴⁾	7' min. South Side ⁽³⁾ 7' min. North Side ⁽³⁾⁽⁶⁾
G. Sidewalks		8' ⁽³⁾⁽⁴⁾	8' ⁽³⁾⁽⁴⁾	8' South Side ⁽³⁾ 8' Trail North Side ⁽³⁾⁽⁵⁾⁽⁶⁾
H. Curb Radii		35'	35'	35'
I. Lighting		See Section 4.19	See Section 4.19	See Section 4.19
J. Trail		As required	As required	-
K. Design Speed ⁽⁷⁾		40 mph	40 mph	35 mph

Notes:

- (1) Within the above parameters, geometric design requirements shall be determined for specific roads consistent with AASHTO.
- (2) Includes 12-foot-wide left turn lane, or planted median if turn lane is not required.
- (3) If additional right-of-way width is available/provided, the sidewalk and/or landscaping strip widths shall be increased.
- (4) Subject to City approval, when arterial is located adjacent to commercial/retail uses, the sidewalk design shall incorporate street tree and/or tree grate design, minimum of 4 feet by 5 feet to match downtown core.
- (5) Adjacent to the Public Works site, excess forested right-of-way exists and shall be retained. An 8-foot meandering paved trail shall be constructed in lieu of the typical curb/gutter, planting strip and sidewalk.
- (6) Adjacent to parcels zoned Cottage Residential, a minimum 30-foot landscape buffer shall be provided and dedicated to the City. An existing 15-foot sewer easement exists on the northern edge of the right-of-way and this area shall be planted with Type II landscaping per NBMC 18.18, with due regard to the sewer line. The remaining 15-foot buffer shall preserve existing native vegetation, trees, and significant trees to the maximum extent possible. Supplemental plantings in this buffer shall be required to achieve a Type I landscape standard per NBMC 18.18.
- (7) Design speed serves as a basis for determining geometric elements of new roads and does not imply posted or legally permissible speeds. Design speed on existing roads is 5 mph over the posted speed limit or as tabulated above, whichever is less.

TABLE 4.2

North Bend Way Street Design Standards

	North Bend Way (Bridge to East Park Street)	North Bend Way (East Park Street to Cedar Falls Way and at Mt. Si Road along NB Zone ⁽¹²⁾)	North Bend Way (Cedar Falls Way to SE 140 th Street)	North Bend Way (SE 140 Street to 468 th Avenue)
Criteria⁽¹⁾				
A. Minimum Right-of-Way	76'	70'	76'	70'
B. Minimum Pavement Width	50' ⁽²⁾	50' ⁽¹¹⁾	44' ⁽²⁾	44' ⁽²⁾
C. Bicycle Lanes	Sharrow ⁽⁴⁾	4.5'	5'	5'
D. Parking Lanes	8'	8' North Side Only	As required	⁽⁹⁾
E. Concrete Curb & Gutter	Vertical	Vertical	Vertical North Side Only	Vertical North Side Only
F. Landscape Strips	-	Street Trees South Side	13' Bio-Channel North Side ⁽³⁾ Street Trees South Side	13' Bio-Channel North Side ⁽³⁾
G. Sidewalk	13' ⁽³⁾⁽⁵⁾	13' North Side ⁽³⁾⁽⁵⁾ Tanner Trail South Side ⁽⁸⁾	8' North Side Tanner Trail South Side ⁽⁸⁾	8' North Side
H. Curb Radii	35'	35'	35'	35'
I. Lighting	⁽⁶⁾	⁽⁶⁾	See Section 4.19	See Section 4.19
J. Trail	-	South Side ⁽⁷⁾	South Side ⁽⁷⁾⁽⁸⁾	-
K. Design Speed ⁽¹⁰⁾	35 mph	35 mph	35 mph	35 mph

Notes:

- (1) Within the above parameters, geometric design requirements shall be determined for specific roads consistent with AASHTO.
- (2) Includes 12-foot-wide left turn lane, or planted median if turn lane is not required.
- (3) If additional right-of-way width is available/provided, the sidewalk and/or landscaping strip/bio-channel widths shall be increased.
- (4) Sharrow bike indicator pavement markings shall be provided.
- (5) Street tree species shall be consistent with downtown core, pursuant to Chapter 18.18 NBMC.
- (6) Ornamental street light poles and fixtures on North Bend Way shall match downtown core light fixtures.
- (7) Match existing Tanner Trail section. On south side, street trees shall be of a medium or large species planted in the available swale area.
- (8) Tree species along Tanner Trail shall be Grand Fir, Douglas Fir, Western Red Cedar, or Dogwood. Native evergreen shrubs shall include Snowberry, Thimbleberry, Red Flowering Currant, Tall Oregon Grape, Nootka Rose, and Oceanspray.
- (9) Subject to City approval, additional right-of-way may be obtained or utilized on the south roadway edge, for emergency parking on the event of a pass closure or other.
- (10) Design speed serves as a basis for determining geometric elements of new roads and does not imply posted or legally permissible speeds. Design speed on existing roads is 5 mph over the posted speed limit or as tabulated above, whichever is less.
- (11) Includes 11-foot-wide left turn lane, or planted median if turn lane is not required.
- (12) Includes the SE Mount Si Road Intersection adjacent to properties zoned Neighborhood Business (NB) to the East and West to Cemetery.

TABLE 4.3
Collector/468th Avenue SE Street Design Standards

	Collectors	468th Ave SE – North of SE 146th Street to SE 144th Street	468th Ave SE – North of SE 144th Street to SE Middle Fork Road
Criteria⁽¹⁾			
A1. Minimum Right-of-Way	68'	50'	50'
A2. Landscape Easements	-	25' East Side 30'-40' West Side	-
B. Landscape Buffers	-	10' Type 1 West Side – Between R-O-W and Landscape Easement	20' Type 1 East Side 40' Type 2 West Side
C. Minimum Pavement Width	38'	30' ⁽⁴⁾	30' ⁽⁶⁾
D. Parking Lanes	8'	-	-
E. Concrete Curb & Gutter	Vertical ⁽²⁾	Traffic Curb	-
F. Landscape Strips	6'	8' East Side 17' West Side	36' West Side ⁽⁷⁾
G. Sidewalks	8'	6' East Side 12' Shared Use Path West Side	12' Shared Use Path West Side
H. Curb Radii	35'	35'	35'
I. Lighting	See Section 4.19	See Section 4.19	See Section 4.19
J. Native Plants & Storm Treatment	-	Areas Beyond Sidewalks ⁽⁵⁾	20' East Side 10' Beyond Sidewalk West Side
K. Design Speed ⁽³⁾ mph	30	30	30

Notes:

- (1) Within the above parameters, geometric design requirements shall be determined for specific roads consistent with AASHTO.
- (2) Vertical curb and gutter unless low-impact development techniques are approved.
- (3) Design speed serves as a basis for determining geometric elements of new roads and does not imply posted or legally permissible speeds. Design speed on existing roads is 5 mph over the posted speed limit or as tabulated above, whichever is less.
- (4) Two 15-foot travel lanes separated by 12-foot landscaped median, inclusive of curbs.
- (5) Areas between sidewalks and private site improvements (parking and buildings) shall be landscaped with native plants and used for stormwater treatment.
- (6) Includes two 11-foot travel lanes plus 4-foot paved shoulders.
- (7) Landscaping with native plants and for stormwater treatment located between roadway and sidewalk.

TABLE 4.4
SE 140th Street & Park Street Design Standards

	SE 140 th Street from North Bend Way to Middle Fork Road	Park Street from Bendigo Blvd to Main Street	Park Street from Main Street to Healy Avenue	Park Street from Healy Avenue S to North Bend Way
Criteria⁽¹⁾				
A. Minimum Right-of-Way	64'	61'	60'	63'
B. Minimum Pavement Width	32'	41.5' ⁽⁴⁾	43' ⁽⁴⁾	46'
C. Parking Lanes	-	7.5' One Side Only	-	7.5'
D. Bike Lanes	5'	-	4.5'	4.5'
E. Concrete Curb & Gutter	Vertical	Vertical ⁽⁷⁾	Vertical ⁽⁷⁾	Vertical ⁽⁷⁾
F. Landscape Strip	8' North Side 8-10' Biochannel South Side	-	-	-
G. Sidewalk	6' North Side 8' HMA Trail South Side	6.5' North Side ⁽⁶⁾ 13' South Side ⁽⁶⁾	8' ⁽²⁾	8' ⁽²⁾
H. Curb Radii	35'	35'	35'	35'
I. Lighting	See Section 4.19	See Section 4.19	See Section 4.19	See Section 4.19
J. Native Plants & Storm Treatment	-	Street Tree ⁽⁵⁾ - <i>Parrotia Persica cv</i>	Street Tree ⁽⁵⁾ - <i>Parrotia Persica cv</i>	Street Tree ⁽⁵⁾ - <i>Parrotia Persica cv</i>
K. Design Speed ⁽³⁾ mph	30	30	30	30

Notes:

- (1) Within the above parameters, geometric design requirements shall be determined for specific roads consistent with AASHTO.
- (2) If additional right-of-way width is provided, the sidewalk widths shall be increased to a maximum of 15 feet.
- (3) Design speed serves as a basis for determining geometric elements of new roads and does not imply posted or legally permissible speeds. Design speed on existing roads is 5 mph over the posted speed limit or as tabulated above, whichever is less.
- (4) Includes 12-foot-wide left turn lane.
- (5) Street tree species shall be as indicated above or as otherwise approved by the CED Director, pursuant to Chapter 18.18 NBMC. Tree pits shall be a minimum of 4' by 5' (larger when space is available) and should use flexipave for fill or other approved material.
- (6) Sidewalk dimension includes curb.
- (7) Vertical curb and gutter unless low-impact development techniques are approved.

TABLE 4.5

Local Access Street Design Standards

	Residential Local Streets and Cul-De-Sacs For Cottage Housing and Multi-Family⁽⁶⁾	Local Streets - Low Density Residential⁽⁶⁾	Residential Local Streets - Low-Impact Design⁽⁴⁾⁽⁶⁾
Criteria⁽¹⁾			
A. Minimum Right-of-Way	58'	54'	62' ⁽³⁾
B. Minimum Pavement Width	34'	34'	34'
C. Parking Lanes	8'	8'	8'
D. Concrete Curb & Gutter	Vertical ⁽²⁾	Vertical ⁽²⁾	Vertical ⁽²⁾
E. Landscape Strips	5'	4'	5' One Side Only
F. Sidewalks	6'	5'	5' ⁽⁵⁾
G. Curb Radii	25'	25'	25'
H. Lighting	See Section 4.19	See Section 4.19	See Section 4.19
I. Minimum Biochannel	-	-	11' ⁽⁴⁾
J. Design Speed ⁽⁷⁾ mph	25	25	25

Notes:

- (1) Within the above parameters, geometric design requirements shall be determined for specific roads consistent with AASHTO.
- (2) Vertical curb and gutter unless low-impact development techniques are approved.
- (3) Right-of-Way width as necessary to accommodate LID features.
- (4) LID features shall meet the requirements of Section 4.03C. Biochannel shall be utilized on one or both sides of roadway, and placed between sidewalk and roadway and shall be sized as necessary to accommodate the required treatment. Side slopes shall not exceed 3H:1V and the channel bottom shall be no less than 18 inches wide. Such LID features shall be placed between the roadway and sidewalk, but may be placed behind the sidewalk to retain a significant tree or other critical area.
- (5) Sidewalk shall meander with the contour of the biochannel/rain garden.
- (6) Cul-de-sacs will be allowed only when there are physical constraints, such as wetlands or excessive natural grade, or to efficiently serve difficult-to-access areas due to natural constraints.
- (7) Design speed serves as a basis for determining geometric elements of new roads and does not imply posted or legally permissible speeds. Design speed on existing roads is 5 mph over the posted speed limit or as tabulated above, whichever is less.

STREETS, PEDESTRIAN PATHS, AND BIKEWAYS

TABLE 4.6

AASHTO Sight Distance Criteria

Design Speed (mph)	25	30	35	40	45
Horizontal Curvature, Radius, (Feet)	(1)	300	460	(1)	(1)
Stopping Sight Distance (Feet) ⁽³⁾	155	200	250	305	360
Entering Sight Distance (Feet) ⁽⁴⁾	280	335	390	445	500
Residential Driveway ESD	150	200	250	325	-

Notes:

- (1) Local access streets that terminate in a permanent cul-de-sac or form shot loops off an adjacent local access street may use the following minimum centerline radii:
- Up to 75 degree curve delta – 100 feet
 - 75 degree curve delta and over – 55 feet
- (2) Horizontal curvature to be designed by Engineer.
- (3) Driver eye height = 3.5 feet, object height = 2.0 feet, distances require adjustment per AASHTO for grades greater than 3 percent.
- (4) Driver eye height = 3.5 feet, measured 10 feet back from face of curb or edge of traveled land. Object height= 4.25 feet, distances require adjustment per AASHTO for approach grades greater than 3 percent. Entering sight distance for right turns may be reduced per AASHTO.

TABLE 4.7

Woonerf Design Criteria

Right-of-Way Width	<p>With optional parking lane – 27 feet: vertical curb & gutter on residential side only for parking barrier, at-grade 12-inch cement concrete border on open space side of woonerf, multi-use woonerf for remainder of open space including space for one 7.5-foot parking lane and two 9-foot travel lanes (shared with pedestrians).</p> <p>Without optional parking lane – 20 feet: no curbs, two at-grade 12-inch cement concrete borders, two 9-foot travel lanes.</p> <p>Open space side of woonerf is signed with No Parking – Fire Lane. Width narrows to 15 feet (without parking lane) at driveway apron to the primary street.</p> <p>Park or common open space adjacent to woonerfs shall only accommodate the stormwater runoff originating from the woonerf area.</p>
Paved Roadway Width Inside Curbs/Borders	25.5 feet with optional parking lane, 18 feet without parking lane. Signed “No Parking – Fire Lane” on open-space side of roadway.
Cement Concrete Traffic Curb and Gutter or Border	<p>With optional parking lane: vertical curb & gutter on residential side, except as when best available low-impact development techniques used as approved by the City. At-grade 12-inch-wide by 8-inch-deep cement concrete border on park side.</p> <p>Without optional parking lane: at-grade 12-inch wide by 8-inch deep cement concrete border on both sides.</p>
Sidewalk and ADA Ramps	Not applicable. Sidewalk and drive area are shared. Area shall be signed “Caution. Pedestrians Share Roadway.” ADA ramp is provided at driveway apron into Woonerf.
Curb Radii	25 feet.
Maximum Dwelling Units Accessed	Limited to serving access to approximately 16 homes.

4.04 Street Frontage Improvements

- A. All industrial, commercial, and residential development shall install street frontage improvements at the time of construction. Such improvements shall include vertical concrete curb and gutter, concrete sidewalk, street storm drainage, street lighting system, utility relocation, landscaping and irrigation, undergrounding aerial utilities and street pavement widening all per these Standards. Plans shall be prepared and signed by a licensed engineer currently registered in the State of Washington.
- B. All frontage improvements shall be made across the full frontage of the property.
- C. Exceptions. The following shall be exempt from constructing frontage improvements:
 - (1) Projects wherein the cost of the street improvements along the property frontage is greater than 20 percent of the cost of the cumulative building alterations (including impact fees) in any 5-year period according to the following:
 - a. Street improvement costs shall include, but not be limited to, roadway asphalt, storm drainage, curb and gutter, landscape strip, street trees, and sidewalk.
 - b. For properties with multiple street frontages, the average length of the combined multiple street frontages will be used for the purposes of determining whether street improvements are required. If street improvements are required, the cost of the improvements along any of the multiple street frontages shall not exceed 20 percent of the cost of the cumulative building alterations (including impact fees) in any 5-year period.
 - (2) When improvements cannot be reasonably accomplished in a timely manner a recorded agreement (performance surety or equal) on forms provided by the City shall be completed which provide for these improvements to be installed at a later date by the proponent.

New or improved homes on existing single-family lots may be exempt from providing “urban” type street improvements, but may be subject to “rural” type improvements provided these are consistent with the surrounding roads.

- D. Right-of-way shall be conveyed to the City on a recorded plat or by a right-of-way dedication deed, even if the project is exempt from street frontage improvements under C. above. All costs of same to be borne by the property owner/developer.

4.05 Private Streets

A. General

While community street requirements are usually best served by public streets, owned and maintained by the City, private streets may be appropriate for some local access streets.

B. Conditions

Private streets shall be allowed to serve existing recorded lots when the following conditions exist:

- (1) The existing lot does not abut a public street right-of-way; and
- (2) The only access to the lot is by an easement across an adjacent lot or lots not under the ownership of the lot or lots to which the private street is to provide service; or across property under the same ownership when there is insufficient right-of-way width; and
- (3) The private street will not serve more than four single-family dwelling units when the property to be served has been developed to its fullest extent.

Private streets shall be allowed to serve new lots created under the short plat or subdivision ordinances of the city if the following conditions exist:

- (4) There is insufficient width (less than 50 feet) under single ownership to construct a standard public street in accordance with the city's standards for that zoning district; and
- (5) The ultimate number of lots to be served by the private street is four or less dwelling units or dwelling unit equivalents; and
- (6) That in the judgment of the Public Works Director or his designee, there is not a need for a through connection to collector streets beyond the border of the property to be served.

C. Approval

Private streets may be approved by the Director only when they are:

- (1) Permanently established by right-of-way, tract or easement providing legal access to each affected lot, dwelling unit, or business and sufficient to accommodate required improvements, to include provision for future use by adjacent property owners when applicable; and
- (2) Built to these standards, as set forth herein, or secured under the provisions of the subdivision regulations; and

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- (3) Accessible at all times for emergency and public service vehicle use (this precludes to use of gates on private streets); and
- (4) Not obstructing, or part of, the present or future public neighborhood circulation plan developed in processes such as the City of North Bend comprehensive plan, or capital improvement program; and
- (5) Not going to result in land locking of present or future parcels; and
- (6) Not needed as public roads to meet the minimum road spacing requirements of these standards; and
- (7) Maintained by a capable and legally responsible owner or homeowners' association or other legal entity made up of all benefited property owners, under the provisions of the applicable codes. The City of North Bend will not maintain (including snow & ice removal) or repair private streets; and
- (8) Clearly described on the face of the plat, short plat, or other development authorization and clearly signed at street location as a private street, for the maintenance of which the City of North Bend is not responsible.

D. Acceptance of Private Streets

The City will not accept private streets for maintenance as public streets until such streets are brought into conformance with current City standards including Section 4.03. This requirement will include the hard surface paving of any streets originally surfaced with gravel.

The City will not accept private streets within short plats when the roads providing access to the plat are private and already have the potential to serve more than the number of lots specified in subsection 4.06 B. Short plats proposed on properties to which the access is over private streets that do not meet the standards in this section shall be denied.

E. All private streets shall be constructed in accordance with the standards set forth in this Chapter, except as modified herein:

- (1) The streets shall have an unobstructed driving width of not less than 20 feet;
- (2) The roadway grade shall not exceed ten percent; provided, however, the City's Public Works Director may allow a steeper grade if, in his/her professional opinion
 - a. The structural integrity of the road is not jeopardized by the steeper grades; and
 - b. The public safety is adequately protected and in no way compromised by the steeper road grade. The engineer may require over-stringent construction standards including the paving of the street if he deems it

necessary in order to protect the structural integrity of the driving surface and protect the public safety as a result of the steeper grade;

- (3) The private street shall have an overhead clearance of not less than 14 feet, 6 inches;
- (4) If the private street is to exceed 150 feet in length, then it shall be provided with a cul-de-sac or other suitable turnaround;
- (5) A road maintenance agreement on forms provided by the city shall be executed and recorded at the time of street approval and shall be covenants running with the lands;
- (6) Building setbacks, where applicable, shall be measured from the private street right-of-way;
- (7) The minimum right-of-way width shall be 20 feet. Additional right-of-way may be required to allow for storm drainage or other public utilities. Utilities shall be located outside of the 20-foot surface of the roadway. Utility easements shall be provided to the city as needed;
- (8) Front yard setbacks, measured from the right-of-way line shall apply to buildings fronting on a private street. For corner lots that will be adjacent to a private street, the front yard setbacks shall be observed along the private and public street unless the property owner constructs a four-foot-high fence, or its equivalent, along the full length of the former lot on the private street side. The building setback from the private street shall then be the same as the side yard setback;
- (9) The private street shall be paved from the paved portion of the public street to a distance 25 feet from the edge of the public street right-of-way;
- (10) The standards set forth herein shall be minimum requirements as to slope and materials. Greater slope and materials may be required if in the opinion of the city engineer they are necessary in order to maintain the structural integrity of the private street.

4.06 Cul-de-Sacs, Hammer-Heads and Eyebrows

- A. Whenever a street serves more than six lots or extends more than 150 feet from centerline of accessing street to farthest extent of surfaced traveled way a widened “bulb” or hammerhead shall be constructed as shown in the drawings.
- B. Any permanent cul-de-sac shall not serve more than 13 potential single-family dwelling units. Cul-de-sac distances should not exceed 450 feet except where topographic or other physical constraints prevent an interconnected street pattern. Cul-de-sacs shall not exceed 600 feet.

- C. Cul-de-sacs, T-shaped, and Y-shaped turnarounds shall include pedestrian and/or bicycle connections to adjoining properties whenever possible. The city engineer may require an off-street walk or an emergency vehicle access to connect a cul-de-sac at its terminus with other streets, parks, schools, bus stops, or other pedestrian traffic generators, if the need exists.
- D. Temporary cul-de-sacs may be allowed when future extensions of the streets are anticipated. Temporary cul-de-sacs shall be designed pursuant to North Bend Standard Plan T-13. If a street temporarily terminated at a property boundary serves more than six lots or is longer than 150 feet, a temporary cul-de-sac shall be constructed near the plat boundary. The paved cul-de-sac shall be 90 feet in diameter. Removal of the temporary cul-de-sac and reconstruction of the street shall be the responsibility of the developer who extends the road. Reconstruction shall include demolition and wastehaul of all temporary improvements, grading and subgrade preparation, extension and installation of storm drainage (if required), curbs, gutters, sidewalks, and other improvements to make for a complete and whole street section.
- E. The maximum cross slope in a bulb shall not exceed six percent.
- F. A “hammer head” turnaround shall only be approved by variance, and shall not be used to serve more than 9 lots. Hammerheads shall only be used in place of a bulb when site constraints (critical areas, slope, etc.) preclude the practical use of a bulb.

4.07 Intersections

- A. Traffic control devices will be as specified in the Manual on Uniform Traffic Control Devices (MUTCD) or as may be specifically modified by the City Public Works Director as a result of appropriate traffic engineering studies.
- B. Street intersections shall be laid out so as to intersect as nearly as possible at right angles, and in any event, no street shall intersect with any other street at an angle of less than 85, or more than 95 degrees. Sharp angled intersections shall be avoided. For safe design, the following types of intersection features should be avoided:
 - (1) Intersections with more than four intersecting streets;
 - (2) “Y” type intersections where streets meet at acute angles;
- C. On sloping approaches at an intersection, landings shall be provided with grade not to exceed one foot difference in elevation for a distance of 30 feet approaching any arterial or collector or 20 feet approaching an local access street, measured from nearest right-of-way line (extended) of intersected street.

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- D. Spacing between adjacent intersecting streets, whether crossing or T-connecting, shall be as follows:

When Highest Classification involved is:	Minimum centerline offset shall be:
Principal arterial	1,000 feet
Minor arterial	500 feet
Collector	240 feet
Local Access	125 feet

- E. Curb radii at intersections shall be 35 feet for any street connecting to a Arterial or Collector and 25 feet at all other intersections. Minimum right-of-way radius shall be 25 feet.
- F. Where alleys or woonerfs intersect with streets, curbs on intersecting street will be painted for a distance of 20 feet in both directions from alley or woonerf intersection with high-visibility industrial enamel safety yellow and sight obstructions will be limited at discretion of city for safety of drivers and pedestrians negotiating the alley or woonerf.

4.08 Half Streets

A “half-street” improvement is typically constructed as a partial street along the common side property line of a developing parcel, when the adjacent parcel is undeveloped or underdeveloped. The intent is to have the first developing parcel establish the location of the street that will eventually serve both parcels. In this situation, the first developing parcel shall construct a full-width street in accordance with its associated classification, including drainage and curb-and-gutter on both sides. However, the sidewalks and planter strip on the side opposite the development shall not be required. The adjacent parcel will complete the remaining improvements at a later date, when it is developed.

No requirements in this section shall force the developer to obtain or acquire a dedication of additional right-of-way or easements from another property owner.

4.09 One-Way Streets

Local access streets, including loops, may be designated one-way upon a finding by the city engineer that topography or other site features make two-way traffic impractical.

4.10 Woonerfs

- A. Woonerfs are shared access routes for use by pedestrians, bicyclists and vehicles at a very low speed, with pedestrians having the dominant role. Woonerfs may be incorporated in new single-family and multi-family residential projects to provide driveway access to the front of homes when such homes front to a park or common open space under the following conditions:
- (1) The woonerf may be used as an alternative to a cul-de-sac for providing access to a maximum of 16 homes in locations where providing standard streets would create excessive paving.

- (2) Woonerfs must connect to a street at both ends, and must be adjacent to a park or common open space area on one side, and shall only accommodate the stormwater runoff originating from the woonerf area.

4.11 Bus Zones and Turn-Outs

During the design of arterials and collectors, the designer shall contact the service provider, and the local school district to determine bus zone (stop) locations and other bus operation needs. The road project shall provide accessible landing pads at designated bus zones as per Americans with Disabilities Act (ADA) and where required shall include turn-outs and shelter pads. Pedestrian and wheelchair access improvements within the right-of-way to and from the bus loading zone or turn-out from nearby businesses or residences shall also be provided as part of the road improvement. Surfacing requirements may also be affected, particularly on shoulders.

4.12 Access and Circulation Requirements

- A. A future street plan shall:
 - (1) Be filed by the applicant in conjunction with an application for a subdivision or development, when required by the city engineer. The plan shall show the pattern of existing and proposed land division and shall include other parcels within 1-quarter mile surrounding and adjacent to the proposed land division. A street proposal may be modified when subsequent subdivision proposals are submitted.
 - (2) Identify existing or proposed bus routes, pullouts or other transit facilities, bicycle routes and pedestrian facilities on or within 500 feet of the site.
- B. All local access and collector streets which abut a development site shall be extended within the site to provide through circulation when not precluded by environmental or topographical constraints, existing development patterns or strict adherence to other portions of the City standards. Residential local access streets should provide for multiple vehicle connections/access to collector streets, whenever feasible. A street connection or extension is considered precluded when it is not possible to redesign or reconfigure the street pattern to provide required extensions. In the case of environmental or topographical constraints, the mere presence of a constraint is not sufficient to show that a street connection is not possible. The applicant must show why the constraint precludes some reasonable street connection.
- C. The location, width and grade of all streets shall conform to the approved street plan and shall be considered in their relation to existing and planned streets, to topographic conditions, to public convenience and safety, and in their appropriate relation to the proposed use of the land to be served by such streets. Such a plan shall be based on the type of land use to be serviced, the volume of traffic, the capacity of adjoining streets and the need for public convenience and safety.

- D. Where the location of a street is not shown in an approved street plan, the arrangement of streets in a development shall either:
- (1) Provide for the continuation or appropriate projection of existing streets in the surrounding areas, or;
 - (2) Conform to a plan adopted by the City Council if it is impractical to conform to existing street patterns because of topographical or other existing conditions of the land.
- E. All development shall provide an internal network of connecting streets that minimize travel distances within the development.
- F. To give access or permit a satisfactory future division of adjoining land, streets shall be extended to the boundary lines of adjacent vacant or underdeveloped properties, and
- (1) These extended streets or street stubs to adjoining properties are not considered to be permanent cul-de-sacs since they are intended to continue as through streets at such time as the adjoining property is developed. A temporary cul-de-sac shall be constructed in accordance with Section 4.06.
 - (2) A Type III barricade shall be constructed at the end of the street by the developer which shall not be removed until authorized by the city engineer, the cost of which is to be included in the street construction cost. The sign shall read:

**THIS STREET TO BE EXTENDED WITH FUTURE
DEVELOPMENT BEYOND THIS POINT.**

4.13 Access Requirements

- A. In order to provide for increased traffic movement on arterial and collector streets and to eliminate turning movement conflicts, the city engineer may restrict the location of driveways on streets and require the location of driveways be placed on adjacent streets upon the finding that the proposed access would:
- (1) Cause or increase existing hazardous traffic conditions; or
 - (2) Provide inadequate access for emergency vehicles; or
 - (3) Cause hazardous conditions to exist which would constitute a clear and present danger to the public health, safety, and general welfare.
- B. In order to eliminate the need to use public streets for movements between commercial or industrial properties, parking areas shall be designed to connect with parking areas on adjacent properties unless not feasible. The city engineer shall require access easements between properties where necessary to provide for parking area connections.

- C. In order to facilitate pedestrian and bicycle traffic, access and parking area plans shall provide efficient sidewalk and/or pathway connection between neighboring developments or land uses.
- D. Proposed street or street extensions shall be located to provide direct access to existing or planned transit stops or other neighborhood activity centers, such as schools, shopping areas, and parks.

4.14 Street Names

The developer must check with the City regarding the naming of streets. This should be done at the time the preliminary plat is submitted and again upon approval of the final plat. The city engineer will insure that the name assigned to a new street is consistent with policies of the City and in accordance with NBMC 12.12.050.

An address number will be assigned by the city building official or designee to all new buildings at the time the building permit is issued in accordance with NBMC 12.12.040. It is then the owner's responsibility to see that the house numbers are placed clearly and visibly at the main entrance to the property or at the principal place of ingress.

4.15 Signing

All street signs shall be designed by the developer and submitted for review to the city engineer. Upon approval and at the appropriate time, the City shall direct the developer to install the signs, as approved. Traffic control signing shall comply with the provisions as established by the U.S. Department of Transportation Manual on Uniform Traffic Control devices (MUTCD).

4.16 Slope, Wall and Drainage Easements

Either the functional classification or particular design features of a road may necessitate slope, sight distance, wall or drainage easements beyond the right-of-way line. Such easements may be required by the city engineer in conjunction with dedication or acquisition of right-of-way.

4.17 Pavement Markings

Pavement markings, markers or striping shall be used to delineate channelization, lane endings, crosswalks and longitudinal lines to control or guide traffic per MUTCD. All pavement markings shall be designed by the developer and submitted for review to the city engineer. Upon approval and at the appropriate time, the City shall direct the developer to install the markings, as approved. Channelization plans or crosswalk locations shall be approved by the city engineer.

All long line markings (centerline, edge line, lane line, etc.) shall be reflective hot- or cold-applied, sprayed or extruded paint. All other pavement markings (crosswalk, stop line, arrows, railroad markings, bicycle lane symbols, etc.) shall be reflective Type-A liquid hot-applied adhesive thermoplastic. All markings shall include glass beads. See Division 8 of WSDOT Standard Specifications for marking application procedures.

Crosswalks, where required by the city engineer, shall be stenciled with a piano key pattern and infilled with white thermoplastic as provided by Integrated Paving Concepts, Inc., PMB 48, 936

Peace Portal Drive, Blaine, WA 98230, or approved equal. Treatment for the crosswalk shall be as selected by the City's Public Works Director.

Where solid double yellow striping is required (e.g., to delineate no passing zone), a pair of Type 2YY Raised Pavement Markers (RPMs) shall be installed to supplement the lines. The RPMs shall be installed immediately outside the painted lines at a spacing not greater than 40 feet.

4.18 Sight Obstruction

All new development shall design and construct streets, driveways, and street intersections in accordance with the sight distance criteria for entering sight distance (ESD) and stopping sight distance (SSD) as specified in Table 4.3.

In addition, per this section, the triangular area identified by the required sight line (as described in Table 4.3) for all existing and proposed street intersections shall be kept clear of obstructions between 42 inches and ten feet above the existing surface of the street.

Exclusions. Sight obstructions that may be excluded from these requirements include: utility poles, regulatory signs, trees trimmed from the base to a height of 10 feet above the street, and saplings or plant species of open growth habits and not in the form of a hedge which are so planted and trimmed as to leave at all seasons a clear and unobstructed cross view, buildings constructed in conformance with the provisions of appropriate zoning regulations and preexisting buildings.

4.19 Electrical and Street Illumination

Illumination shall be provided at all intersections within and abutting the development, at the end of dead-end streets containing more than three homes, at the apex of sharp curves, and any additional areas where determined for safety by the public works director, and as specified in NBMC 19.06.110. All illumination shall be designed and constructed using materials as specified by the local electrical utility, except as otherwise designated by the City.

- A. All new wiring for any utilities shall be buried with pad-mounted transformers. Design and installation of the system shall be done by the franchise utility company, or qualified engineer. Design shall be submitted to the city engineer for review prior to installation.
- B. Continuous illumination will be required for channelization accommodating additional lanes including the tapers. Illumination will also be required as identifiers where roads intersect arterials or for frequently used pedestrian areas on arterials.
- C. Widening of arterials with existing continuous illumination will require maintaining the continuous illumination. Widening to the ultimate roadway width will require illumination designed to current standards.
- D. The standard luminaire shall utilize full cutoff fixtures and a flat glass refractor. The standard luminaire shall be as specified by the local electrical utility. As an alternative, illumination may be provided from existing utility poles, with permission from the city engineer. The city engineer may require that analysis of light and glare be provided to show that any extra illumination beyond these standards will not have a significant

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adverse impact on existing land uses in the area. Energy efficient fixtures shall be required and shall provide a corrected light color temperature not to exceed 3,000 Kelvin.

E. Illumination shall be provided as follows:

Street Classification	Average Lighting Foot-Candles ⁽¹⁾
Arterial	0.6
Collector	0.4
Local Access/Half-Street	0.4

(1) In areas where lighting is required.

Some areas are classified as high or medium pedestrian areas, as determined by the city engineer. Higher levels of illumination will be required in those areas classified as high or medium pedestrian use.

4.20 Traffic Signals

Signalization will be required if warranted as determined by an existing study and/or transportation study performed by the Developer at the request of the City. All traffic signal components shall be designed by the developer and submitted for review to the city engineer. Upon approval and at the appropriate time, the City shall direct the developer to install, test, and commission the traffic signal, as approved. All components of the signals shall become property of the City.

4.21 Parking Lots

Parking lot surfacing materials shall satisfy the requirement for a permanent all-weather surface. Asphalt concrete pavement and cement concrete pavement satisfy this requirement and are approved materials. Gravel surfaces are not acceptable for approved surface material types. Porous asphalt, permeable concrete, permeable interlocking concrete pavers, and grid pavements may also be utilized in parking lot surfacing as allowed by adopted LID standards.

4.22 Survey Staking

All surveying and staking shall be performed by an engineering or surveying firm employed by the Developer and capable of performing such work. The engineer or surveyor performing and directing such work shall be currently licensed by the State of Washington to perform said task.

General construction inspection by the City shall not be considered approval of the staking nor relieve the contractor's responsibility to install infrastructure improvements in accordance with approved plans.

4.23 Driveways

Driveways are used to provide vehicle access from the public right-of-way to a building or interior portion of a parcel. Within the right-of-way, a driveway "entrance" provides a transition from the street to the driveway. The entrances are typically constructed of cement concrete or

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asphalt/gravel. The driveway from the entrance into the parcel is constructed of cement concrete, asphalt, gravel, or pavers.

A. General

- (1) Driveway entrance details are located at the end of these Standards. Driveway entrances shall be constructed in accordance with Section 8-06 of the Standard Specifications.
- (2) All abandoned driveway entrance areas on the same frontage shall be removed and the curbing and sidewalk or shoulder and ditch section shall be properly restored, at the Property Owner's expense.
- (3) Maintenance of driveway entrances and culverts shall be the responsibility of the owners whose property they serve.
- (4) A right-of-way use permit shall be required for any work within the public right-of-way or otherwise involving a driveway entrance, and may require the entrance to be upgraded for ADA. No person shall begin work on the construction, alteration, or removal of any driveway or the paving of any parking strip on and/or adjacent to any street, alley or other public place in the City without first obtaining a permit from the City.
- (5) Existing driveways may be reconstructed or repaired as they exist provided such reconstruction is compatible with the adjacent road. A right-of-way use permit shall not be required for driveway reconstruction or repair.
- (6) Notwithstanding any other provisions, driveways will not be allowed where they are prohibited by separate City Council action or where they are determined by the city engineer to create a hazard or impede the operation of traffic on the roadway.

B. Location and Width of New Driveways

- (1) A residential driveway shall typically serve only one parcel. Street frontage affected by driveways may be reduced by sharing driveways and reducing driveway width; a driveway addressing more than one parcel shall be classed as a commercial driveway, or joint use driveway, except as provided in subsections (2)(a) and (2)(b) of this section.
- (2) No portion of driveway entrance shall be allowed within five feet of side property lines where it intersects with the street right-of-way line in residential areas or nine feet in commercial areas except as follows:
 - (a) A joint use driveway tract may be used to serve a maximum of four parcels:
 - (i.) Minimum tract width shall be 20 feet with an 18-foot paved surface, cross slope in one direction and curb or thickened edge

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on one side, or designed as an inverted crown. Minimum tract length shall be 20 feet from right-of-way line.

- (ii.) Driving surface shall be paved, with a paved entrance from the edge of pavement (or curb) of intersecting street to right-of-way line.
 - (iii.) The city engineer may allow use of an easement if the only access to a serving roadway is through an adjacent parcel not owned by the applicant.
- (b) Driveways may utilize full width of narrow “pipe-stem” parcels or easements if approved by the city engineer.
- (3) Grade transitions, excluding the tie to the roadway, shall be constructed as smooth vertical curves. The maximum change in driveway grade, shall be eight percent within any 10 feet of distance on a crest and 12 percent within any 10 feet of distance in a sag vertical curve. Driveway shall be graded to match into possible future widened road section without encroachment into graded shoulder or sidewalk. The design engineer for proposed developments shall consider the access driveway profile when designing the serving road to ensure that required grade transitions can be complied with considering building setback and lot terrain conditions. A drawing showing the grade transitions shall be required to be submitted to the City at the time of building permit approval.
- (4) No driveway entrances shall extend into the street further than the face of the curb.
- (5) Every driveway must provide access to a garage, carport, parking area or other structure on private or public property requiring the entrance of vehicles. No public curb shall be cut unless a driveway is installed.
- (6) Driveway locations should also be reviewed for sight distance and general operations. No driveway entrance shall be located as to create a hazard to pedestrians, bicyclists or motorists or to invite or compel illegal or unsafe traffic movements.
- (7) No driveway entrance or driveway shall be constructed in such a manner as to be a hazard to any existing street lighting standard, utility pole, traffic regulating device or fire hydrant. At a minimum all portions of the driveway entrance shall be located 5 feet from these and similar appurtenances. The cost of relocating any such street structure when necessary to do so shall be paid by the abutting property owner. The relocation of any street structure shall be allowed with the specific written approval of the Owner of the structure involved.
- (8) Driveways for corner lots shall be located on the minor street side.

C. Dimensions, Slope, Details

- (1) Residential driveway widths are based on the number and orientation of garage bays. Driveway widths at the street or single-double-, and triple-bay garages that are side loaded and for garages at the rear of the lot may be up to 10-feet wide.
- (2) For front-loaded garages, residential driveways may be up to 10-feet wide for a single-bay garage, and up to 16-feet wide for double- and triple-bay garages. To minimize disruption of the sidewalk, these maximum widths should be reduced where, due to lot width, lot depth, house location, building type, and/or topography, a reduced driveway width would allow vehicles to easily and safely maneuver from the garage to the street.
- (3) The length of any driveway shall not exceed 150 feet, without approval of the city engineer.
- (4) Driveways and off-street parking for single-family residences need not be paved; provided, however, where said residence abuts upon a paved street, the driveway access and any parking must be paved from the paved street to the building setback line or a distance of 25 feet, whichever is greater. The subsurface and paving surface shall be of such materials and constructed in such a manner as the city engineer deems appropriate and pursuant to any applicable city design and construction standards.
- (5) Driveway slopes or grades shall not exceed fifteen percent unless otherwise authorized/approved by the city engineer in writing. A drawing shall be provided showing the driveway slopes on both edges. The city engineer will consider authorizing driveway slopes up to a maximum of twenty percent, if it is determined that:
 - (a) The driveway location is the only economically and environmentally reasonable alternative.
 - (b) The driveway will not present a traffic, pedestrian, bicycle or safety hazard.
 - (c) The Fire Marshal concurs in allowing the increased driveway slope.
 - (d) The public health, safety and general welfare will not be adversely affected.
 - (e) Driveways giving direct access onto arterials may be denied if alternate access is available.
 - (f) A wider road approach or driveway entrance may be approved by the city engineer where a substantial percentage of oversized vehicle traffic exists, where divisional islands are required/desired, or where multiple exit or entrance lanes are needed.

- (g) Parking lot circulation and signing needs shall be met on site. The public right-of-way shall not be utilized as part of a parking lot flow.
 - (h) Road approaches and/or ingress and egress tapers may be required in industrial and commercially zoned areas as directed by the city engineer.
 - (i) For driveways crossing an open ditch section, culverts shall be adequately sized to carry anticipated stormwater flows and in no case be less than 12 inches in diameter. The property owner making the installation shall be responsible for determining proper pipe size. The city engineer may require the owner to verify the adequacy of pipe size. Concrete pipe shall have a minimum cover of 6 inches to finish grade. All other pipes shall have a minimum cover of 12 inches.
- (6) The angle between any driveway and the street shall be not less than 60°.
 - (7) Generally, the two edges of each driveway shall be parallel.
 - (8) All driveway entrances shall be constructed over a 4-inch crushed surfacing (5/8 inch minus) top course. Driveway entrances shall be subject to the same testing and inspection requirements as curb, gutter, and sidewalk construction. Portland cement concrete driveways shall be 6-inches thick, including the portion from the gutter to the back edge of sidewalk.
 - (9) Driveway entrance to City streets shall be paved, unless otherwise approved by the city engineer.

D. Commercial Driveways

The maximum width for any commercial driveway shall be 35 feet. Traffic flow through a commercial site will be reviewed to determine minimum width needed. Commercial driveways shall be constructed with 8-inch-thick air-entrained Class 4000 cement concrete with reinforcing steel bars or mesh.

For commercial or industrial driveways with heavy traffic volumes or significant numbers of trucks, the city engineer may require construction of the access as a road intersection. This requirement will be based on traffic engineering analysis submitted by the applicant that considers, among other factors, intersection spacing, sight distance and traffic volumes. No commercial or industrial type driveway shall be constructed, if reasonably possible, where backing onto the sidewalk or street is required.

4.24 Sidewalks, Curbs and Gutters

A. General

All properties within commercial zones of the City, or abutting arterial streets, collectors or local access streets shall, in conjunction with new construction, alterations, reconstruction, or improvements of such properties, where the total cost of construction, reconstruction or remodeling in the opinion of the City warrants frontage improvements,

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provide sidewalks, curbs and gutters along abutting streets, in accordance with the details provided herein. Single-family residences, not associated with short plats or long plats, may be exempt from this requirement, if approved by the City Engineer and CED Director. See Section 4.04.

B. Design Standards

Plans for the construction of sidewalks, curbs and gutters are to be submitted as part of the street plans when applicable.

The City has set forth minimum standards as shown in the details which must be met in the design and construction of sidewalks, curbs and gutters. Because these are minimum standards, they may be modified by the City should the city engineer feel circumstances require variances to minimum design standards.

C. Sidewalks

- (1) Major and Minor Arterial Streets. Sidewalks, curbs and gutters shall be required on both sides of all arterial streets interior to the development, and also be required on the development side of streets abutting the exterior of said development. Special design criteria, according to the location of the development, is identified for Cedar Falls Way and North Bend Way, as shown in Tables 4.1 and 4.2, respectively.
- (2) Collector Streets. Sidewalks, curbs and gutters shall be required on both sides of all collector streets interior to the development, and shall also be required on the development side of streets abutting the exterior of said development. Special design criteria, according to the location of the development, is identified for 468th Avenue SE, SE 140th Street, and Park Street as shown in Tables 4.3 and 4.4.
- (4) Local Access Streets. Sidewalks, curbs and gutters shall be required on both sides of all local access streets interior to the development, and shall also be required on the development side of streets abutting the exterior of said development.
 - (a) Residential Local Access Streets and Cul-de-Sacs for Cottage Housing and Multiple Family. Sidewalks shall be separated from the curb by a landscape buffer of a minimum of 5 feet. Sidewalks shall be a minimum of 6-feet wide.
 - (b) Residential Local Access Streets for Low Density Residential. Sidewalks shall be separated from the curb by a landscape buffer of a minimum of 4-feet wide. Sidewalks shall be a minimum of 5-feet wide.
 - (c) Residential Local Access Streets with Low Impact Development. Sidewalks shall be separated from the curb on one side of the roadway by a landscape buffer a minimum of 5-feet wide, or on the other side of the roadway by a minimum of 11 feet, as a biochannel. Sidewalks shall be a minimum of 5-feet wide.

- (7) All Landscape buffers adjacent to sidewalks shall be landscaped consistent with NBMC 18.18.125 or as otherwise approved by the city engineer and maintained by the abutting property owner(s). The adjacent landowner shall keep sidewalks free of all obstructions, snow, ice, and other substances that may be a hazard to the walking public.
- (8) The design of all sidewalks shall provide for a gradual taper rather than an abrupt transition between sidewalks of different widths or alignments.
- (9) Form and subgrade inspection by the City, are required before sidewalk is placed. Monolithic placement of curb, gutter and sidewalk will not be allowed.
- (10) Sidewalks shall be constructed of Class 3000 or Class 4000 air-entrained Portland Cement Concrete, 4 inches thick (6-inches thick at driveway entrances or along access points for public facilities).
- (11) Sidewalks shall be constructed on compacted crushed surfacing top or base course, of suitable thickness, but no less than 2 inches, to provide a firm and unyielding base. Sidewalks will be constructed of Portland Cement Concrete as described in Section 8-14 of the Standard Specifications and be designed and constructed in compliance with those details as shown herein. Typically, in commercially zoned areas the sidewalks shall abut the curb. The city engineer shall be at liberty to vary sidewalk dimensional characteristics and location to meet localized or existing conditions.

D. Curb and Gutter

Cement concrete curb and gutter shall be used for all street edges unless otherwise approved by the city engineer. All curbs and gutters shall be constructed in accordance with Section 8-04 of the Standard Specifications. Curbs shall be of the vertical face type. No rolled curb and gutter profile will be allowed without specific approval of the city engineer. When rolled curbs are approved, all sidewalks abutting the rolled curb shall be a minimum 6-inches thick.

No extruded curb options will be accepted by the city during construction.

Form and subgrade inspection by the City are required before curb and gutter are placed.

Forms, wood or steel, shall be staked securely in place, true to line and grade.

Sufficient support shall be given to the form to prevent movement in any direction, resulting from the weight of the concrete or the concrete placement. Forms shall not be set until the subgrade has been compacted within one inch of the established grade. Forms shall be clean and well-oiled prior to setting in place. Immediately prior to placing the concrete, forms shall be carefully inspected for proper grading, alignment and rigid construction. Adjustments and repairs as needed shall be completed before placing concrete.

The subgrade shall be properly compacted and brought to specified grade before placing concrete. The subgrade shall be thoroughly dampened immediately prior to the placement of the concrete. Concrete shall be spaded and tamped thoroughly into the forms to provide a dense, compacted concrete free of rock pockets. The exposed surfaces shall be floated, finished and brushed longitudinally with a fiber hair brush approved by the City's inspector and/or city engineer.

Joints shall be constructed in the manner and at the locations shown in the drawings. They shall be cleaned and edged as shown on the drawings. All expansion joints shall extend entirely through the curb section above the pavement surface. Joint filler in the curb shall be normal to the pavement and in full but contact with pavement joint filler.

E. Curb Ramps

All sidewalks must be constructed to provide for curb ramps in accordance with ADA, PROWAG, and the current requirements as determined by WSDOT. Details provided herein are minimum and subject to change. It is the Developer's responsibility to verify current requirements and install same per current standards even if City has approved of construction drawings with non-compliant requirements.

Compliant curb ramps shall be installed whenever other improvements are required adjacent to or abutting an existing ramp or location that would otherwise require a curb ramp, as determined by the City. Pavement overlays shall require installation of compliant curb ramps in all areas wherein a legal crosswalk is affected by the pavement work.

Curb Ramps shall be constructed of Portland Cement Concrete. Form and subgrade inspection by the City are required before a curb ramp is placed.

4.25 Separated Walkways, Bikeways, and Trails

Separated pedestrian, bicycle, and equestrian facilities shall be provided where designated in the Comprehensive Plan or where required by the city engineer because of anticipated significant public usage. Separated facilities are typically located on an easement, tract, or within the right-of-way when separated from the roadway by a drainage ditch or barrier. Where separated walkways, bikeways, or equestrian facilities intersect with motorized traffic, sight distance, marking and signalization (if warranted) shall be as provided in MUTCD.

Asphalt walkways and/or Combination Walkways/Bikeways shall conform to the following standards:

Right-of-Way Width	As required.
Pathway Width	8 feet.
Crushed Surfacing Base Course	2-inch minimum.
Crushed Surfacing Top Course	2-inch minimum.
Paving Course	2-inch HMA minimum.

4.26 School Access

School access required as part of development approval shall be provided by an asphalt walkway or concrete sidewalk unless another alternative is available and approved by the city engineer through a road variance request.

4.27 Bikeways

Bicycle facilities shall be required in accordance with the North Bend Comprehensive Plan – Parks and Open Space Element and Transportation Element and where required by separate Council action or as described in the Standards.

A. Categories

The following provisions apply to bikeways associated with roads. Bikeways are categorized as described below based on degree of separation from motor vehicles and other transportation modes. This classification does not denote preference of one type over another. The planning and design of bikeways in any category shall be in accordance with the WSDOT Design Manual as modified herein, and the AASHTO Guide for the Development of Bicycle Facilities, current edition. Bikeways are categorized as follows:

- (1) **Shared Roadway:** A roadway that accommodates bicyclists without special markings or designations. Shared roadways accommodate bicycles by either providing a wide paved shoulder or a wide curb lane. A paved shoulder should be at least 4-feet wide to accommodate bicycle travel. A wide curb lane should have a total width of 14 feet without parking.
- (2) **Signed Shared Roadway:** Shared roadways that are identified by signing as preferred bicycle routes.
- (3) **Bike Lanes:** A portion of the road that is designated by pavement striping for exclusive bicycle use. Bicycle lanes may be signed as part of a directional route system. Bicycle lanes are typically 5-feet wide on a curbed road and a minimum of 4-feet wide as a shoulder bike lane. Bike lanes shall be provided on all arterials and where designated in the Comprehensive Plan.
- (4) **Shared Use Path:** Shared use paved tread trails, double track, are typically designated for bicycle and pedestrian use and in general follow a right-of-way independent of any road.

B. Striping and signing shall be implemented as follows:

- (1) Pavement markings shall be used on bike lanes and paths according to MUTCD and AASHTO Guide for the Development of Bicycle Facilities, current edition.
- (2) The design of all signalized intersections shall consider bicycle usage and the need for bicyclists to actuate the signal.

4.28 Equestrian Facilities

Equestrian facilities shall be provided where designated by the City of North Bend Parks and Open Space element of the Comprehensive Plan or as required by the city engineer and shall not be shared with bicycles.

4.29 Alleys and Rear Yard Access

Alleys may be incorporated in new Single Family and Multifamily residential projects to optimize development on small lots without deviation from maximum building cover and impervious surface requirements. Alleys shall be retained and utilized for nonresidential projects where alleys are existent, for example, in the DC and NB zoning district. Otherwise, alleys are encouraged where appropriate for nonresidential uses.

Alleys shall conform to the following standards:

Right-of-Way Width	20 feet minimum.
Paved Width	18 feet.
Crushed Surfacing Base Course	Based on engineering and geotechnical recommendations, 4 inch minimum.
Crushed Surfacing Top Course	Based on engineering and geotechnical recommendations, 2 inch minimum.
Paving Course	Based on engineering and geotechnical recommendations, 3-inch HMA minimum.

4.30 Side Slopes

Side slopes shall generally be constructed no steeper than 2.5:1 on both fill slopes and cut slopes. Steeper slopes may be approved by the public works director and/or city engineer upon showing that the steeper slopes, based on soils analysis, will be stable.

Side slopes shall be stabilized by grass sod or seeding, or by other plantings or surfacing materials acceptable to the city.

Handrails shall be required where slopes adjacent to sidewalks, asphalt walkways, and walkways/bikeways exceed a 2:1 cut slope. Handrails shall be in accordance with North Bend Standard Plan T-11.

4.31 Roadside Features

Miscellaneous features included herein shall be developed and constructed to encourage the uniform development and use of roadside features wherever possible. The design and placement of roadside features included herein shall adhere to the specific requirements as listed for each feature.

A. Survey Monuments

- (1) All existing (or new) survey control monuments and/or markers which are disturbed, lost, or destroyed during surveying or building shall be replaced with

the proper monument as outlined below by a professional land surveyor currently registered (licensed) in the State of Washington at the expense of the responsible contractor, builder or developer.

(2) All Streets:

Survey monuments, case, and cover located in roadway areas shall be in accordance with North Bend Standard Plan T-25.

(3) Monument Locations

Monuments shall be placed:

- (a) At all street intersections;
- (b) At the PC and PT's of all horizontal curves;
- (c) At PI of all horizontal curves of streets where the PI lies within the limits of the traveled roadway;
- (d) At all corners, control points and angle points around the perimeter of subdivisions as determined by the City;
- (e) At all section corners, quarter corners, and sixteenth corners that fall within the right-of-way.

B. Mailboxes

(1) Mailboxes shall be in accordance with the Postmaster.

(2) During construction, existing mailboxes shall be accessible for the delivery of mail or, if necessary, moved to a temporary location. Temporary relocation shall be coordinated with the local U.S. Postal Service. The mailboxes shall be reinstalled at the original location or to a new location as may be required by the local Postmaster, as further outlined below and approved by the U.S. Postal Service.

(3) Location

- (a) Bottom or base of box shall be 36 inches to 42 inches above the finished street grade.
- (b) Face of mailbox shall be 12 inches behind the face of the curb or edge of pavement.
- (c) Mailboxes shall be placed on the same side of the street as "No Parking" signs wherever possible.
- (d) Mailboxes shall be clustered for all subdivisions.

- (e) Where no landscape strip exists and a sidewalk abuts the curb, the sidewalk shall be widened around mailbox locations to provide a minimum 5 feet of walking clearance.

C. Guard Rails

For purposes of design and location, all guard rails along roadways shall conform to the criteria of the “Washington State Department of Transportation Design Manual,” current edition. Guard rails shall only be used when necessary to protect errant vehicles from exiting the roadway and striking a fixed object, entering a water body, or rolling over.

D. Rock Walls

- (1) Rock walls may be used for erosion protection of cut or fill embankments up to a maximum height of 8 feet, measured from keyway to top of wall, in stable soil conditions which will result in no significant foundation settlement or outward thrust upon the walls.
- (2) For walls of any height supporting an outward thrust (surcharge), or when soil is unstable, a structural wall of acceptable design stamped by an engineer currently licensed in the State of Washington shall be used.
- (3) A building permit shall be required for any wall over 4 feet in height, measured from keyway to top of wall, or any wall supporting a surcharge, regardless of height. Materials, design and construction shall be per applicable engineering recommendations, Standard Specifications Section 8-24, and these standards.
- (4) All walls shall be subject to inspection by the City. Rock walls requiring design by an engineer, or walls over 4 feet in height, measured from keyway to top of wall, shall be subject to inspection by the owner’s engineer. The owner’s engineer shall continuously inspect the installation of the wall as it progresses and shall submit inspection reports, including compaction test results and photographs taken during the construction, documenting the techniques used and the degree of conformance to the engineer’s design.
- (5) The rock material shall be as nearly rectangular as possible. No stone shall be used which does not extend through the wall.
- (6) The rocks shall be placed in a manner such that the longitudinal axis of the rock shall be at right angles or perpendicular to the rockery face.
- (7) Walls will not be allowed where deemed unsafe or where, in the opinion of the city engineer, the location will result in a hazard, nuisance, or require significant maintenance.

E. Street Trees and Landscaping Items

- (1) Street trees and landscaping shall be incorporated into the design of road improvements for all classifications of roads. If no trees exist in the landscape strip, the landowner may plant trees that meet requirements of the city. Such landscaping in the right-of-way shall be coordinated with off-street landscaping required on developer's property under the provisions of Chapter 18.18 NBMC, Landscaping Regulations. Only plant species listed on the City's approved plant list shall be used.
- (2) Planting buffer strips are required along all streets. The design of planting strips must be approved by the city engineer and must include a landscaping plan in which plant maintenance, utilities and traffic safety requirements are discussed. Where grass is approved, sod shall be installed in lieu of seeding. Prior to planting the existing soil shall be amended, or removed and replaced with suitable soil. Said landscaping plan must be approved by the city engineer.
- (3) Existing trees and landscaping shall be preserved where desirable and placement of new trees shall be compatible with other features of the environment. In particular, maximum heights and spacing shall not conflict unduly with overhead utilities, or root development with underground utilities.
- (4) Street trees shall be selected from the list of street trees in NBMC 18.18, or as otherwise approved by the Community and Economic Development Director as suitable for the available planting area and any obstructions. New trees shall not include poplar, cottonwood, soft maples, gum, any fruit bearing trees or any other tree or shrub whose roots are likely to obstruct sanitary or storm sewers.
- (5) Landscape strips and sidewalks in the right-of-way shall be maintained by the adjacent landowner, or homeowners' association in the case of low-impact development (LID) residential streets designed per the provisions under Section 4.03C of the Public Works Standards. The adjacent landowner shall not allow landscaping to obstruct the sidewalk or parking area along the curb, shall keep grass mowed, and shall not create an obstruction to visibility for drivers negotiating a driveway, alley, or intersection. The landowner or homeowners' association may modify the landscaping strip with city approval.

F. Roadside Obstacles

Lateral clearance between face of curb or edge of pavement and any fixed object (excluding traffic control signs and breakaway supports) shall be 3 feet except for residential local access streets and cul-de-sacs where the clearance shall be 2 feet. Such an object shall not be placed in a sidewalk or with the object edge nearest the roadway less than 8-1/2 feet from the face of the curb in business areas or 5-1/2 feet from face of curb in residential areas. Placement of any utility structures shall be in accordance with requirements of Section 4.32, to include constraints on placement of poles on the outside of curves.

G. Roadway Barricades

Temporary and permanent barricades shall conform to the standards described in Section 6C-8 of MUTCD.

4.32 Utilities

Utilities shall be furnished and installed within the right-of-way beneath new roads, or in existing roadways and rights-of-way so as to provide minimal interference with existing utilities and shall be located as generally shown in Drawings listed herein. Where existing utilities are in place, new utilities shall conform to these Standards as nearly as practical and yet be compatible with the existing installations. Exceptions may be approved by the City when necessary to meet special or localized requirements. Utilities shall be sized and designed to serve adjacent and tributary areas. Typically, utilities shall be required to be extended to “far” property lines. Easements shall be procured and provided by the developer to facilitate same. Utilities shall not be “land locked.”

A. Waterlines

Waterlines shall be located as required and approved by the city engineer or 5 feet north and east of centerline; depth 36 inches minimum from finished grade. Mains and service connections to all lots should be completed prior to placing of surface materials.

B. Sanitary Sewers

Sanitary sewers shall be located as required and approved by the city engineer or 5 feet south and west of centerline; depth 36 inches minimum from finished grade.

Sanitary and water lines shall be horizontally and vertically separated per Washington State Department of Ecology and Department of Health minimum requirements unless otherwise approved by the city engineer.

Gravity systems, whether sanitary or storm drainage, shall have precedence over other systems in planning and installation.

C. Other Utilities

Other utilities (gas, power, telephone, fiber optic, and cable TV) shall be located as follows:

Utilities shall be placed underground, either side of road, at plan location and depth compatible with other utilities and storm drains, unless determined to not be practical by the city engineer. Minimum cover over such utilities shall be 36 inches.

Otherwise: On existing poles (as applicable) set back of ditch line or sidewalk, at locations compatible with driveways, intersections, and other essential road features. To extent practical, utilities should share facilities so that a minimum of poles are needed, and preferably on only one side of road.

Notwithstanding other provisions, underground systems shall be located at least 5 feet away from road centerline and where they will not otherwise disturb existing survey monumentation.

D. Utility Crossings in Existing Streets

For smaller diameter pipes and wires the crossing shall be made without surface cut of the traveled portion where the street is paved. The crossing shall be made by pushing or boring a pipe under the road. Where rock is known or expected in the area of the crossing, the attempt need not be first, open cutting will be permitted, but prior approval of the City is required.

4.33 Trench Backfill and Surface Restoration

Trench restoration shall be either by a patch or patch plus overlay as required by the City, and as shown in the Drawings.

- A. All trench and pavement cuts shall be made by sawcuts. The cuts shall be a minimum of 1 foot outside the trench width.
- B. All trenching shall be backfilled with gravel base, bank run gravel for trench backfill, suitable native excavated material, or crushed surfacing materials conforming to the WSDOT Standard Specifications. The trench shall be compacted to 95 percent maximum density, as described in Section 2-03 of the WSDOT Standard Specifications. The City will be the sole judge of approving materials to be utilized for backfill. Typically, crushed rock (5/8-inch minus) or control density fill (CDF) shall be placed and compacted in the trench sections for all right angle (\pm) street crossings.

If the existing native excavated material is determined by the City to be suitable for backfill, the contractor may use the native material except that the top 12 inches of the trench section shall be 5/8-inch minus crushed rock or other structurally suitable material as approved by the city engineer. Exceptions may be granted by the City based on site evaluation of excavated materials. All trench backfill materials shall be compacted to 95 percent maximum density.

Backfill compaction shall be performed in 6-inch lifts, unless otherwise approved by the City.

Replacement of the asphalt or cement concrete surfacing shall match existing asphalt or cement concrete depth, except hot mix asphalt shall be a minimum compacted thickness of 3 inches and cement concrete shall be a minimum thickness of 6 inches.

- C. Tack shall be applied to the existing pavement and edge of cut and shall be emulsified asphalt grade CSS-1 as specified in Section 9-02.1(6) of the WSDOT Standard Specifications. Tack coat shall be applied as specified in Section 5-04 of the WSDOT Standard Specifications.
- D. Hot mix asphalt shall be placed on the prepared surface by an approved paving machine and shall be in accordance with the applicable requirements of Section 5-04 of the

WSDOT Standard Specifications, except that longitudinal joints between successive layers of asphalt concrete shall be displaced laterally a minimum of 12 inches unless otherwise approved by the City. Fine and coarse aggregate for hot mix asphalt shall be in accordance with Section 9-03.8 of the WSDOT Standard Specifications. Hot mix asphalt over 2-inches thick shall be placed and compacted in equal lifts not to exceed 2 inches each.

All street surfaces, walks or driveways within the street trenching areas affected by the trenching shall be feathered and shimmed to an extent that provides a smooth-riding connection and expeditious drainage flow for the newly paved surface. Shimming and feathering as required by the City Inspector shall be accomplished by raking out the oversized aggregates from the hot mix asphalt as appropriate.

Surface smoothness shall be per Section 5-04.3(13) of the WSDOT Standard Specifications. The paving shall be corrected by removal and repaving of the trench only.

- E. All joints and cracks shall be sealed and sanded.
- F. When trenching within the roadway shoulder(s), the shoulder shall be restored to its original or better condition.
- G. The final patch shall be completed as soon as possible and shall be completed within 30 days after first opening the trench. This time frame may be adjusted if delays are caused by inclement paving weather, or other adverse conditions that may exist. However, delaying of final repair is allowable only subject to the city engineer's approval. The city engineer may deem it necessary to complete the work within the 30 days time frame and not allow any time extension. If this occurs, the Contractor shall perform the necessary work as required by the City.

4.34 Temporary Street Patching

Temporary restoration of trenches shall be accomplished by using 2-inch commercial hot mix asphalt (HMA) when available or 4-inch medium-curing (MC-250) liquid asphalt (cold mix), 3-inch asphalt treated base (ATB), or steel plates suitable for H-20 traffic loading conditions. Steel plates shall be provided with a cold mix "lip" to accommodate a smooth transition from pavement to steel plate.

All temporary patches shall be maintained by the contractor until such time as the permanent pavement patch is in place. All temporary patch materials shall be loaded and hauled to waste by the Contractor, in compliance with applicable government regulations.

If the contractor is unable to maintain a patch for whatever reason, the City will patch it at actual cost plus overhead and materials. The property owner/developer/permittee shall be invoiced for any City expenses incurred to comply with this Contractor requirement.

4.35 Material and Construction Testing

Materials shall meet requirements of Division 9 of the materials section of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction, except as specifically noted in this chapter.

Use of WSDOT Qualified Product List (QPL) and Aggregate Source Approval (ASA) databases is recommended for Approval of Materials. Use of Record of Material (ROM) and Request for Approval of Material (RAM) forms is required and needs to be approved by city prior to construction.

Testing shall be required at the developer's or contractor's expense. The testing shall be ordered by the developer or contractor and the chosen testing lab shall be preapproved by the City. Testing shall be done on all materials and construction as specified in the WSDOT Standard Specifications and with frequency as specified herein.

In addition, the City shall be notified before each phase that street construction commences (i.e., staking, grading, subgrade, ballast, base, top course, and surfacing).

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<u>ITEM</u>	<u>TYPE OF TESTS</u>	<u>MIN. NO.</u>	<u>FREQUENCY</u>
GRAVEL BORROW	GRADING & SE	1 EACH	1-4000 TON
SAND DRAINAGE BLANKET	GRADING	1 EACH	1-4000 TON
CSTC & CSBC	GRADING, SE & FRACTURE	1 EACH	1-2000 TON
BALLAST	GRADING, SE & DUST RATIO	1 EACH	1-2000 TON
BACKFILL/SAND DRAINS	GRADING	1 EACH	1-2000 TON
GRAVEL BACKFILL FOR:			
FOUNDATIONS	GRADING, SE & DUST RATIO	1 EACH	1-1000 TON
WALLS	GRADING, SE & DUST RATIO	1 EACH	1-1000 TON
PIPE BEDDING	GRADING, SE & DUST RATIO	1 EACH	1-1000 TON
DRAINS	GRADING	1 EACH	1-100 TON
PCC STRUCTURES: (Sidewalk, Curb and Gutter, Foundations)			
COARSE AGGREGATE	GRADING	1 EACH	1-1000 TON
FINE AGGREGATE	GRADING	1 EACH	1-500 TON
CONSISTENCY	SLUMP	1 EACH	1-100 CY
AIR CONTENT	AIR	1 EACH	1-100 CY
CYLINDERS (28 DAY)	COMPRESSIVE STRENGTH	2 EACH	1-100 CY
CEMENT:	CHEMICAL & PHYSICAL CERT.	1	1-JOB
HOT MIX ASPHALT:			
BLEND SAND	SE	1 EACH	1-1000 TON
MINERAL FILLER	S.G. & PI, CERTIFICATION	1	1-JOB
COMPLETED MIX	FRACTURE, SE, GRADING, ASPHALT CONTENT	1 EACH	1-1000 TON
	COMPACTION	2 EACH	5-400 TON
ASPHALT TREATED BASE:			
COMPLETED MIX	SE, GRADING, ASPHALT CONTENT	1 EACH	1-1000 TON
	COMPACTION	1 EACH	5-Control Lot*
ASPHALT MATERIALS	CERTIFICATION	1	1-JOB
RUBBERIZED ASPHALT:	CERTIFICATION	1	1-JOB
COMPACTION TESTING:			
EMBANKMENT	COMPACTION	1 EACH	1-500 LF
CUT SECTION	COMPACTION	1 EACH	1-500 LF
CSTC & CSBC	COMPACTION	1 EACH	1-500 LF
BALLAST	COMPACTION	1 EACH	1-500 LF
TRENCH BACKFILL	COMPACTION	1 EACH	1-500 LF

SE = Sand Equivalency

* A control lot shall be a normal day's production. For minor quantities 200 tons or less per day, a minimum of 2 gauge readings shall be taken.

4.36 Subgrade Preparation

The subgrade area of the street right-of-way shall be prepared per Section 2-06 of the WSDOT Standard Specifications. All cleared and grubbed material shall be satisfactorily removed and disposed of properly. All depressions, or ruts, which contain water will be drained. At a minimum, the subgrade of the road shall consist of free-draining materials to a depth of 12 inches below finish grade.

The existing subgrade will be compacted to a minimum density as defined in the WSDOT Standard Specifications and as witnessed by the City Inspector. Compaction tests may be required to be conducted at the discretion of the City to verify same. All subgrade areas shall be firm and unyielding prior to placing surfacing or base course materials, and shall be confirmed by proof-rolling with a fully-loaded truck and observed by a City representative. Any soft and yielding spots shall be repaired to the satisfaction of the City prior to placement of surfacing material.

4.37 Crushed Surfacing (Top and Base Course)

Surfacing shall consist of the construction of two or more courses of crushed stone upon an existing roadway surface, or upon a subgrade properly prepared as outlined above. Crushed surfacing material shall be uniform in quality and substantially free from wood, roots, bark and other extraneous material. It will compact into a dense and unyielding mass which will be true to line, grade and cross-section. Minimum compaction of crushed materials shall be 95 percent maximum density. The crushed materials shall meet the specifications of WSDOT Section 9-03.9(3).

4.38 Surfacing Requirements

All streets in the City of North Bend will be paved with either Hot Mix Asphalt (HMA) or Portland Cement Concrete, in strict compliance with these standards. All pavement sections shall be designed by an engineer licensed in the State of Washington. The pavement design shall meet the requirements in the latest publication of the AASHTO Guide for Design of Pavement Structures. Any pavement shall be designed using currently accepted methodology that considers the load bearing capacity of the soils and the traffic carrying capacity requirements of the roadway. Plans shall be accompanied by a pavement thickness design based on soil strength parameters reflecting actual field tests and traffic loading analyses. The analysis shall include the traffic volume and axle loading, the type and thickness of roadway materials and the recommended method of placement.

When an existing asphalt paved street is to be widened, the edge of pavement shall be sawcut to provide a clean, vertical edge for joining to the new asphalt. After placement of the new asphalt section, the joint shall be sealed and the street overlaid, 2 inches, plus a prelevel course, full width throughout the effected area.

One soil sample per each 500 LF of centerline with three minimum per project representative of the roadway subgrade shall be taken by the Developer and delivered to a City approved soils lab in order to determine a statistical representation of the existing soil conditions.

STREETS, PEDESTRIAN PATHS, AND BIKEWAYS

Soil tests shall be performed by an engineering firm specializing in soils analysis and currently licensed in the State of Washington.

The soils report, signed and stamped by a soils engineer licensed by the State of Washington, shall be based on actual soils tests and submitted with the plans. All depths indicated are a minimum compacted depth.

Construction of streets paved with Hot Mix Asphalt shall conform to Section 5-04 of the Standard Specifications. Pavement material will be Hot Mix Asphalt Class 1/2" PG 64-22 and be constructed at least 3-inches thick (minimum compacted thickness) over the prepared crushed surface, top course, or asphalt treated base. Mechanical spreading and finishing will be as described in Section 5-04.3(9) of the Standard Specifications. Compaction will be performed by the equipment and methods presented in Section 5-04.3(10) of the Standard Specifications, and Surface Smoothness shall satisfy the requirement of Section 5-04.3(13) of the Standard Specifications.

Cement concrete streets will be designed and constructed as specified in Section 5-05 of the Standard Specifications. Cement concrete shall be placed over a minimum of 4 inches of compacted crushed surfacing.

Permanent pavement patching will be performed as described in the pavement repair detail listed herein, and in compliance with Section 5-04 of the Standard Specifications. All fill material will be placed in lifts no thicker than six inches and mechanically compacted to 95 percent of standard density, as described in Section 2-03 of the Standard Specifications and to the satisfaction of the city engineer.

The City has established minimum surfacing requirements, for collectors and local access streets only. These minimum standards are to be used in lieu of a pavement design by a licensed engineer on collector or local access streets only and only upon approval by the city engineer:

	Hot Mix <u>Asphalt</u>	Asphalt Treated Base or Crushed Surfacing <u>Top Course</u>	Crushed Surfacing <u>Base Course</u>
Collector	3"	4"	6"
Local Access	3"	4"	6"

APPENDIX 4-1

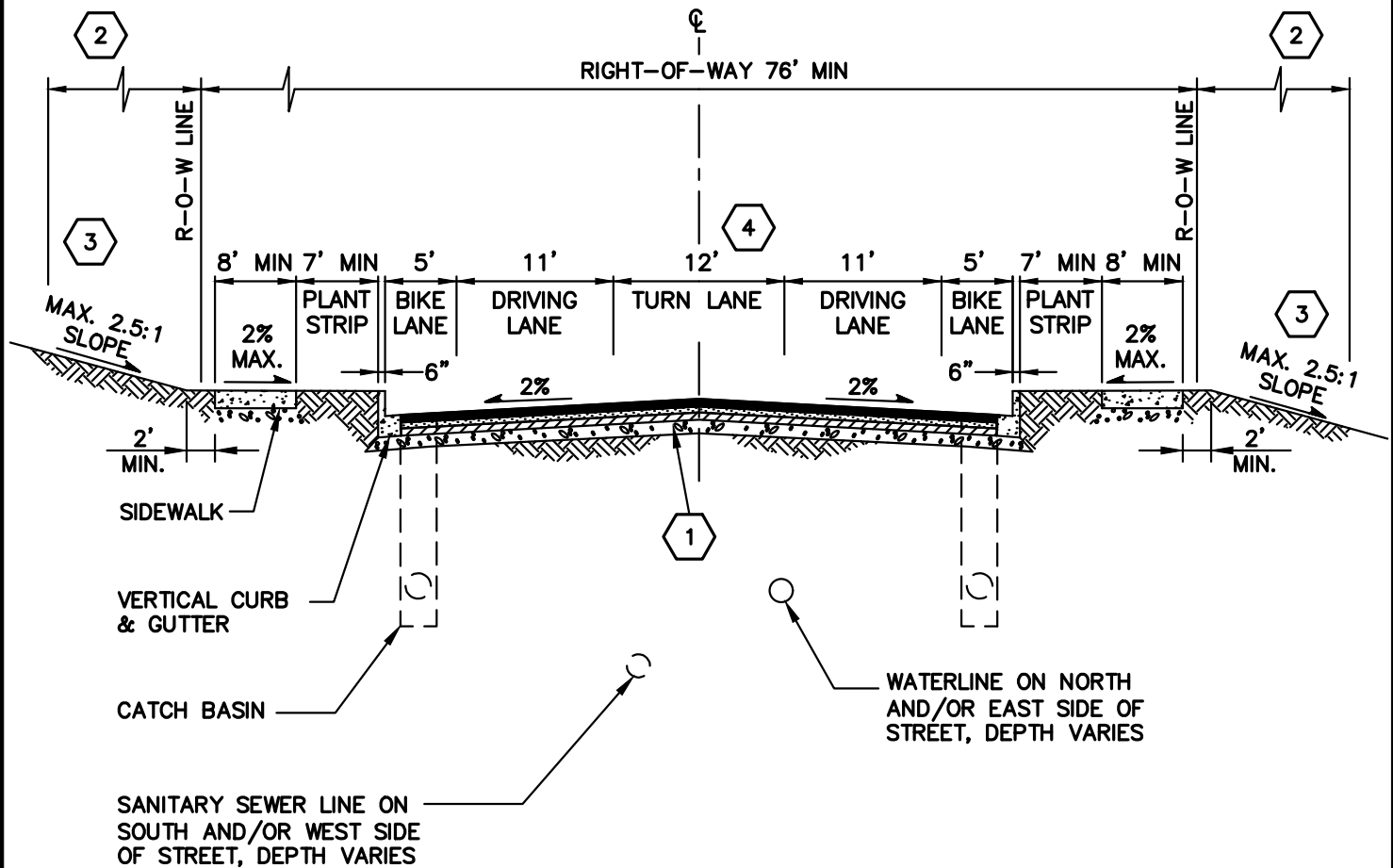
STREETS, PEDESTRIAN PATHWAYS, AND BIKEWAYS
STANDARD DETAILS

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**NOTES:**

- 1** PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER.
- 2** 10' UTILITY AND/OR SLOPE EASEMENT AS REQUIRED.
- 3** SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.
- 4** TURN LANES SHALL BE CONSTRUCTED WHERE REQUIRED.



CITY OF NORTH BEND
ARTERIAL STREETS (INCLUDES CEDAR
FALLS WAY FROM NORTH BEND WAY
TO MALONEY GROVE AVENUE SE)
TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

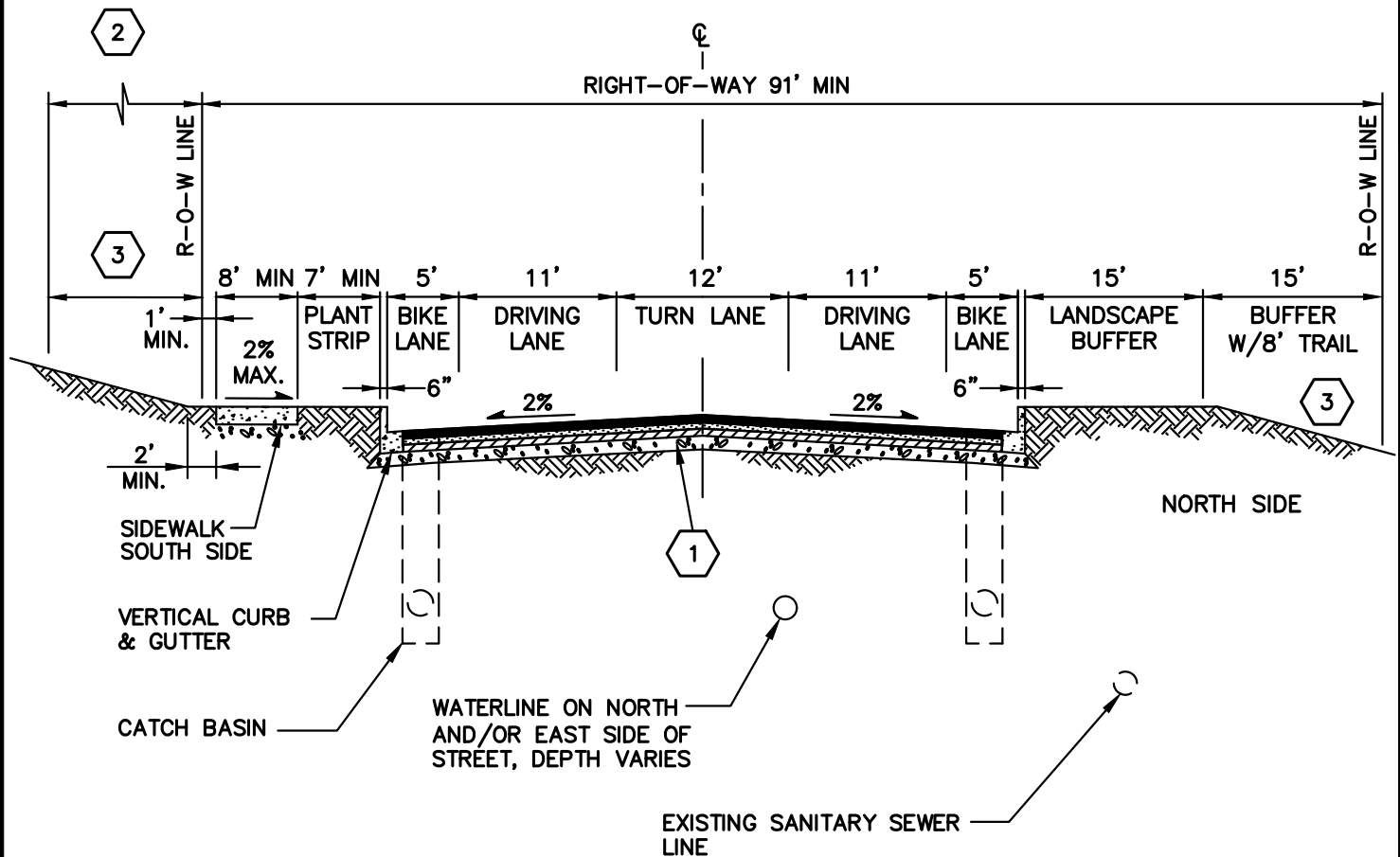
BY CITY

MAY 2018

DATE

DWG. NO.

T-1A

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER.
- 2 10' UTILITY AND/OR SLOPE EASEMENT AS REQUIRED.
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.



CITY OF NORTH BEND
CEDAR FALLS WAY
 (MALONEY GROVE AVE SE TO
 436TH AVE SE)
 TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

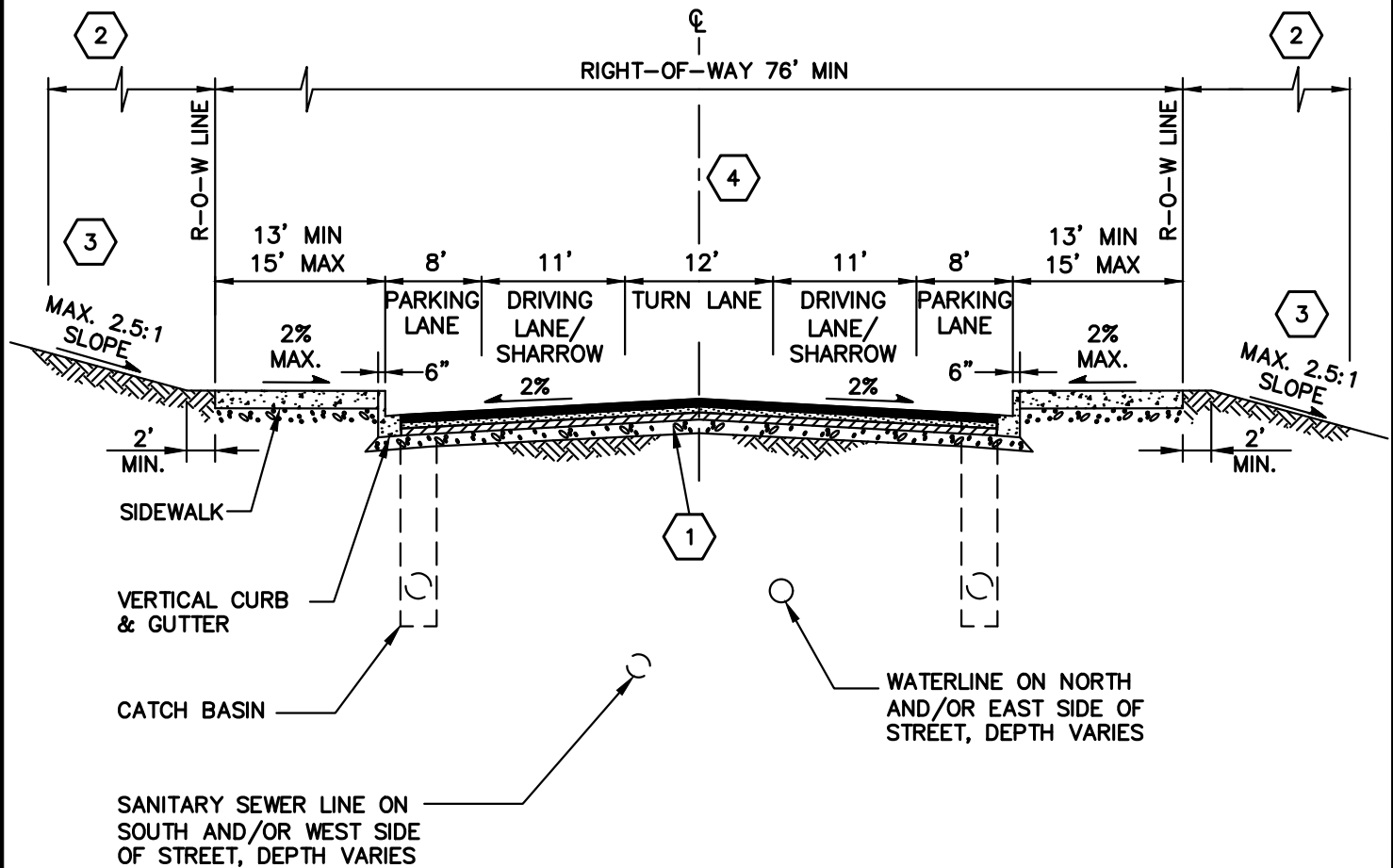
BY CITY

MAY 2018

DATE

DWG. NO.

T-1B

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER.
- 2 10' UTILITY AND/OR SLOPE EASEMENT AS REQUIRED.
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.
- 4 WHERE INTERSECTION BULB-OUTS ARE INSTALLED STREET WIDTH SHALL BE ADJUSTED.



CITY OF NORTH BEND
NORTH BEND WAY (BETWEEN
BRIDGE AND E. PARK STREET)
TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

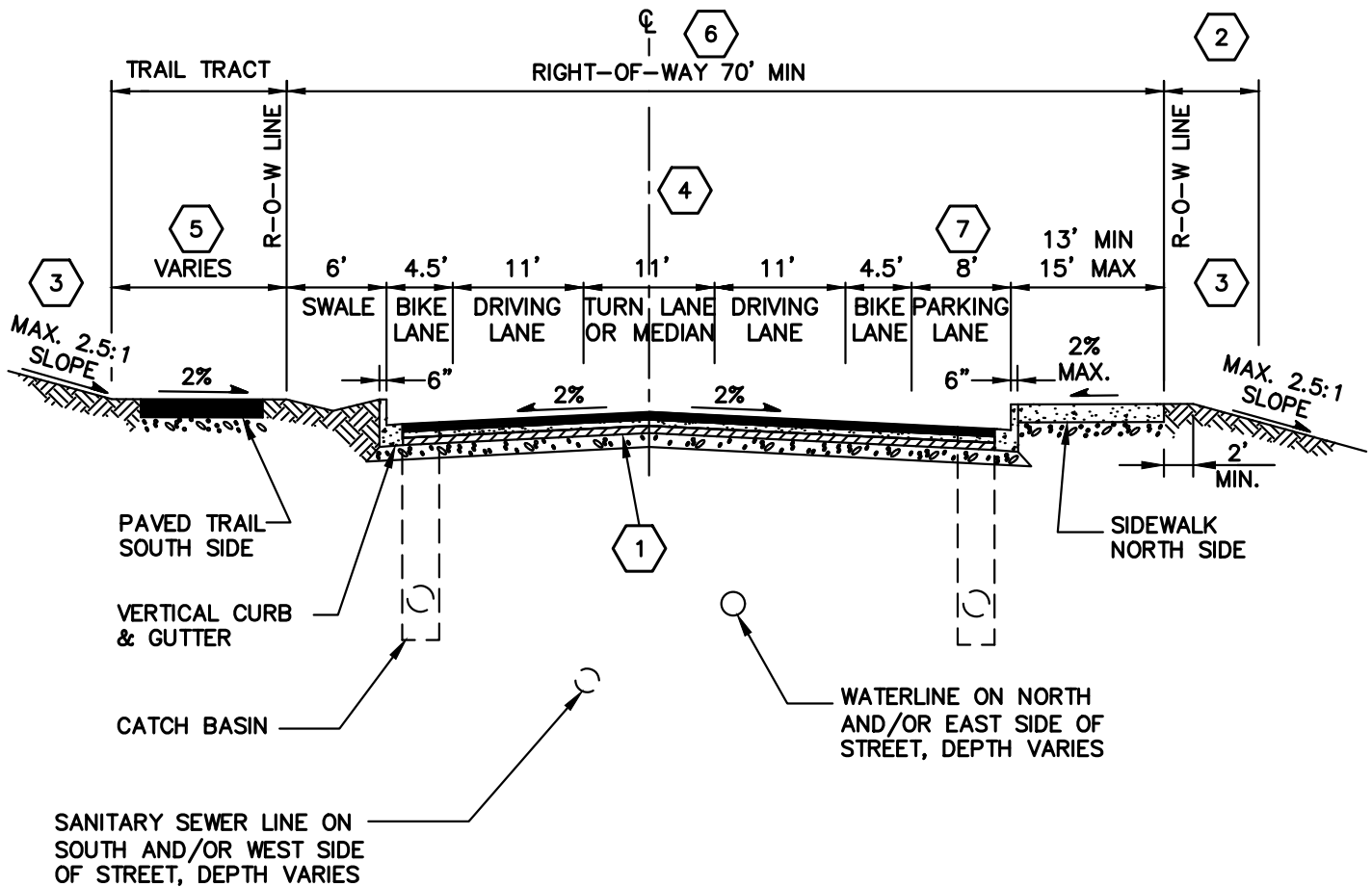
BY CITY

MAY 2018

DATE

DWG. NO.

T-2

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER.
- 2 10' UTILITY EASEMENT
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.
- 4 TURN LANES SHALL BE CONSTRUCTED AS VEGETATED MEDIANS IN AREAS WHERE DRIVEWAYS ARE INFREQUENT OR WHEN NECESSARY TO CONSOLIDATE DRIVEWAYS.
- 5 WALKWAYS ON SOUTH SIDE OF STREET SHALL BE BUILT TO MATCH EXISTING TANNER TRAIL SECTION.
- 6 SECTION ALSO APPLIES TO THE SE MOUNT SI ROAD INTERSECTION ADJACENT TO PROPERTIES ZONED NEIGHBORHOOD BUSINESS (NB) TO THE EAST, AND WEST TO CEMETERY.
- 7 PARKING LANE NORTH SIDE ONLY.



CITY OF NORTH BEND
 NORTH BEND WAY (E. PARK
 STREET TO CEDAR FALLS WAY)
 TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

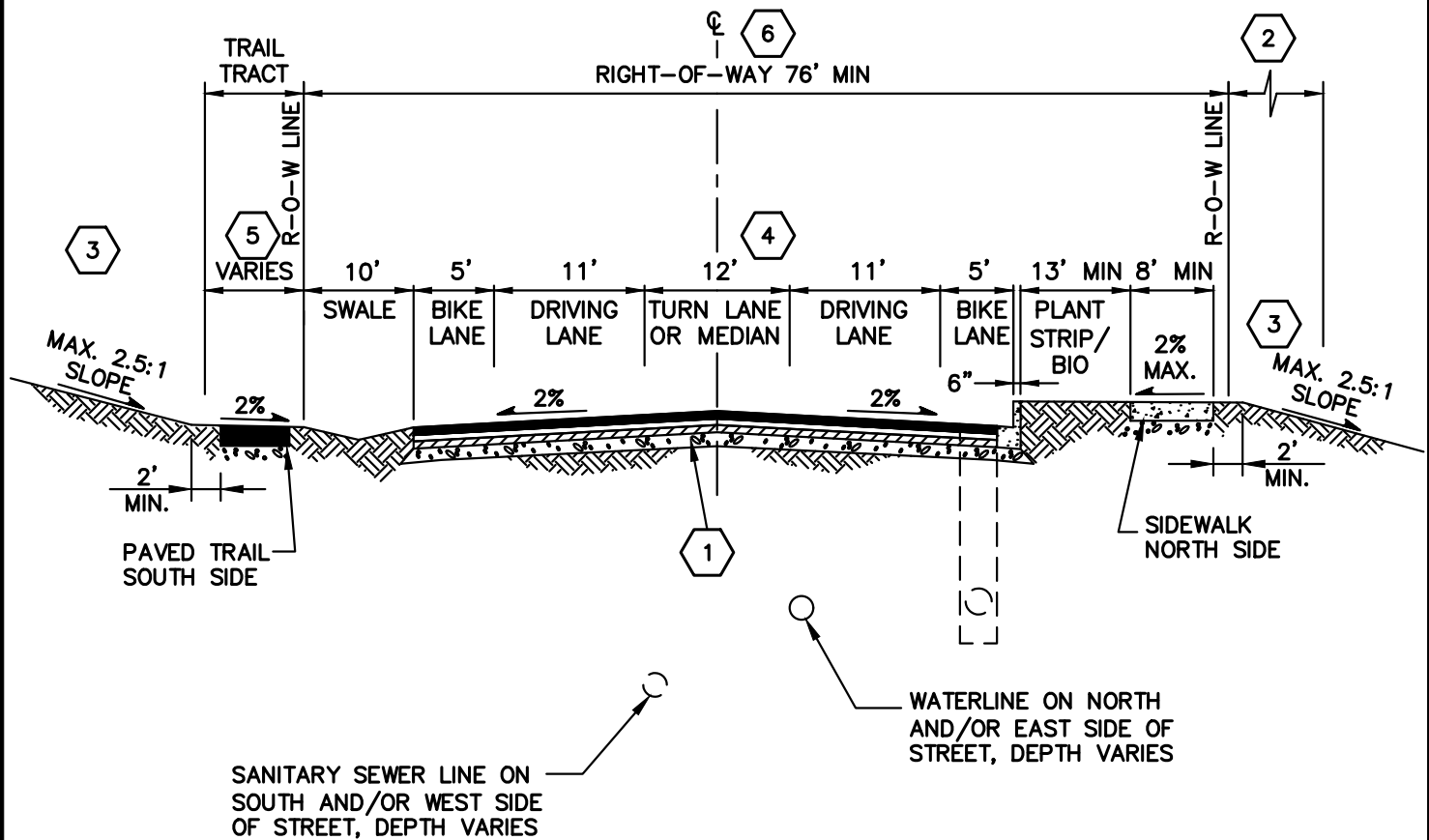
BY CITY

MAY 2018

DATE

DWG. NO.

T-3

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER.
- 2 10' UTILITY AND/OR SLOPE EASEMENT AS REQUIRED.
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.
- 4 TURN LANES SHALL BE CONSTRUCTED AS VEGETATED MEDIANS IN AREAS WHERE DRIVEWAYS ARE INFREQUENT OR WHEN NECESSARY TO CONSOLIDATE DRIVEWAYS.
- 5 TRAIL ON SOUTH SIDE OF STREET SHALL BE BUILT TO MATCH EXISTING TANNER TRAIL SECTION.
- 6 SECTION DOES NOT APPLY TO SE MOUNT SI ROAD INTERSECTION.



CITY OF NORTH BEND
 NORTH BEND WAY (CEDAR FALLS
 WAY TO SE 140TH STREET)
 TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

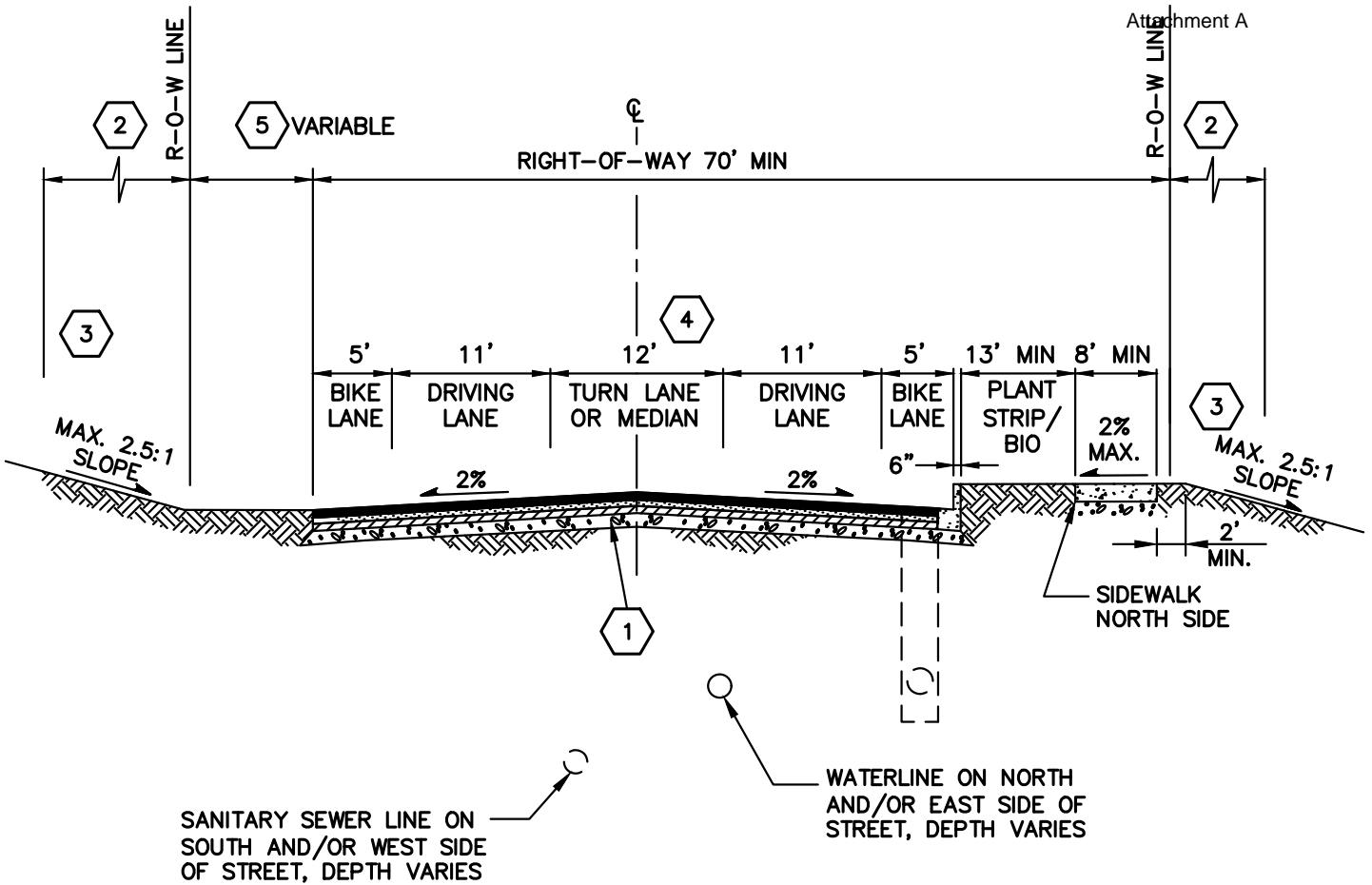
BY CITY

MAY 2018

DATE

DWG. NO.

T-4



NOTES:

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER.
- 2 10' UTILITY AND/OR SLOPE EASEMENT AS REQUIRED.
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.
- 4 TURN LANES SHALL BE CONSTRUCTED AS VEGETATED MEDIANS IN AREAS WHERE DRIVEWAYS ARE INFREQUENT OR WHEN NECESSARY TO CONSOLIDATE DRIVEWAYS.
- 5 SUBJECT TO CITY OF NORTH BEND APPROVAL, ADDITIONAL RIGHT-OF-WAY MAY BE OBTAINED OR UTILIZED ON SOUTH ROADWAY EDGE FOR EMERGENCY PARKING IN THE EVENT OF PASS CLOSURES OR OTHER.



CITY OF NORTH BEND
 NORTH BEND WAY (SE 140TH
 STREET TO 468TH AVENUE SE)
 TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

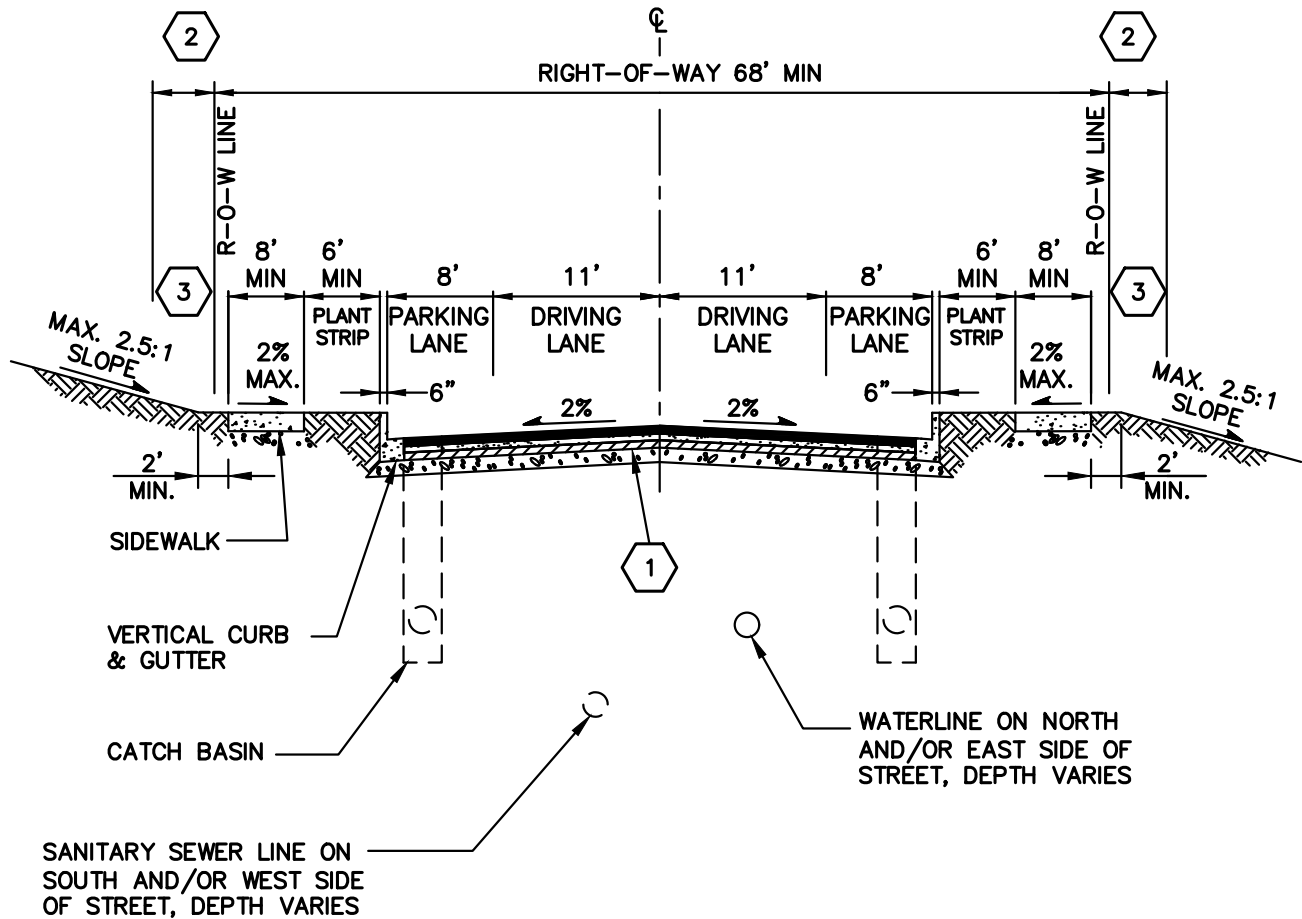
BY CITY

MAY 2018

DATE

DWG. NO.

T-5

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER, OR MINIMUM PER SECTION 4.38.
- 2 5' UTILITY EASEMENT (BOTH SIDES)
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.



CITY OF NORTH BEND

COLLECTOR STREETS
TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

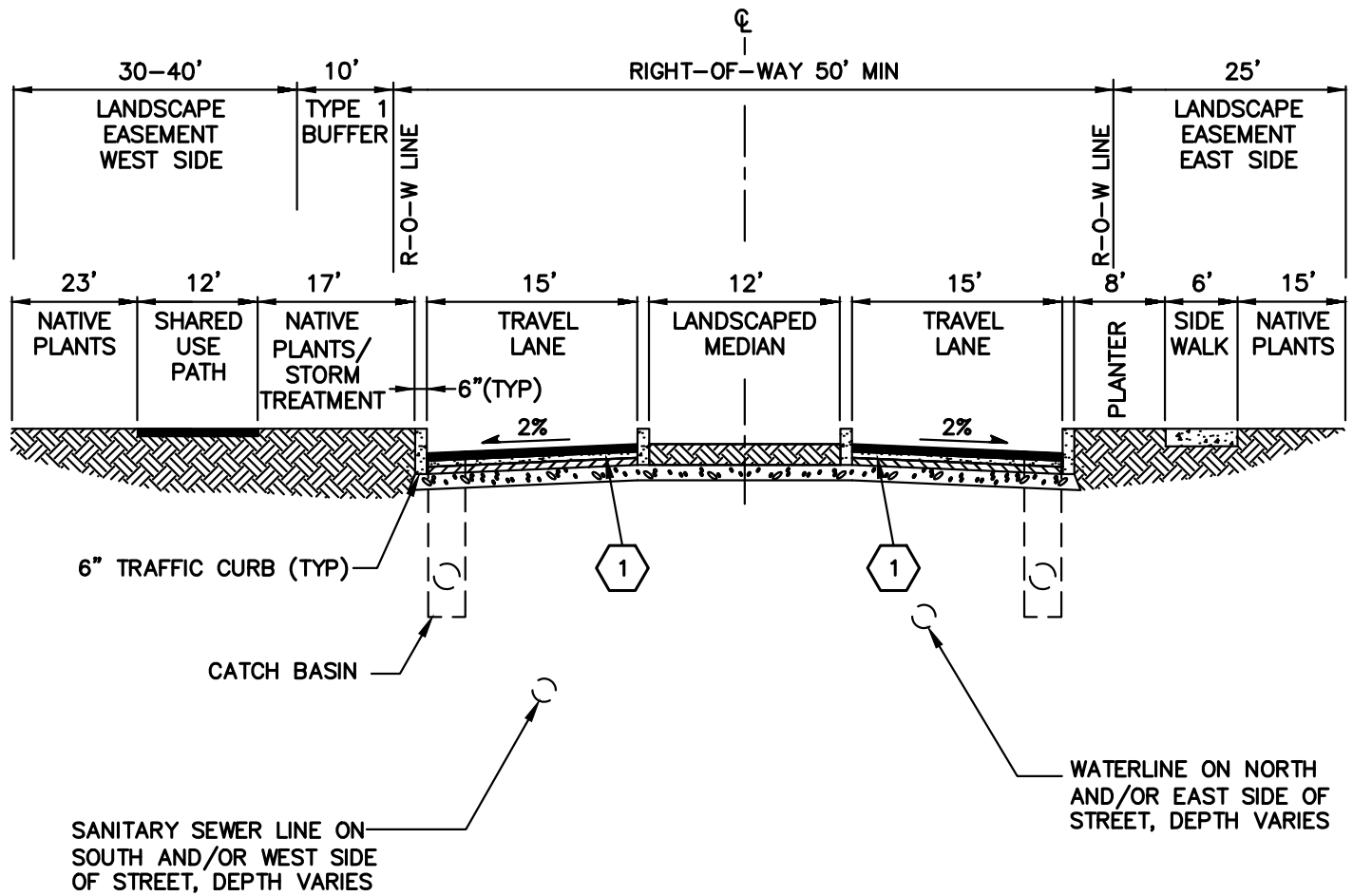
BY CITY

MAY 2018

DATE

DWG. NO.

T-6A

**NOTES:**

PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER, OR MINIMUM PER SECTION 4.38.



5' UTILITY EASEMENT (BOTH SIDES)



CITY OF NORTH BEND
 468TH AVE SE-NORTH OF SE
 146TH ST TO SE 144TH ST
 TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

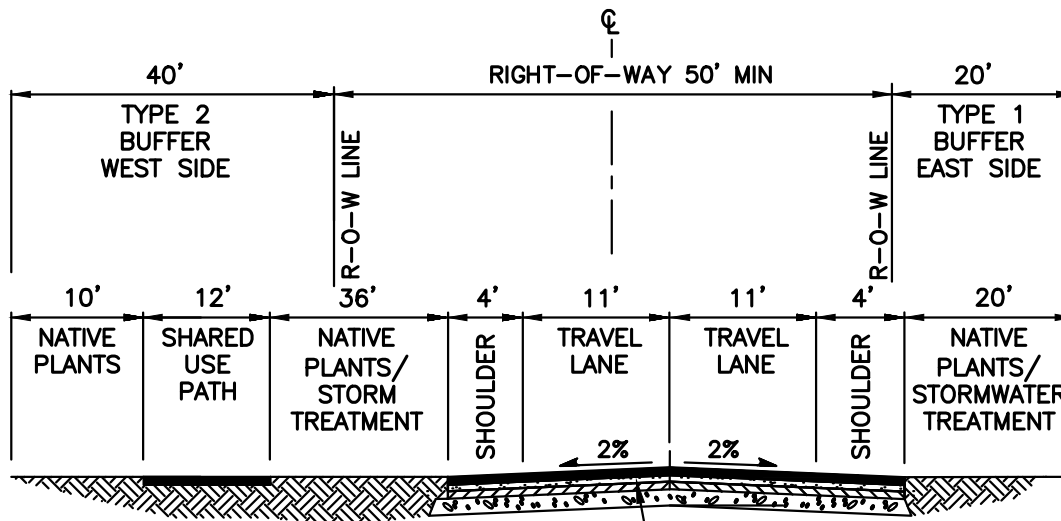
BY CITY

MAY 2018

DATE

DWG. NO.

T-6B



SANITARY SEWER LINE ON SOUTH AND/OR WEST SIDE OF STREET, DEPTH VARIES

WATERLINE ON NORTH AND/OR EAST SIDE OF STREET, DEPTH VARIES

NOTES:

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER, OR MINIMUM PER SECTION 4.38.
- 2 5' UTILITY EASEMENT (BOTH SIDES)



CITY OF NORTH BEND
 468TH AVE SE-NORTH OF SE
 144TH ST TO SE MIDDLE
 FORK ROAD

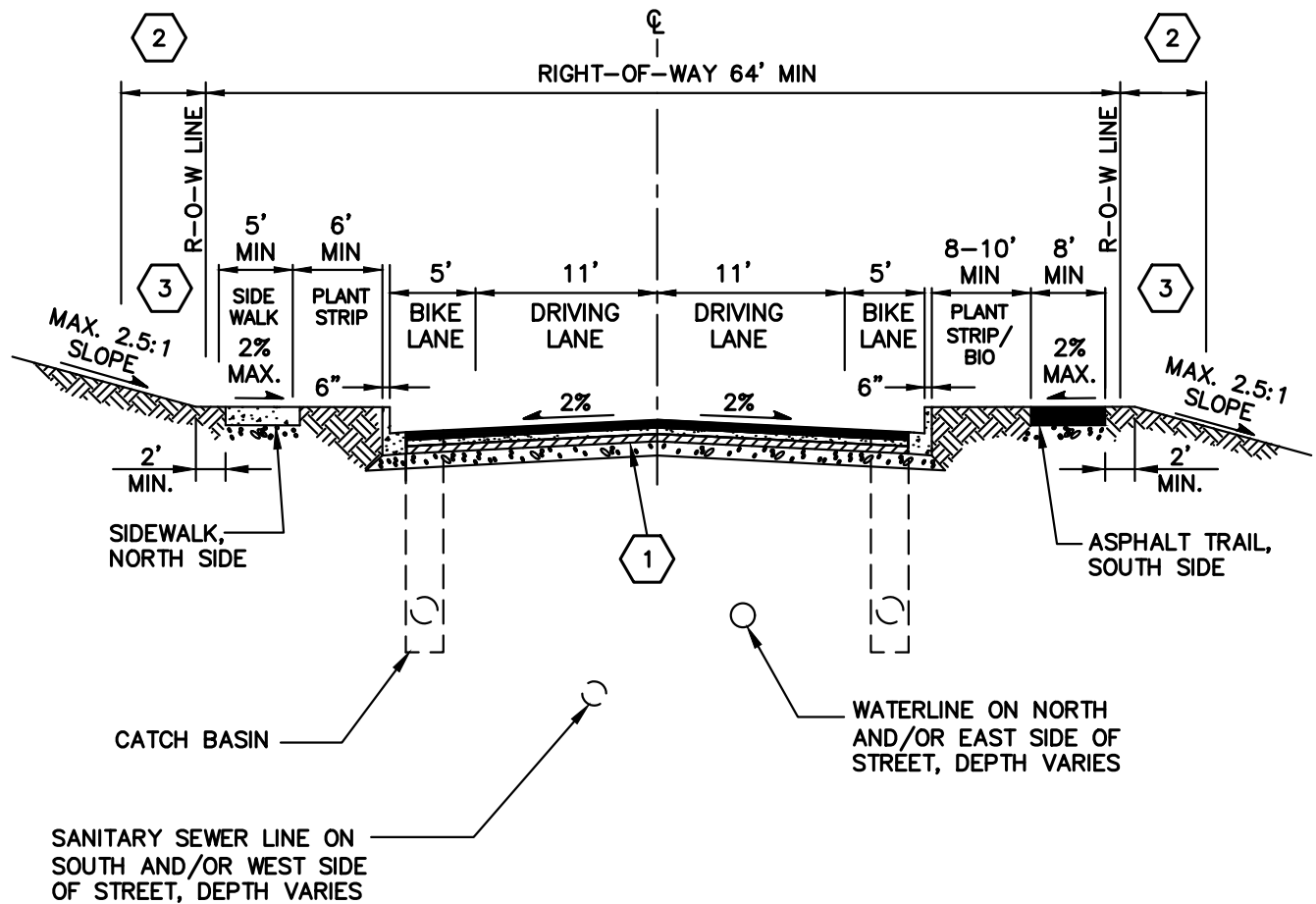
APPROVED:

MARK RIGOS, P.E.
 BY CITY

MAY 2018
 DATE

DWG. NO.

T-6C

**NOTES:**

1

PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER, OR MINIMUM PER SECTION 4.38.

2

5' UTILITY EASEMENT (BOTH SIDES)

3

SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.

**CITY OF NORTH BEND**

SE 140TH STREET FROM NORTH BEND WAY TO MIDDLE FORK ROAD
TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

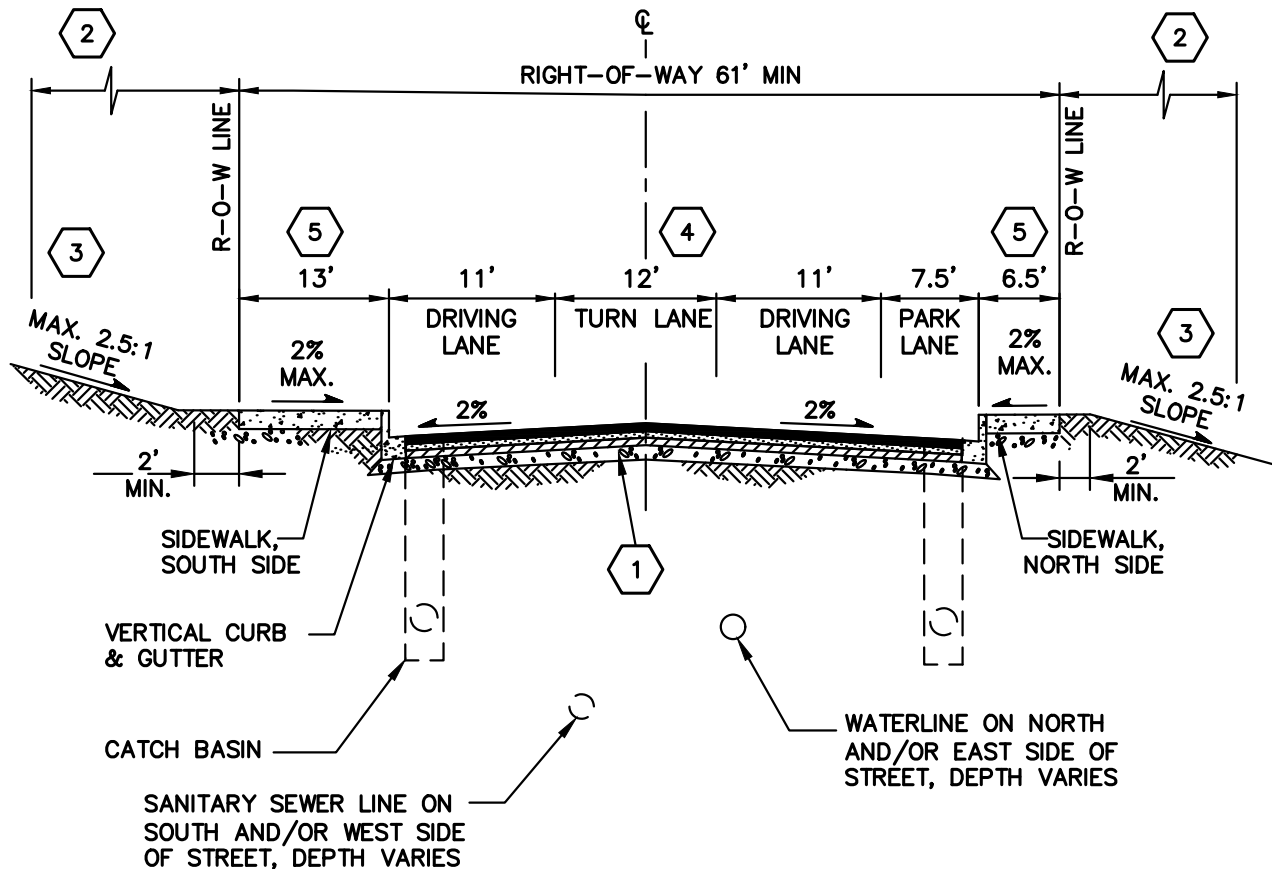
BY CITY

MAY 2018

DATE

DWG. NO.

T-6D

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER.
- 2 10' UTILITY AND/OR SLOPE EASEMENT AS REQUIRED.
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.
- 4 TURN LANES SHALL BE CONSTRUCTED WHERE REQUIRED.
- 5 CURB IS INCLUDED IN SIDEWALK DIMENSION.



CITY OF NORTH BEND
PARK STREET-BENDINGO
TO MAIN STREET
TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

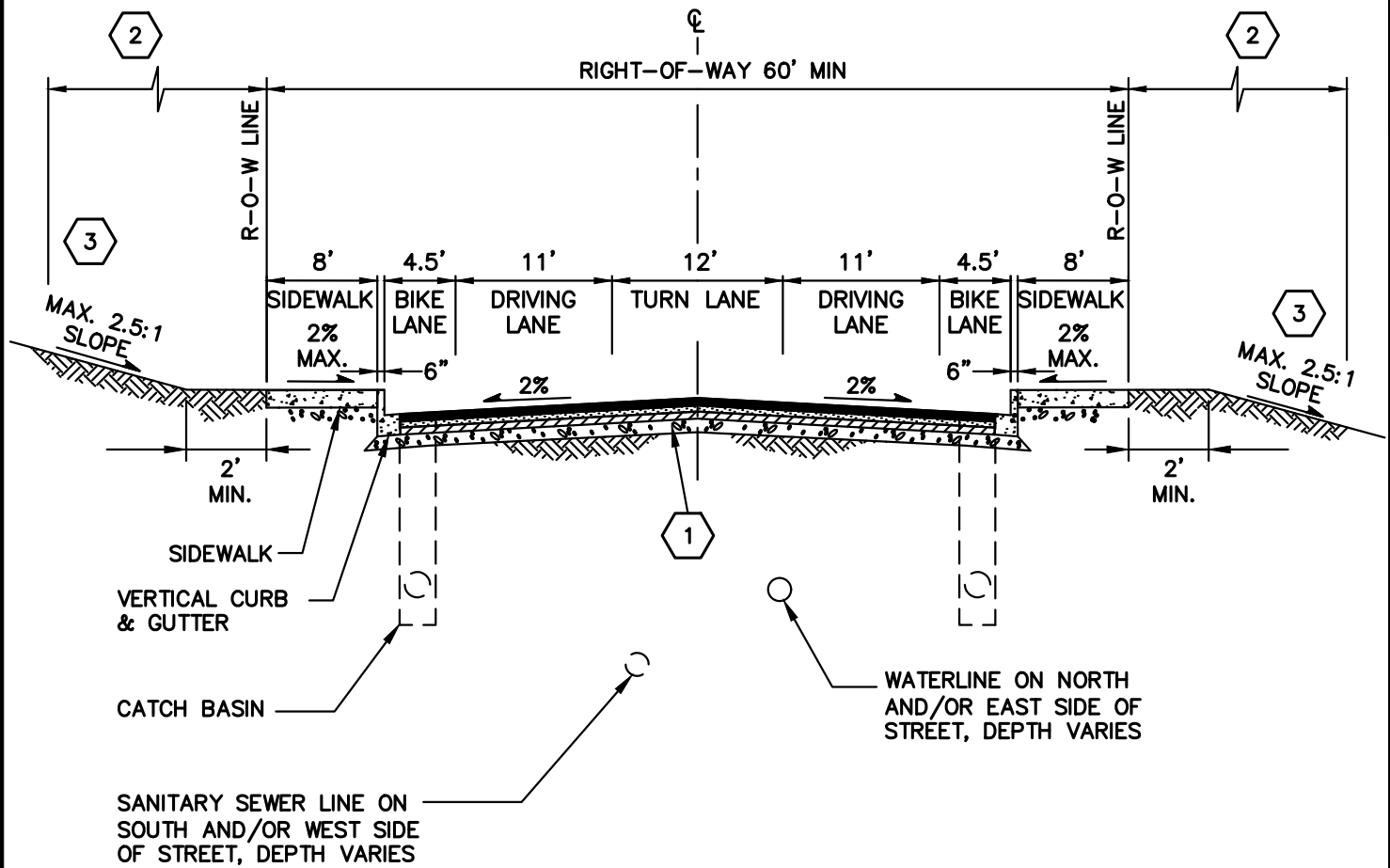
BY CITY

MAY 2018

DATE

DWG. NO.

T-6E

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER.
- 2 10' UTILITY AND/OR SLOPE EASEMENT AS REQUIRED.
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.



CITY OF NORTH BEND
PARK STREET—MAIN STREET
TO HEALY AVE
TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

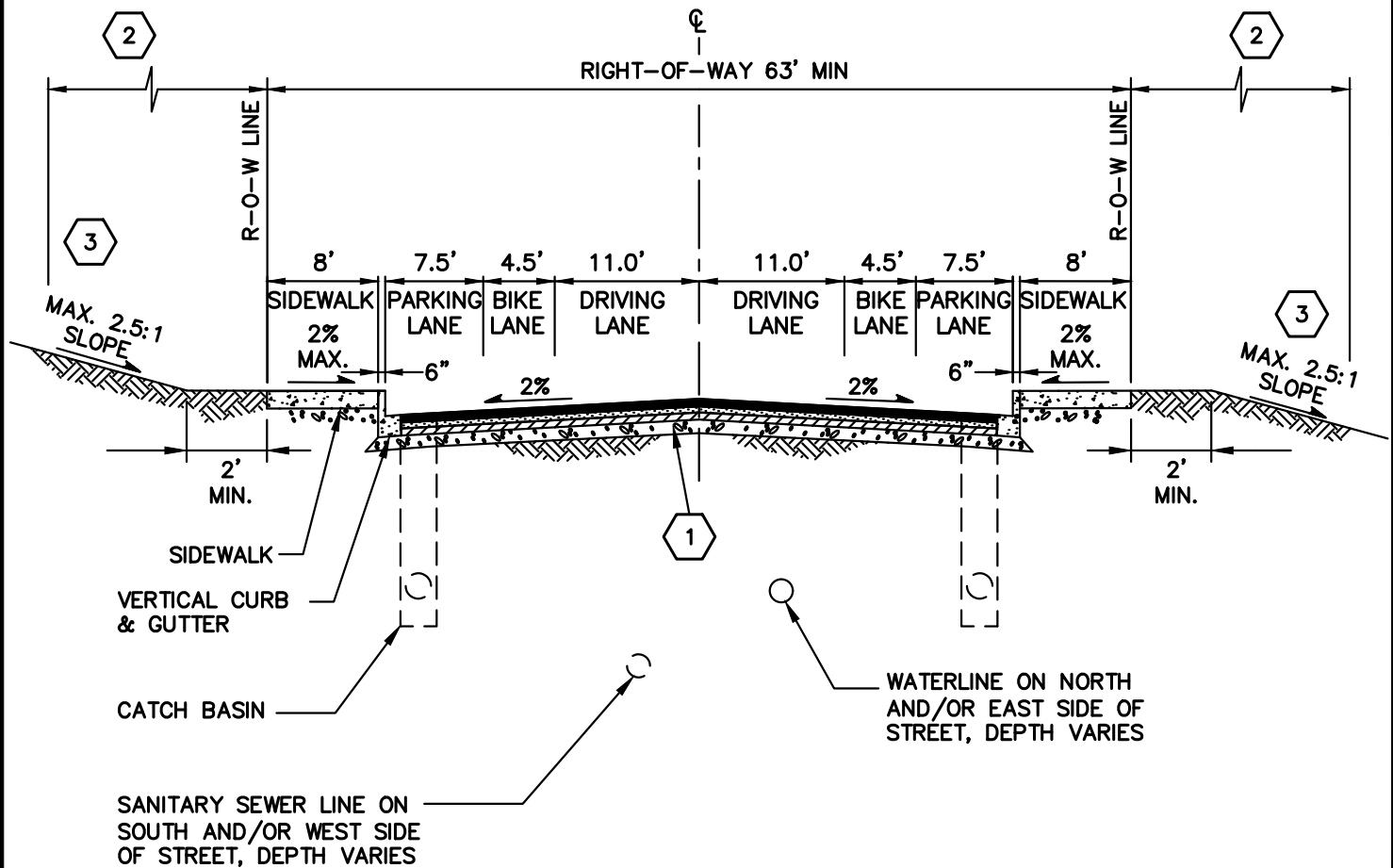
BY CITY

MAY 2018

DATE

DWG. NO.

T-6F

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER.
- 2 10' UTILITY AND/OR SLOPE EASEMENT AS REQUIRED.
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.



CITY OF NORTH BEND
PARK STREET-HEALY AVE
TO NORTH BEND WAY
TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

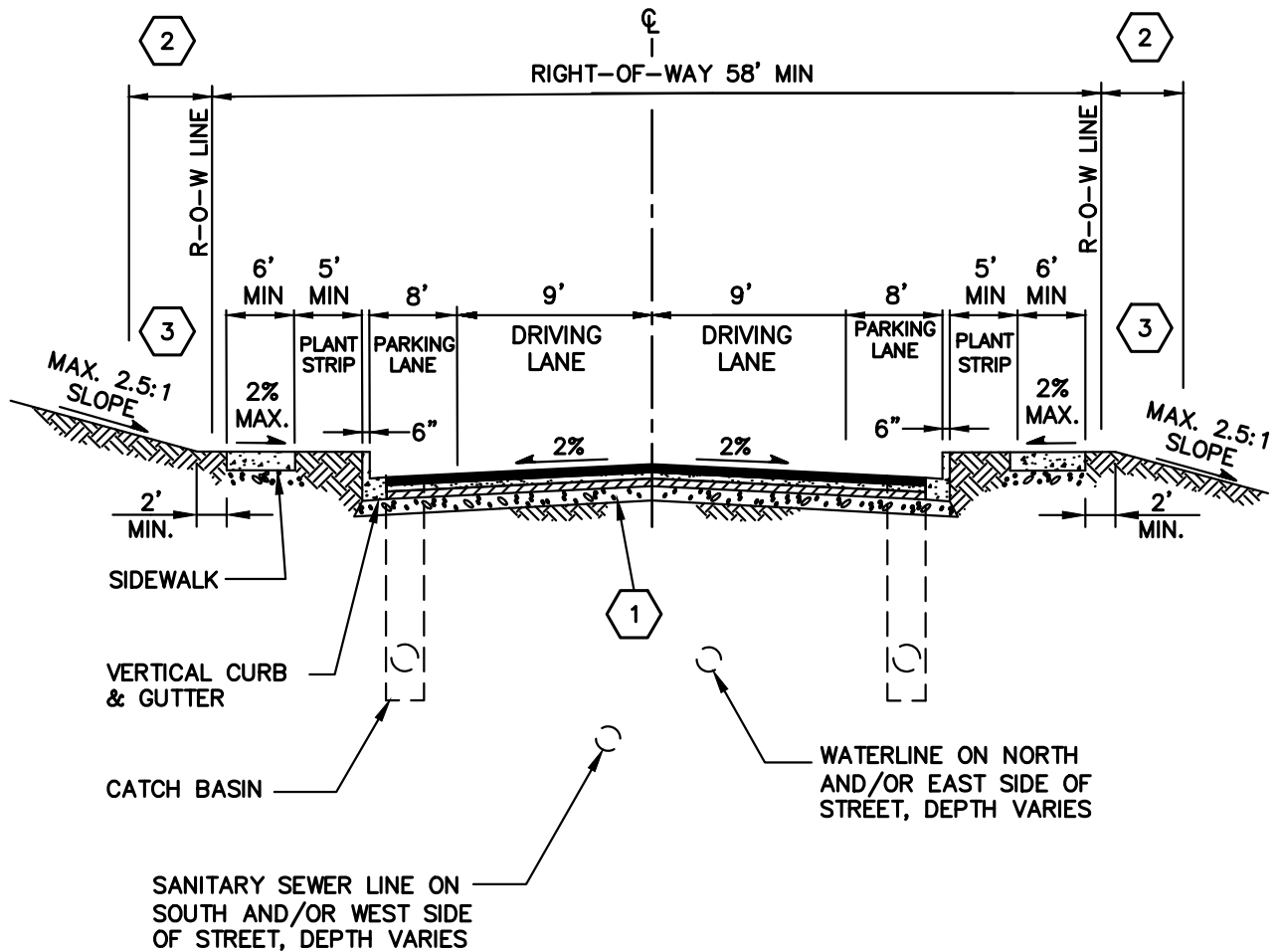
BY CITY

MAY 2018

DATE

DWG. NO.

T-6G

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER, OR MINIMUM PER SECTION 4.38.
- 2 5' UTILITY EASEMENT (BOTH SIDES)
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.



CITY OF NORTH BEND
 RESIDENTIAL LOCAL STREETS FOR
 COTTAGE HOUSING AND
 MULTIFAMILY TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

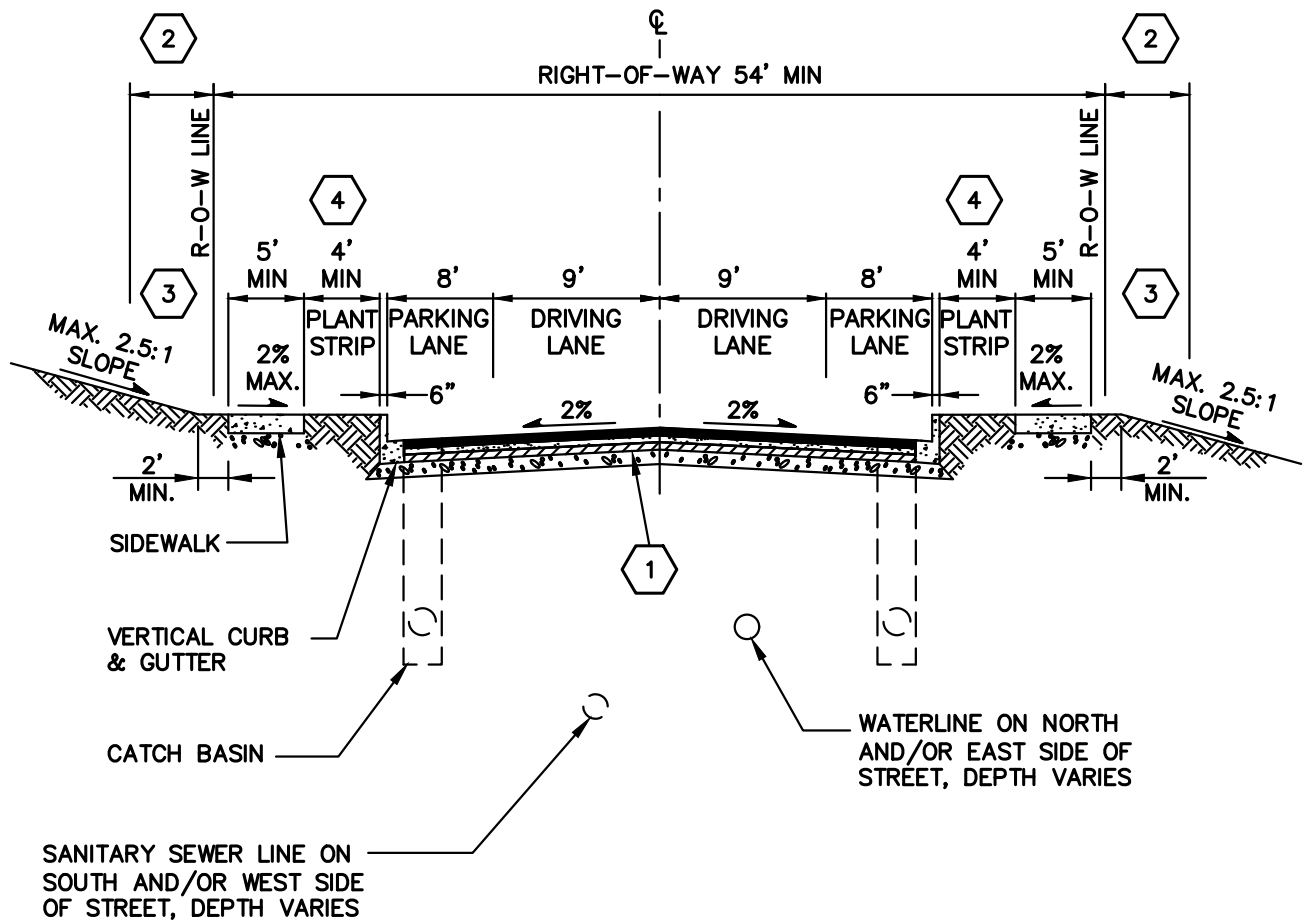
BY CITY

MAY 2018

DATE

DWG. NO.

T-7

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER, OR MINIMUM PER SECTION 4.38.
- 2 5' UTILITY EASEMENT (BOTH SIDES)
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.
- 4 DUE TO NARROW WIDTH OF PLANTING STRIP, VEGETATION SHALL INCLUDE GRASSES, ORNAMENTAL SHRUBS, AND GROUNDCOVER, BUT SHALL NOT INCLUDE TREES.



CITY OF NORTH BEND
RESIDENTIAL LOCAL STREETS FOR
LOW DENSITY RESIDENTIAL
TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

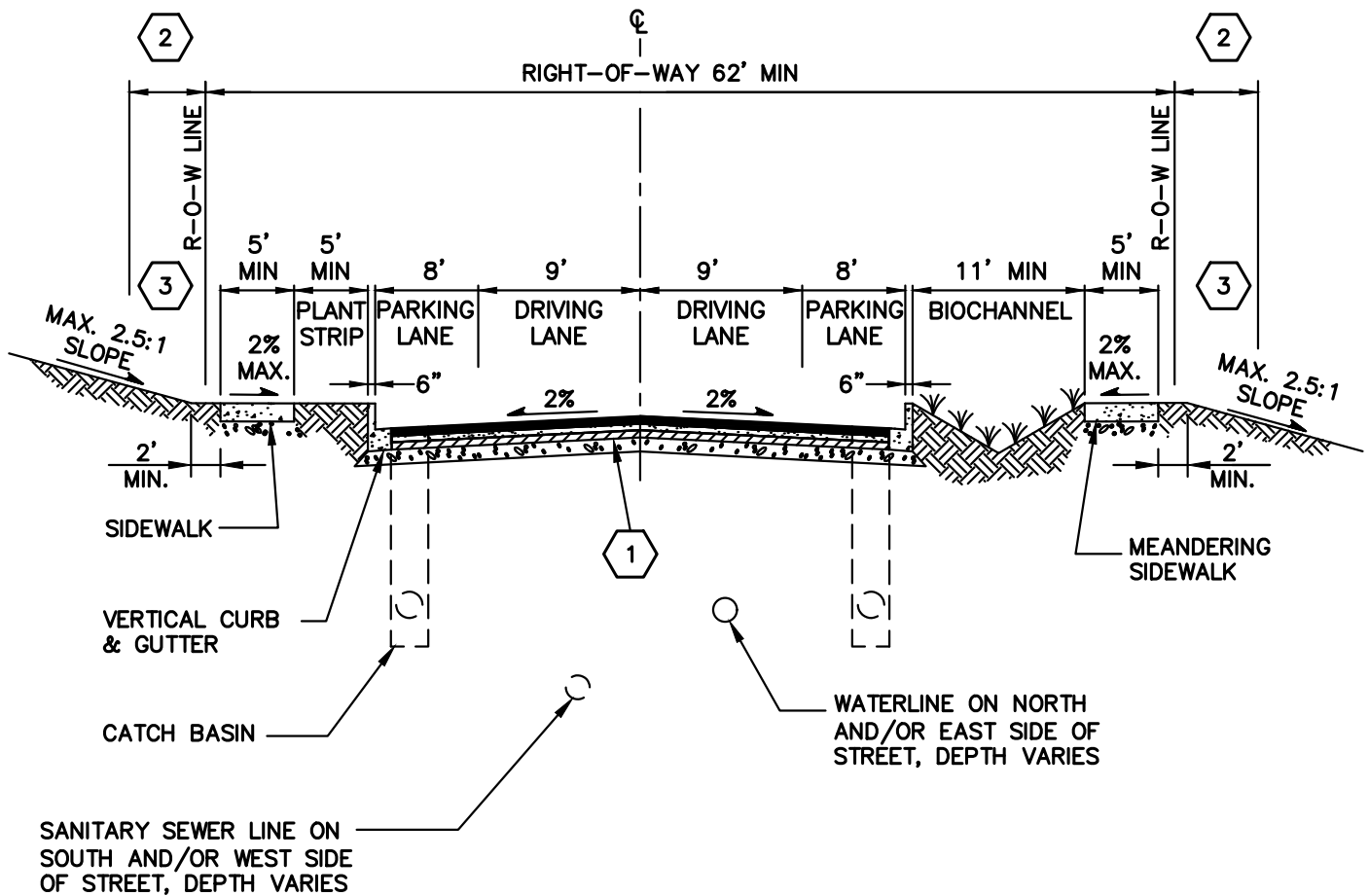
BY CITY

MAY 2018

DATE

DWG. NO.

T-8

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER, OR MINIMUM PER SECTION 4.38.
- 2 5' UTILITY EASEMENT (BOTH SIDES)
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.



CITY OF NORTH BEND
RESIDENTIAL LOCAL STREETS
LOW-IMPACT DESIGN
TYPICAL SECTION

APPROVED:

MARK RIGOS, P.E.

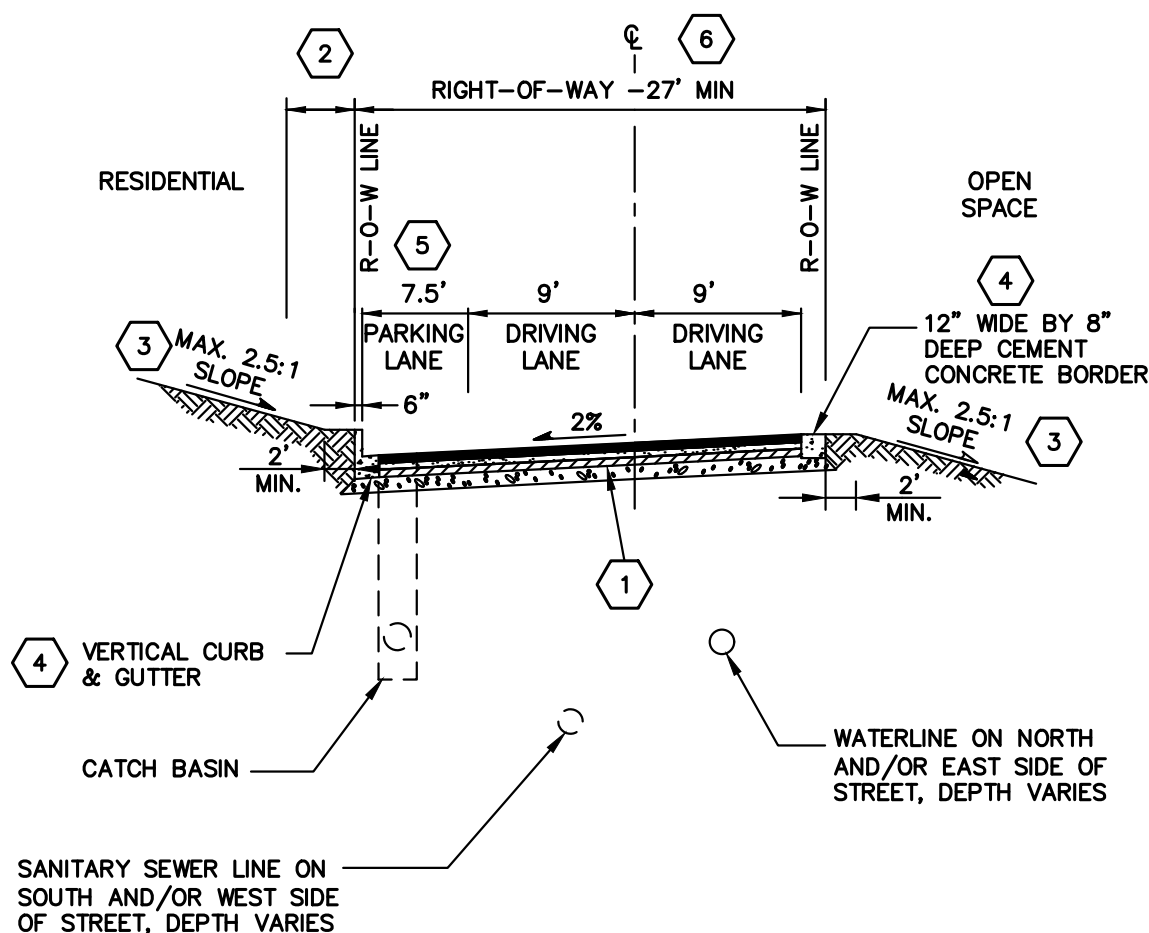
BY CITY

MAY 2018

DATE

DWG. NO.

T-9

**NOTES:**

- 1 PAVEMENT DESIGN BY WASHINGTON STATE LICENSED CIVIL ENGINEER AND AS APPROVED BY THE CITY ENGINEER, OR MINIMUM PER SECTION 4.38.
- 2 5' UTILITY EASEMENT (BOTH SIDES)
- 3 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.
- 4 AT-GRADE 12" CEMENT CONCRETE BORDER SHALL BE INSTALLED AT EDGE OF TRAVEL LANE ON OPEN SPACE SIDE OF ROADWAY. VERTICAL CURB AND GUTTER SHALL BE USED IN CONJUNCTION WITH PARKING LANE ON RESIDENTIAL SIDE OF ROADWAY.
- 5 PARKING LANE IS OPTIONAL. WHEN PARKING LANE IS PROVIDED, OPEN SPACE SIDE SHALL BE SIGNED WITH "NO PARKING-FIRE LANE" PER MUTCD. BOTH SIDES SHALL BE SIGNED "NO PARKING-FIRE LANE" WHEN PARKING LANE IS NOT PROVIDED. IF NO PARKING LANE IS PROVIDED, ROAD WIDTH SHALL BE MINIMUM OF 18 FEET, PLUS 12" CEMENT CONCRETE BORDER, EAST SIDE.
- 6 RIGHT-OF-WAY WIDTH SHALL BE 27 FEET WITH PARKING LANE AND 20 FEET WITHOUT PARKING LANE.



CITY OF NORTH BEND
WOONERF ROUTE FOR HOMES
FRONTING TO OPEN SPACE
TYPICAL SECTION - OPTION 1

APPROVED:

MARK RIGOS, P.E.

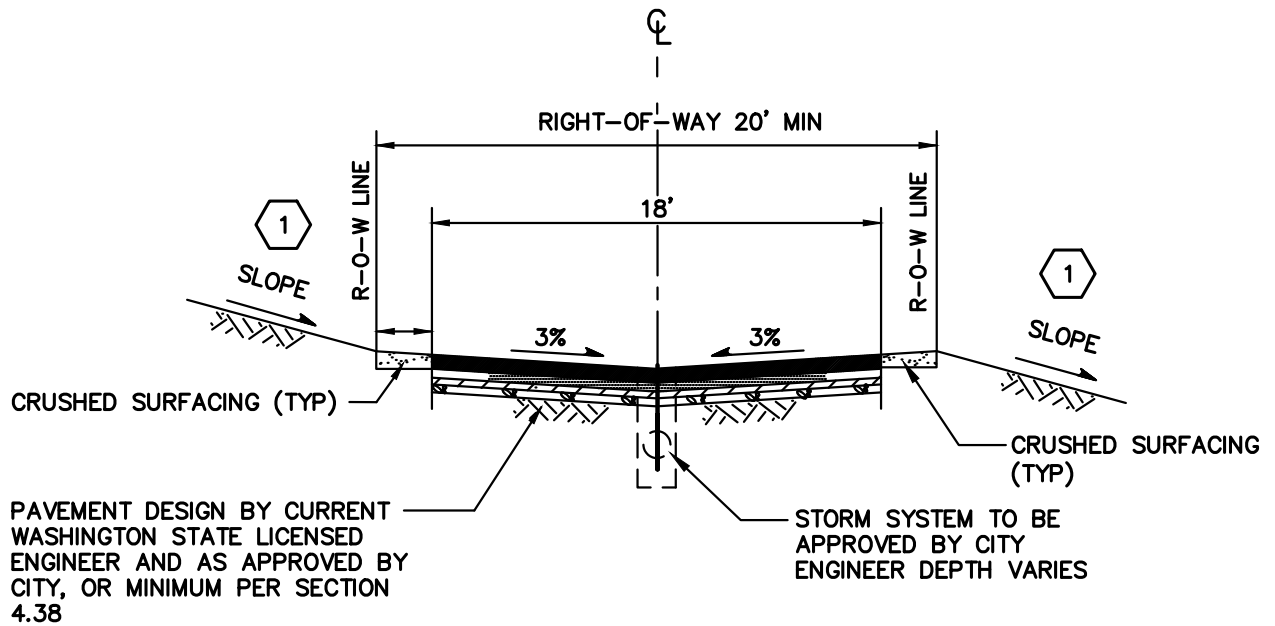
BY CITY

MAY 2018

DATE

DWG. NO.

T-10

**NOTES:**

- 1 SLOPE MUST ALLOW REASONABLE ACCESS TO ABUTTING PROPERTIES.



CITY OF NORTH BEND

ALLEY SECTION

APPROVED:

MARK RIGOS, P.E.

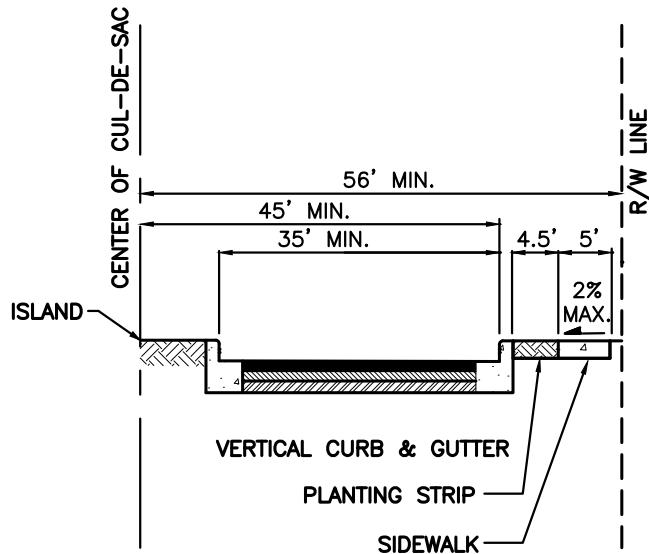
BY CITY

MAY 2018

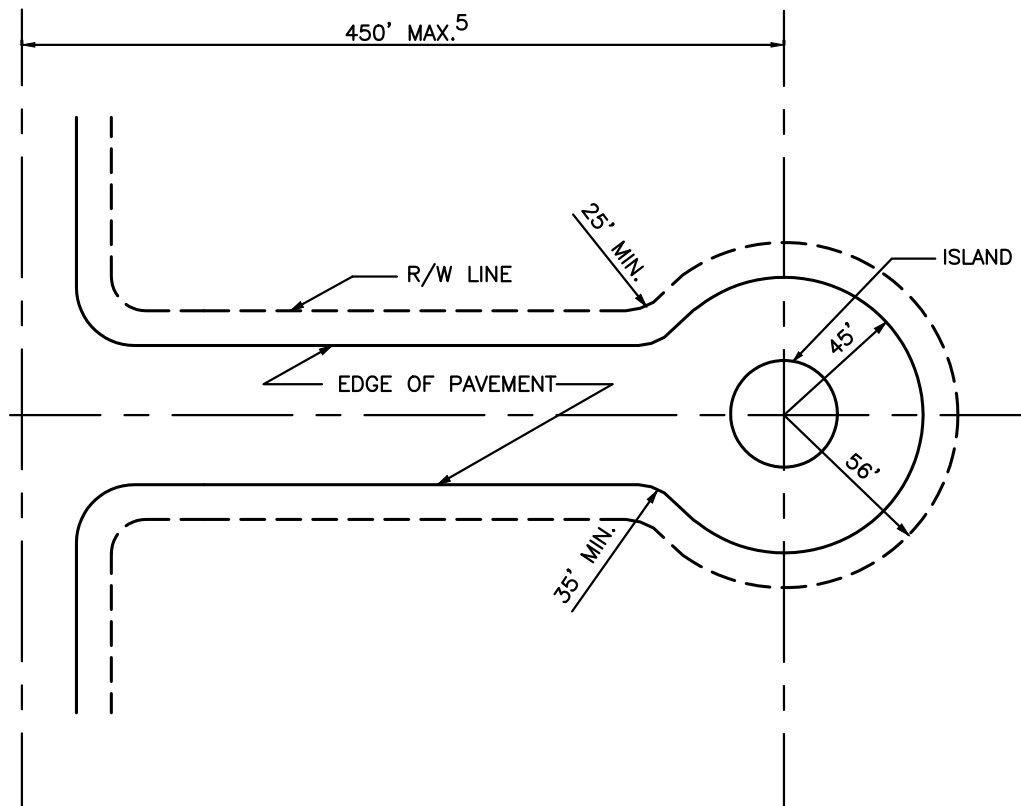
DATE

DWG. NO.

T-11

**NOTES:**

1. SEE SEC. 4.06.
2. ISLAND IS MANDATORY. MINIMUM DIAMETER 20'.
3. ISLAND AT CENTER OF BULB SHALL HAVE VERTICAL CURB.
4. ISLAND TO BE LANDSCAPED AND MAINTAINED BY ADJACENT PROPERTY OWNERS.
5. SEE SEC. 4.06 FOR CUL-DE-SAC LENGTH EXCEPTION.



CITY OF NORTH BEND

CUL-DE-SAC

APPROVED:

MARK RIGOS, P.E.

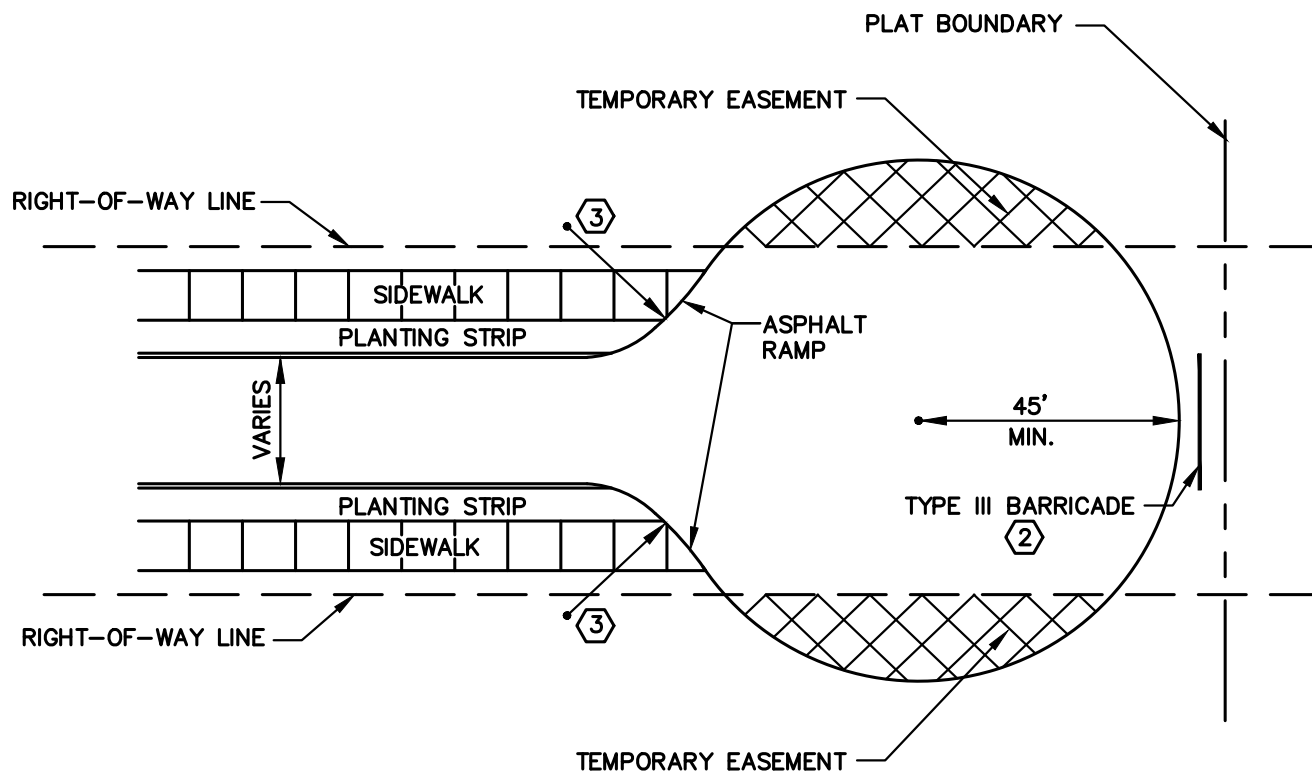
BY CITY

MAY 2018

DATE

DWG. NO.

T-12

**NOTES:**

- ① SEE SEC. 4.06.
- ② BARRICADE REQUIRED AT END OF BULB.
SEE SEC. 4.11.
- ③ 28 FOOT RADIUS (TYP)



CITY OF NORTH BEND

TEMPORARY CUL-DE-SAC

APPROVED:

MARK RIGOS, P.E.

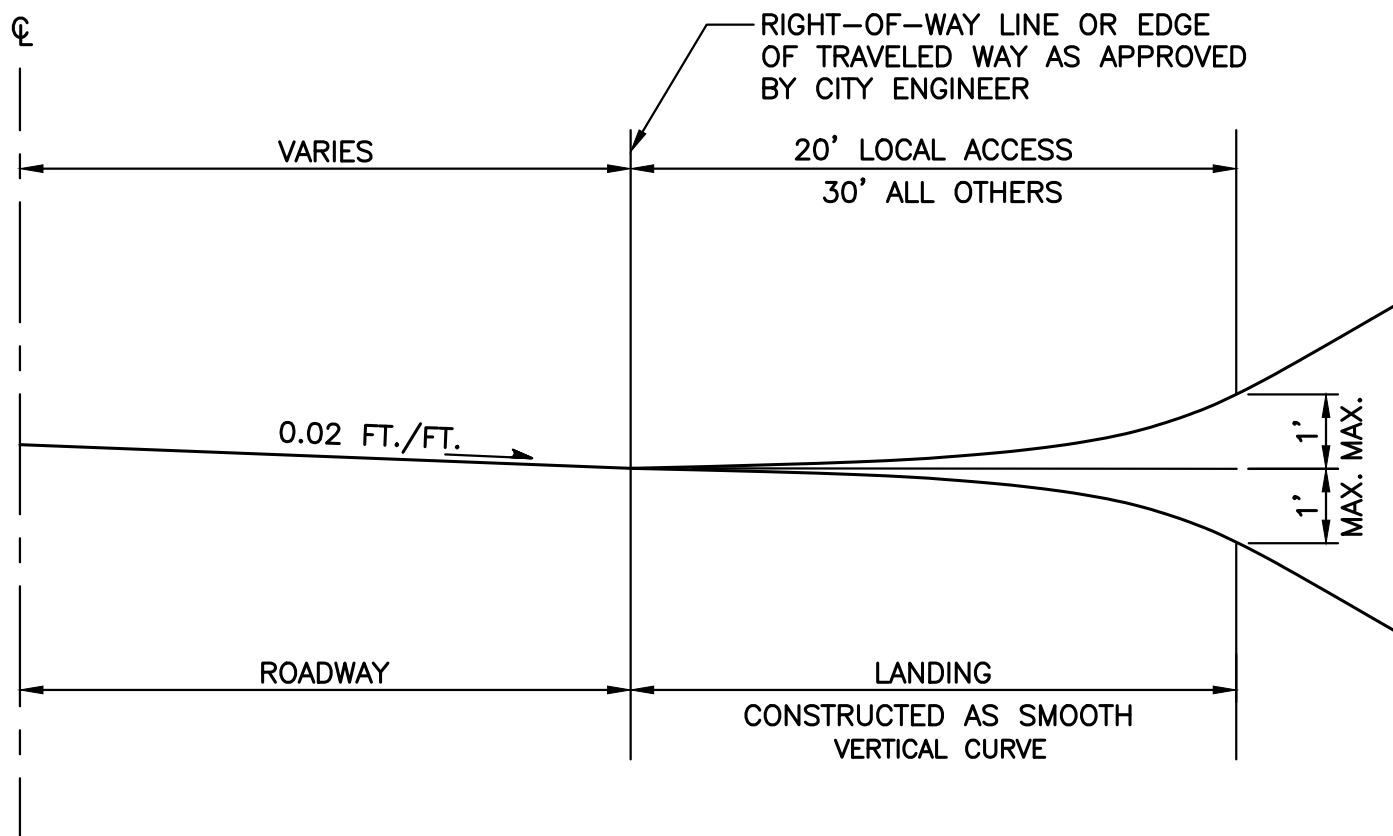
BY CITY

MAY 2018

DATE

DWG. NO.

T-13



SECTION

NOTES:

1. SEE SEC. 4.07 FOR INTERSECTION REQUIREMENTS.



CITY OF NORTH BEND

INTERSECTION LANDING

APPROVED:

MARK RIGOS, P.E.

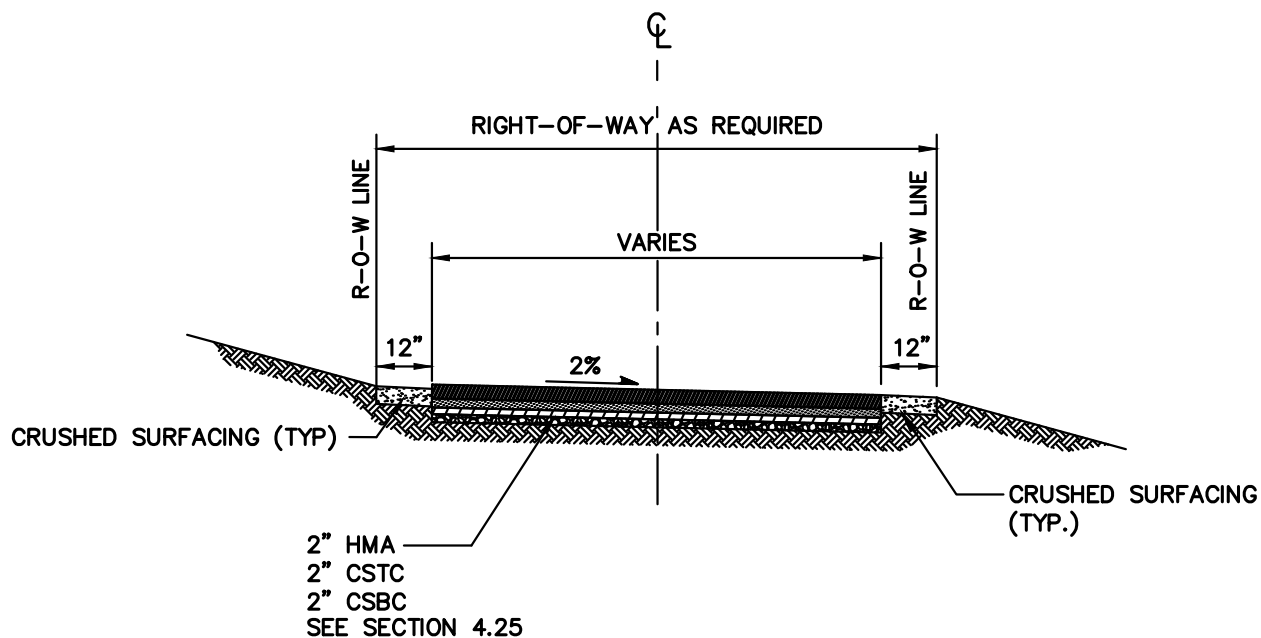
BY CITY

MAY 2018

DATE

DWG. NO.

T-14

**NOTES:**

SEPARATED WALKWAYS, BIKEWAYS AND TRAILS



CITY OF NORTH BEND
SEPARATED WALKWAY AND/OR
BIKEWAY SECTION

APPROVED:

MARK RIGOS, P.E.

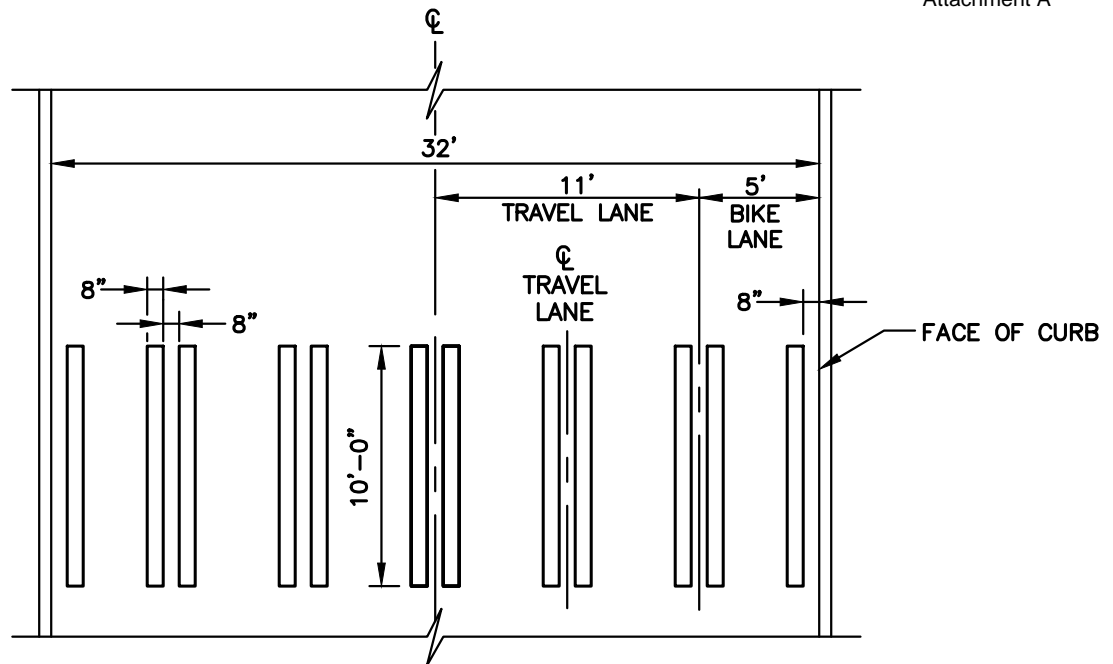
BY CITY

MAY 2018

DATE

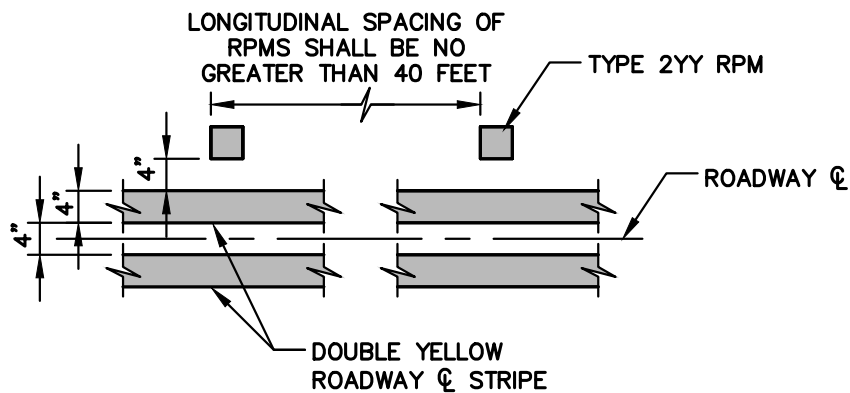
DWG. NO.

T-15



TYPICAL CROSSWALK ON ARTERIAL AND COLLECTOR STREETS

NTS



TYPICAL DOUBLE YELLOW CENTER STRIPE

NTS

NOTES:

1. ALL CROSSWALK STRIPING TO BE THERMOPLASTIC.
2. DOUBLE YELLOW STRIPING TO BE REFLECTIVE PAINT.



CITY OF NORTH BEND

TYPICAL STRIPING DETAILS

APPROVED:

MARK RIGOS, P.E.

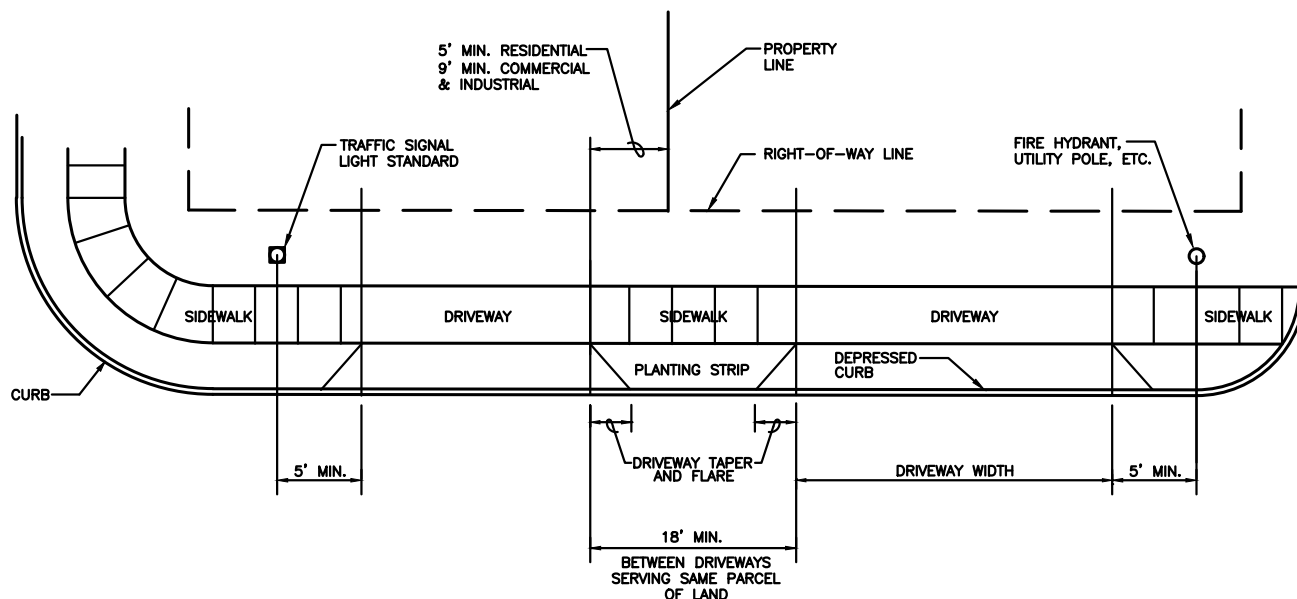
BY CITY

MAY 2018

DATE

DWG. NO.

T-16

**NOTES:**

1. SEE SECTION 4.24.
2. COMMERCIAL/INDUSTRIAL DRIVEWAYS MUST BE APPROVED BY THE ENGINEER, CONSIDERING BOTH TRAFFIC SAFETY AND THE ACTIVITY BEING SERVED. ALL COMMERCIAL/INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED MID-WIDTH.
3. DRIVEWAYS SHALL BE LOCATED AS FAR FROM THE INTERSECTION AS POSSIBLE.
4. NO PORTION OF ANY DRIVEWAY SHALL ENCROACH IN CURB RETURN.
5. DRIVEWAYS SHALL BE SETBACK A MINIMUM OF 5' FROM OBJECTS.
6. MAXIMUM DRIVEWAY SLOPE IS 15% (PERCENT).
7. MAXIMUM DRIVEWAY WIDTH IS 10 FEET FOR RESIDENTIAL FRONT-LOADED SINGLE-BAY GARAGES, SIDE LOADED GARAGES AND GARAGES AT THE REAR OF THE LOT; 16 FEET FOR RESIDENTIAL FRONT-LOADED DOUBLE AND TRIPLE BAY GARAGES; 30 FEET FOR COMMERCIAL.
8. DRIVEWAYS SHALL BE SETBACK A MINIMUM OF 20 FEET FROM CROSSWALKS AND TRAFFIC CALMING DEVICES.
9. ALL DRIVEWAYS SHALL BE PAVED WITH ASPHALT OR CONCRETE.

**CITY OF NORTH BEND****LOCATION AND WIDTH OF
NEW DRIVEWAYS**

APPROVED:

MARK RIGOS, P.E.

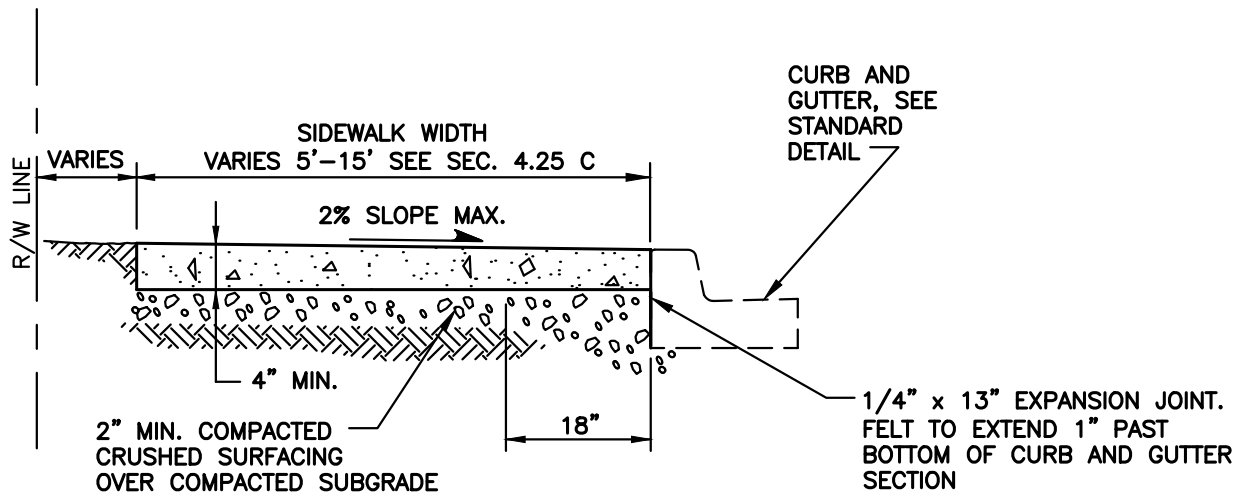
BY CITY

MAY 2018

DATE

DWG. NO.

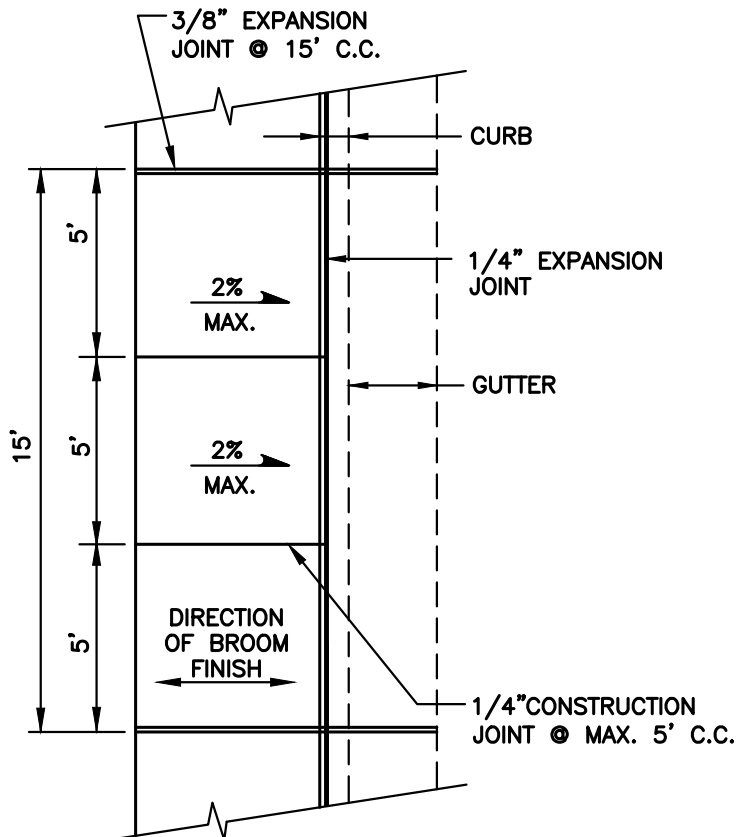
T-17



SECTION

NOTES:

1. THRU JOINTS AND CONTRACTION JOINTS SHALL BE AS SHOWN ABOVE. THRU JOINTS SHALL ALSO BE PLACED IN THE SIDEWALK SECTION AT DRIVEWAY RETURNS. ALL JOINTS SHALL BE CLEAN AND EDGED WITH AN EDGE HAVING 1/4" RADIUS. JOINT SHALL BE FLUSH WITH THE FINISHED SURFACE.
2. ALL METER BOXES, ETC. IN SIDEWALK AREAS SHALL HAVE 3/8" JOINT MATERIAL (FULL DEPTH) PLACED AROUND THEM BEFORE PLACING CONCRETE.
3. PREMOLDED JOINT FILLER SHALL BE ASPHALT SATURATED FELT OR PAPER, FULL DEPTH OF SIDEWALK.
4. FORMS SHALL BE EITHER WOOD OR STEEL AND SHALL MEET ALL REQUIREMENTS OF THESE SPECIFICATIONS.
5. CEMENT CONCRETE SHALL BE AIR-ENTRAINED CLASS 3000 PSI, EXCEPT CLASS 4000 SHALL BE USED AT DRIVEWAY CROSSINGS.
6. FOR SIDEWALKS GREATER THAN 8' IN WIDTH, ADDITIONAL EXPANSION AND CONTRACTION JOINTS WILL BE REQUIRED.



PLAN



CITY OF NORTH BEND

SIDEWALK WITHOUT PLANTING STRIP

APPROVED:

MARK RIGOS, P.E.

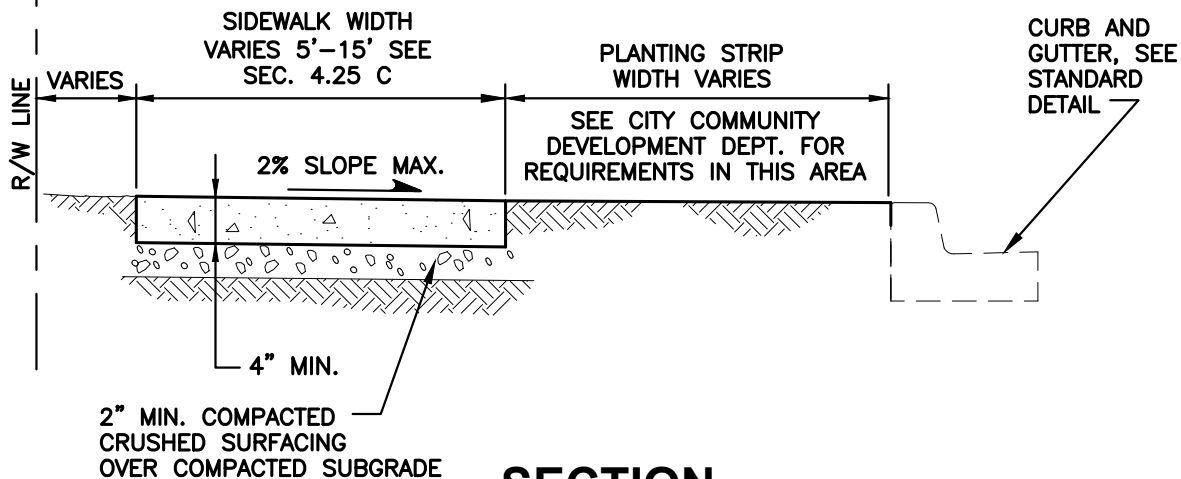
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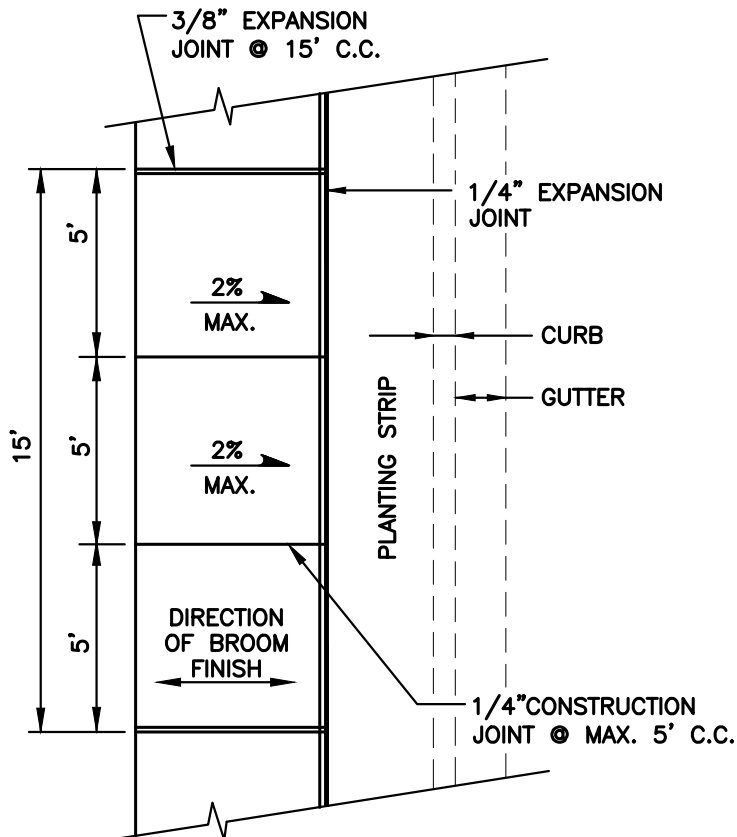
DATE

DWG. NO.

T-18

**NOTES:**

1. THRU JOINTS AND CONTRACTION JOINTS SHALL BE AS SHOWN ABOVE. THRU JOINTS SHALL ALSO BE PLACED IN THE SIDEWALK SECTION AT DRIVEWAY RETURNS. ALL JOINTS SHALL BE CLEAN AND EDGED WITH AN EDGE HAVING 1/4" RADIUS. JOINT SHALL BE FLUSH WITH THE FINISHED SURFACE.
2. ALL METER BOXES, ETC. IN SIDEWALK AREAS SHALL HAVE 3/8" JOINT MATERIAL (FULL DEPTH) PLACED AROUND THEM BEFORE PLACING CONCRETE.
3. PREMOLDED JOINT FILLER SHALL BE ASPHALT SATURATED FELT OR PAPER, FULL DEPTH OF SIDEWALK.
4. FORMS SHALL BE EITHER WOOD OR STEEL AND SHALL MEET ALL REQUIREMENTS OF THESE SPECIFICATIONS.
5. CEMENT CONCRETE SHALL BE AIR-ENTRAINED CLASS 3000 PSI, EXCEPT CLASS 4000 SHALL BE USED AT DRIVEWAY CROSSINGS.
6. FOR SIDEWALKS GREATER THAN 8' IN WIDTH, ADDITIONAL EXPANSION AND CONTRACTION JOINTS WILL BE REQUIRED.



CITY OF NORTH BEND

SIDEWALK WITH PLANTING STRIP

APPROVED:

MARK RIGOS, P.E.

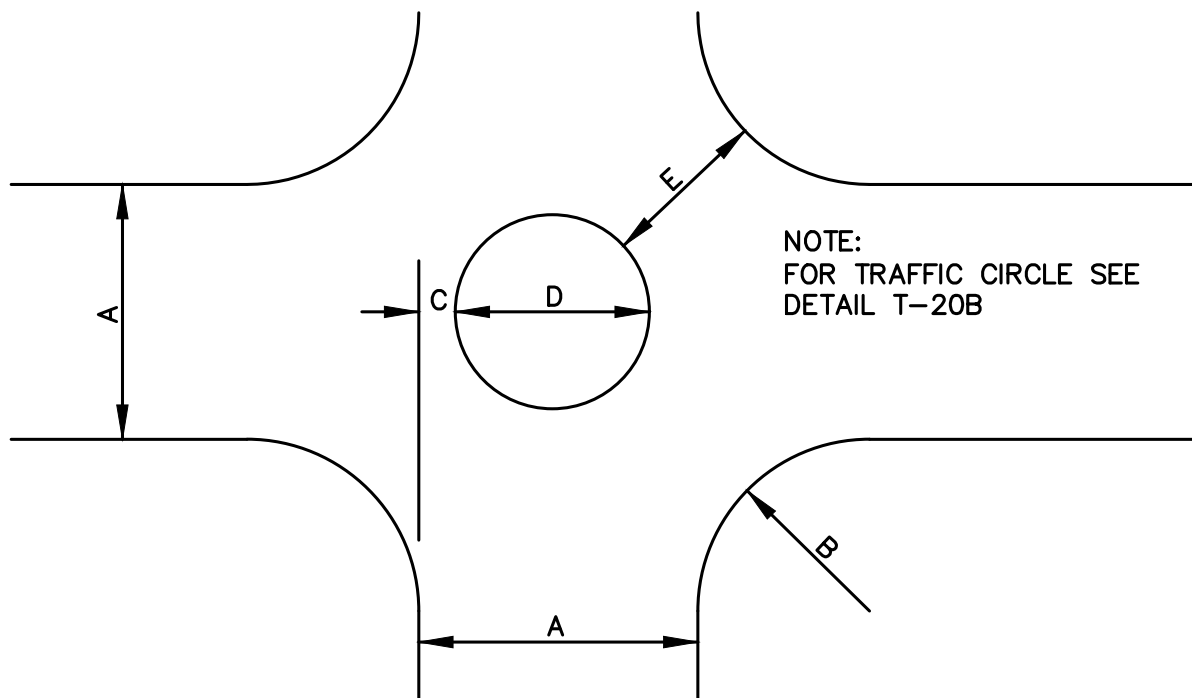
BY CITY

MAY 2018

DATE

DWG. NO.

T-19



INTERSECTION DIAGRAM

DIMENSIONS:

A – VARIES 22' – 36'

B – 25' MIN.

C – 1'-0" – 5'-0"

D – VARIES

E – 20' MIN.

NOTE: TRAFFIC CIRCLES SHALL NOT BE CONSTRUCTED
ON COLLECTOR OR LOCAL ACCESS STREETS.



CITY OF NORTH BEND

TRAFFIC CIRCLE

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

T-20A

**PLANT MATERIAL PER
CITY-APPROVED
LANDSCAPING PLAN**

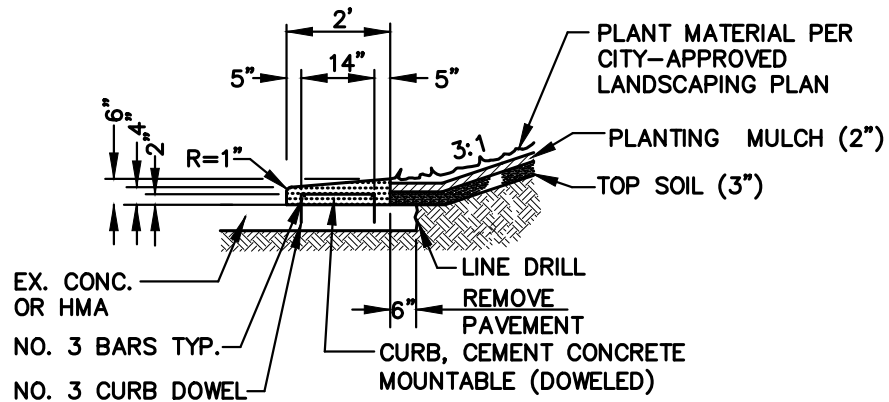
**CURB, CEMENT
CONCRETE
MOUNTABLE**

THROUGH JOINTS: —
USE 4 FOR
< 20' DIAMETER.
USE 8 FOR
≥ 20' DIAMETER.

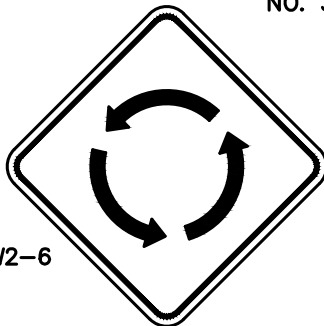
-2 - NO. 3 BARS
(TYP. BETWEEN JOINTS)

—3 — NO. 3 CURB DOWELS
(TYP. BETWEEN JOINTS)

TYPICAL TRAFFIC CIRCLE



TYPICAL SECTION A

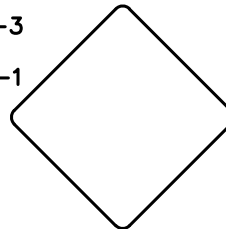


W2-6

W16-12P

TRAFFIC CIRCLE

OM1-3
OR
OM1-1



18" x 18" YELLOW HIGH
INTENSITY TYPE 1 OBJECT
MARKER PLACED IN TRAFFIC
CIRCLE FOR EACH APPROACH.

30" x 30" BLACK ON YELLOW
PLACED 75' TO 100' BACK
FROM TRAFFIC CIRCLE ON
EACH APPROACH.

NOTE: LANDSCAPED AREAS MUST BE PROVIDED WITH SEPARATE WATER METER. ALL IRRIGATION PLANS MUST BE APPROVED BY THE CITY.



CITY OF NORTH BEND

TRAFFIC CIRCLE

APPROVED:

MARK RIGOS, P.E.

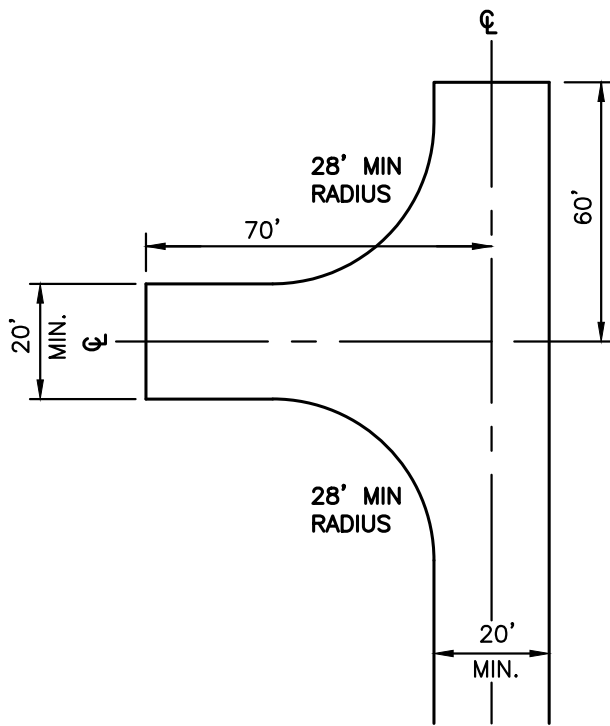
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MAY 2018

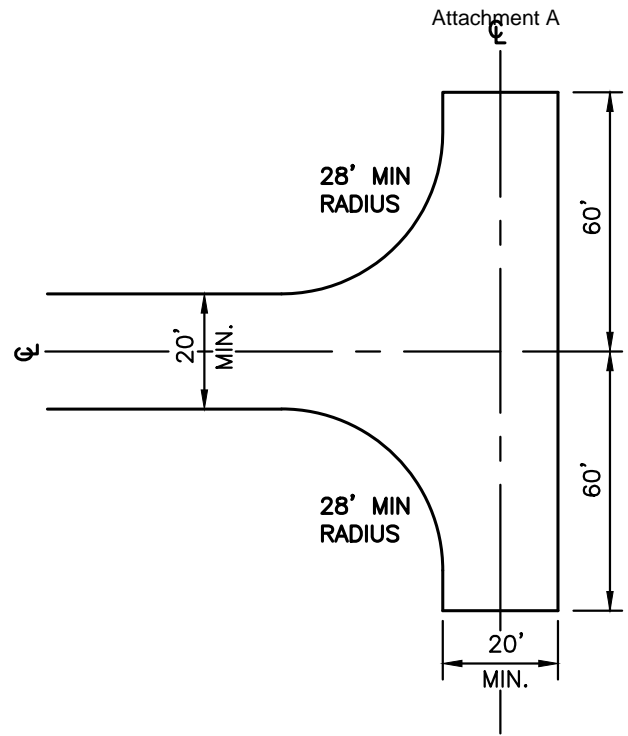
DATE _____

DWG. NO.

T-20B



OFFSET HAMMERHEAD



HAMMERHEAD

NOTES:

1. THIS TURNAROUND SHALL ONLY BE UTILIZED IF SPECIFICALLY APPROVED IN WRITING BY THE CITY.
2. ALL DIMENSIONS ARE MINIMUM REQUIREMENTS.
3. MINIMUM ROAD WIDTH SHOWN DOES NOT INCLUDE ANY SHOULDER DIMENSIONS OR CURB DIMENSIONS IF REQUIRED.
4. ALL LEGS OF THE TURNAROUND SHALL BE A MINIMUM OF 20 FEET OF UNOBSTRUCTED WIDTH.
5. THE TURNAROUND SHALL BE MARKED AS A FIRE LANE.
6. THE TURNAROUND SHALL MEET THE SAME GRADE AND SURFACING STANDARDS APPLIED TO FIRE ACCESS ROADS.
7. THE MAXIMUM CROSS SLOPE ON TURNAROUND SHALL NOT EXCEED SIX PERCENT.
8. ALTERNATIVE DESIGNS THAT DO NOT MEET THE CRITERIA ESTABLISHED IN THIS SECTION MAY BE APPROVED BY THE CITY.



CITY OF NORTH BEND

HAMMERHEAD TURNAROUND

APPROVED:

MARK RIGOS, P.E.

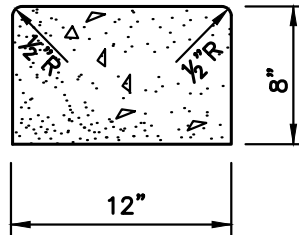
BY CITY

MAY 2018

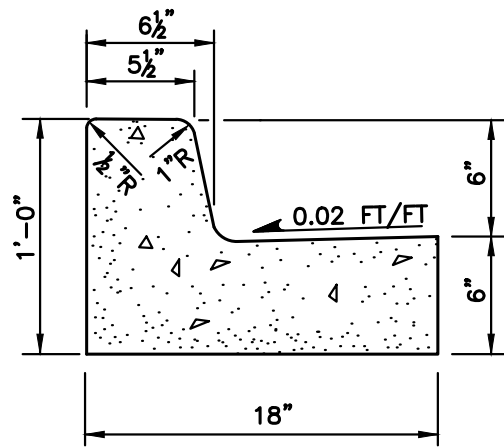
DATE

DWG. NO.

T-21



BORDER CURB



VERTICAL CONCRETE CURB AND GUTTER

NOTES:

1. THE CURBS, GUTTERS AND SIDEWALKS SHALL HAVE EXPANSION JOINTS (3/8") AT INTERVALS OF NOT GREATER THAN 15'-0"
2. CEMENT CONCRETE SHALL BE AIR-ENTRAINED CLASS 3000, EXCEPT CLASS 4000 SHALL BE USED AT DRIVEWAY APPROACHES.
3. WHEN REPAIRING AND/OR REPLACING CEMENT CONCRETE CURB AND GUTTER, EXISTING CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST JOINT, SAWCUTTING AND REMOVAL SHALL NOT BE ALLOWED.



CITY OF NORTH BEND

CONCRETE CURB
AND GUTTER

APPROVED:

MARK RIGOS, P.E.

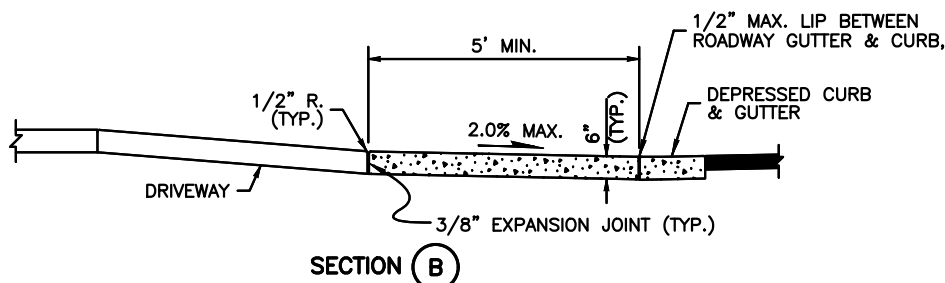
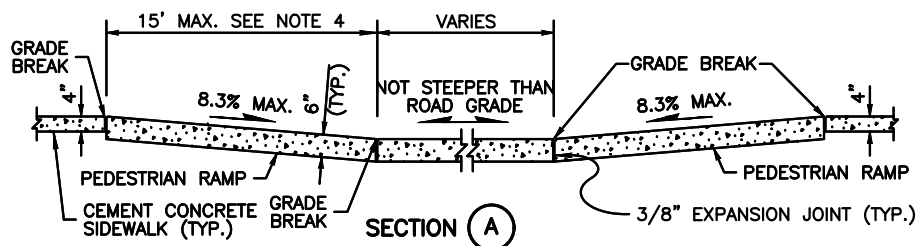
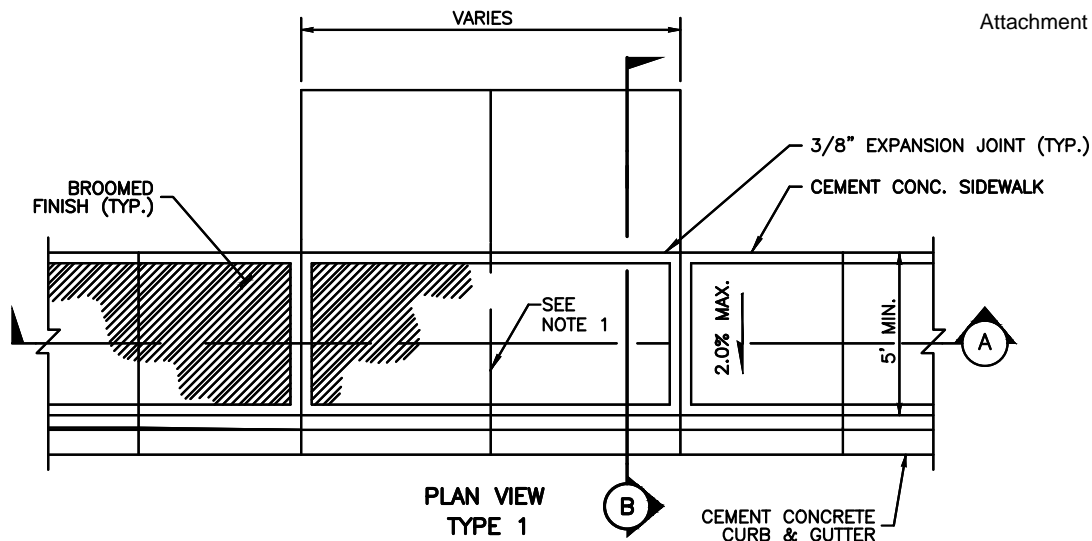
BY CITY

MAY 2018

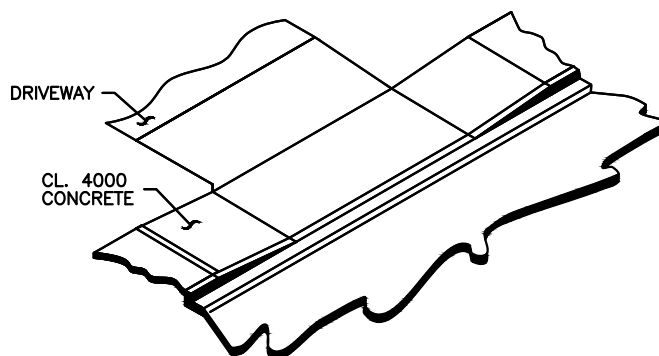
DATE

DWG. NO.

T-22

**NOTES:**

1. WHEN THE DRIVEWAY WIDTH EXCEEDS 15 FEET, CONSTRUCT A FULL DEPTH EXPANSION JOINT WITH 3/8" JOINT FILLER ALONG THE DRIVEWAY CENTERLINE. CONSTRUCT EXPANSION JOINTS PARALLEL WITH THE CENTERLINE AS REQUIRED AT 15 FEET MAXIMUM SPACING WHEN DRIVEWAY WIDTHS EXCEED 30 FEET.
2. ALL CEMENT CONCRETE SHALL BE AIR-ENTRAINED.
3. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE LINE BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
4. THE RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAX. LENGTH, THE RUNNING SLOPE OF THE RAMP SHALL BE AS FLAT AS FEASIBLE.
5. MINIMUM LENGTH OF FULL HEIGHT CURB BETWEEN DRIVEWAYS SHALL BE 2 FEET.

ISOMETRIC VIEW
TYPE 1**LEGEND**

SLOPE IN EITHER DIRECTION

CITY OF NORTH BEND
CEMENT CONCRETE DRIVEWAY
TYPE 1

APPROVED:

MARK RIGOS, P.E.

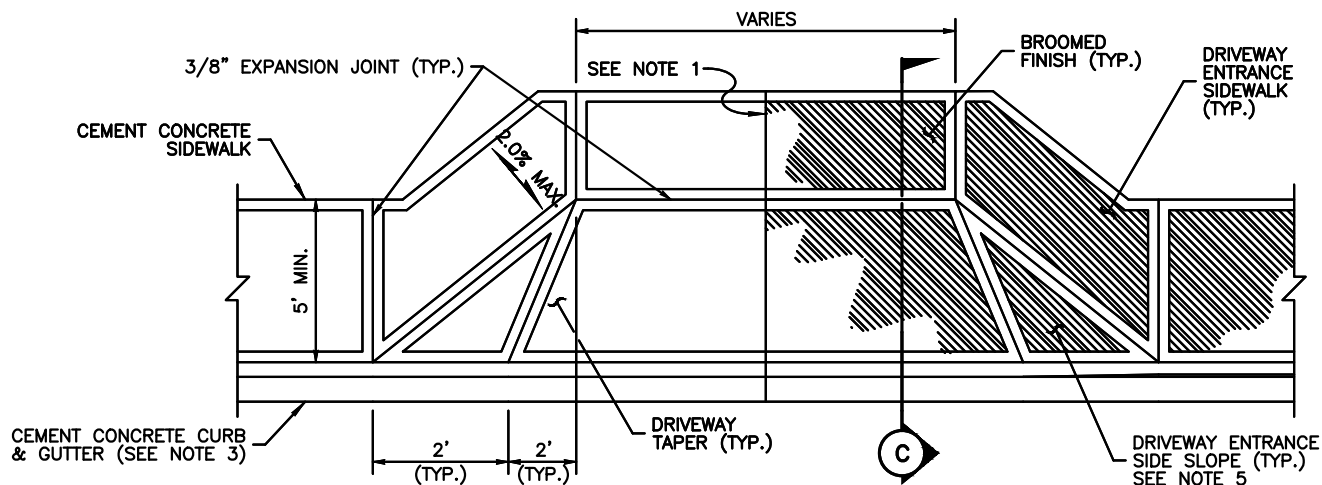
BY CITY

MAY 2018

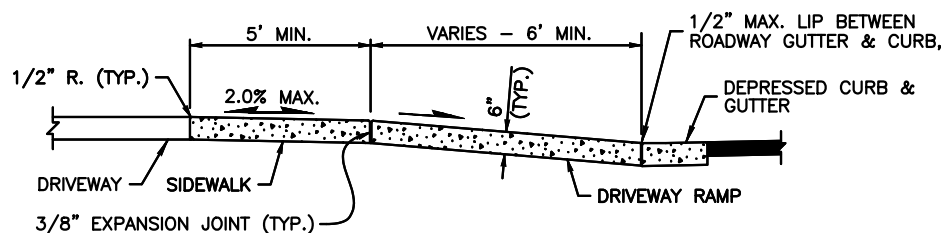
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DWG. NO.

T-23A



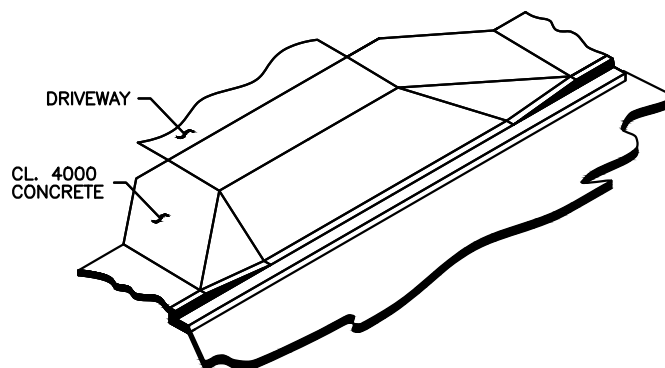
PLAN VIEW
TYPE 2



SECTION C

NOTES:

1. WHEN THE DRIVEWAY WIDTH EXCEEDS 15 FEET, CONSTRUCT A FULL DEPTH EXPANSION JOINT WITH 3/8" JOINT FILLER ALONG THE DRIVEWAY CENTERLINE. CONSTRUCT EXPANSION JOINTS PARALLEL WITH THE CENTERLINE AS REQUIRED AT 15 FEET MAXIMUM SPACING WHEN DRIVEWAY WIDTHS EXCEED 30 FEET.
2. ALL CEMENT CONCRETE SHALL BE AIR-ENTRAINED.
3. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE LINE BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
4. THE RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAX. LENGTH, THE RUNNING SLOPE OF THE RAMP SHALL BE AS FLAT AS FEASIBLE.
5. MINIMUM LENGTH OF FULL HEIGHT CURB BETWEEN DRIVEWAYS SHALL BE 2 FEET.



ISOMETRIC VIEW
TYPE 2

LEGEND



SLOPE IN EITHER DIRECTION



CITY OF NORTH BEND

CEMENT CONCRETE DRIVEWAY TYPE 2

APPROVED:

MARK RIGOS, P.E.

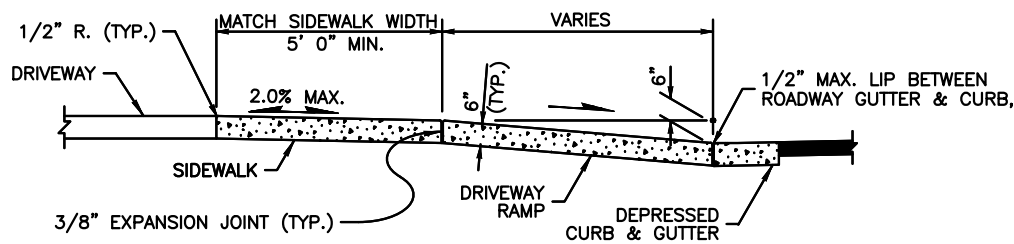
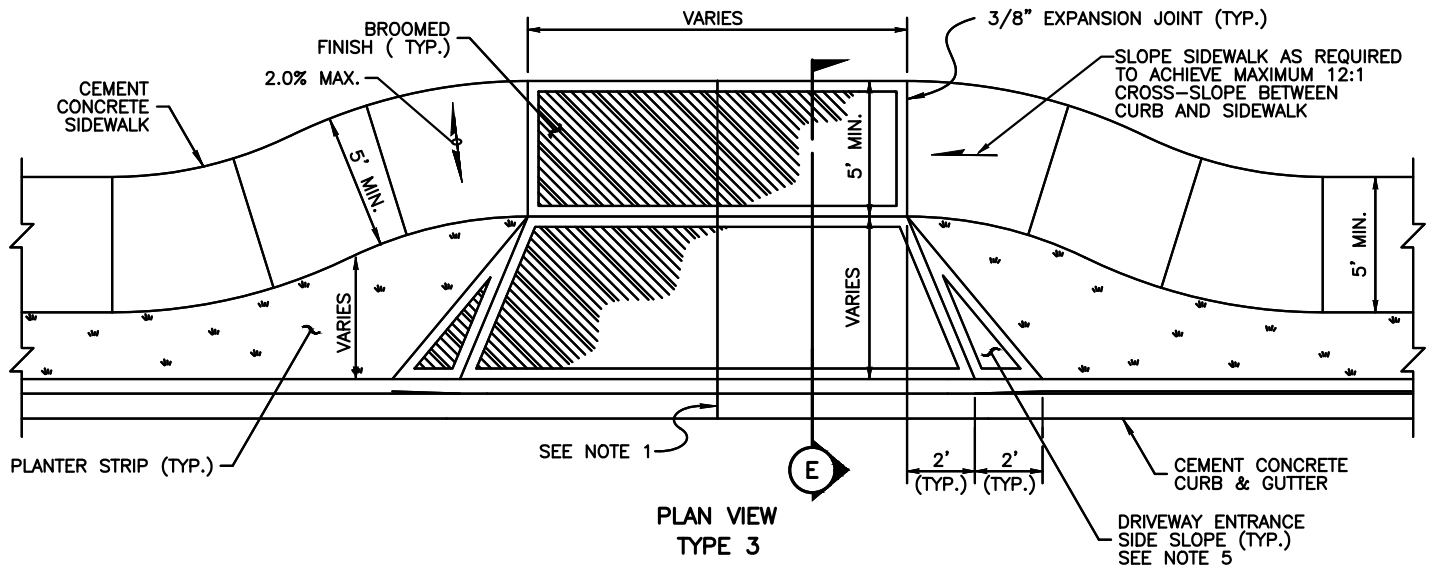
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MAY 2018

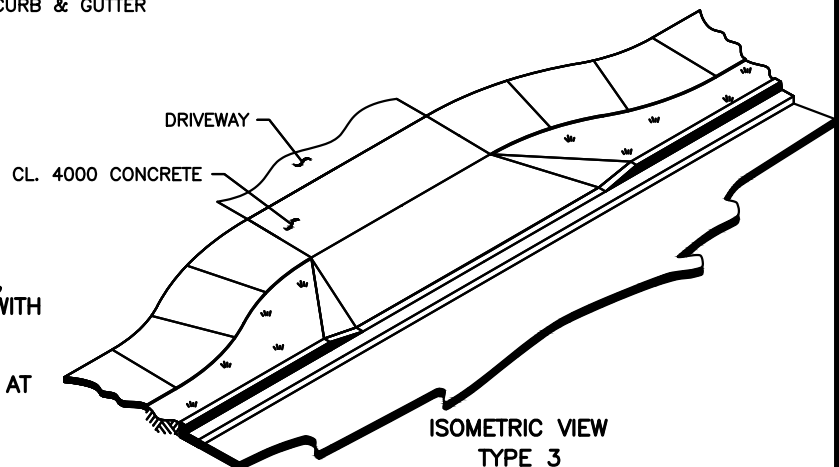
DATE

DWG. NO.

T-23B



SECTION (E)

**NOTES:**

1. WHEN THE DRIVEWAY WIDTH EXCEEDS 15 FEET, CONSTRUCT A FULL DEPTH EXPANSION JOINT WITH 3/8" JOINT FILLER ALONG THE DRIVEWAY CENTERLINE. CONSTRUCT EXPANSION JOINTS PARALLEL WITH THE CENTERLINE AS REQUIRED AT 15 FEET MAXIMUM SPACING WHEN DRIVEWAY WIDTHS EXCEED 30 FEET.
2. ALL CEMENT CONCRETE SHALL BE AIR-ENTRAINED.
3. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE LINE BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
4. THE RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAX. LENGTH, THE RUNNING SLOPE OF THE RAMP SHALL BE AS FLAT AS FEASIBLE.
5. MINIMUM LENGTH OF FULL HEIGHT CURB BETWEEN DRIVEWAYS SHALL BE 2 FEET.

LEGEND

SLOPE IN EITHER DIRECTION



CITY OF NORTH BEND
CEMENT CONCRETE DRIVEWAY
TYPE 3

APPROVED:

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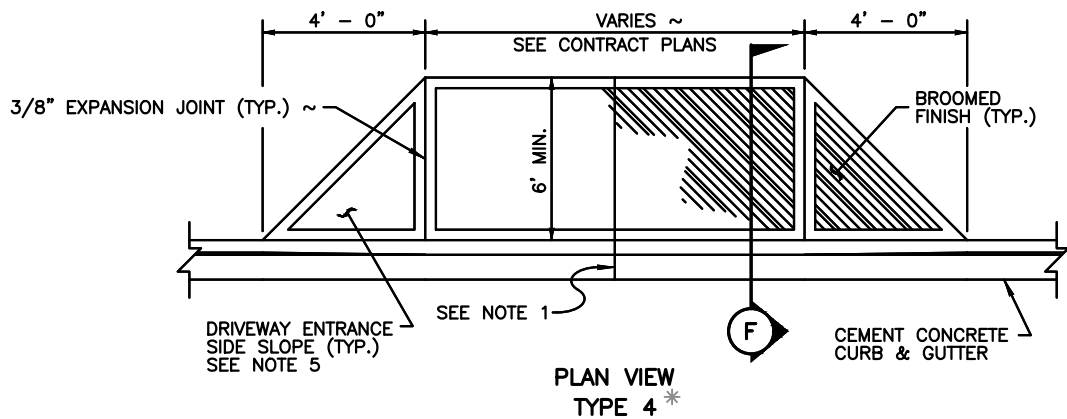
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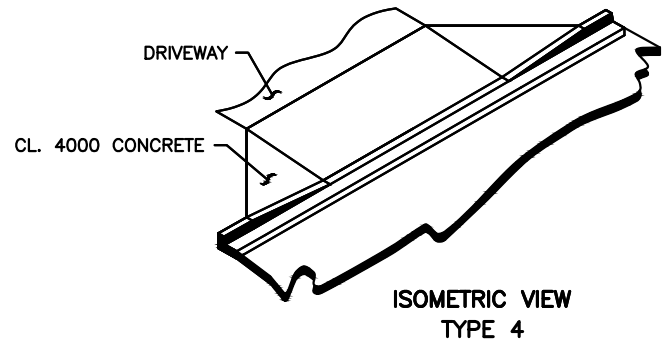
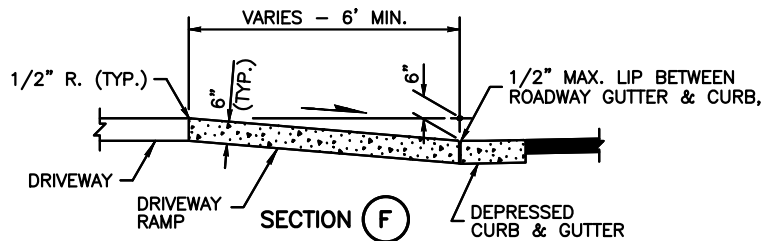
DATE

DWG. NO.

T-23C



* THIS ENTRANCE TYPE SHALL NOT BE USED ALONG A PEDESTRIAN ROUTE



NOTES:

1. WHEN THE DRIVEWAY WIDTH EXCEEDS 15 FEET, CONSTRUCT A FULL DEPTH EXPANSION JOINT WITH 3/8" JOINT FILLER ALONG THE DRIVEWAY CENTERLINE. CONSTRUCT EXPANSION JOINTS PARALLEL WITH THE CENTERLINE AS REQUIRED AT 15 FEET MAXIMUM SPACING WHEN DRIVEWAY WIDTHS EXCEED 30 FEET.
2. ALL CEMENT CONCRETE SHALL BE AIR-ENTRAINED.
3. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE LINE BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
4. THE RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAX. LENGTH, THE RUNNING SLOPE OF THE RAMP SHALL BE AS FLAT AS FEASIBLE.
5. MINIMUM LENGTH OF FULL HEIGHT CURB BETWEEN DRIVEWAYS SHALL BE 2 FEET.

LEGEND



SLOPE IN EITHER DIRECTION



CITY OF NORTH BEND

CEMENT CONCRETE DRIVEWAY TYPE 4

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MARK RIGOS, P.E.

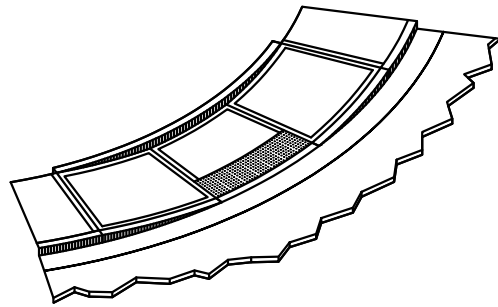
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MAY 2018

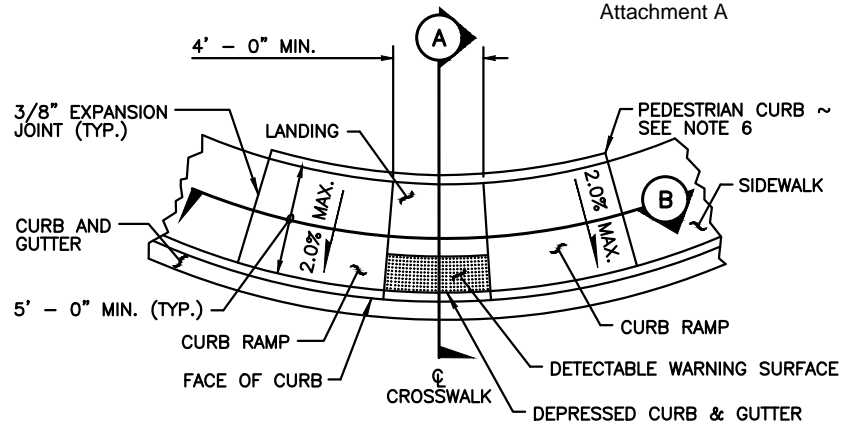
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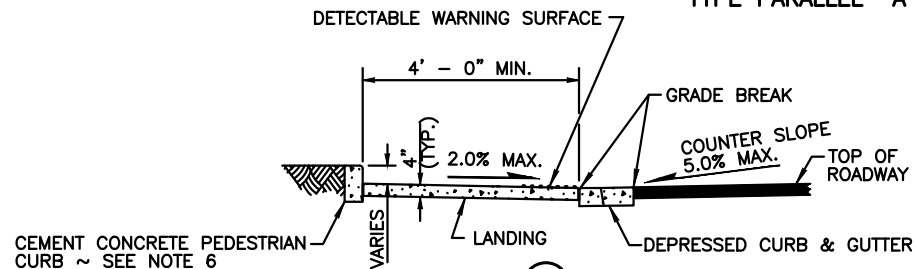
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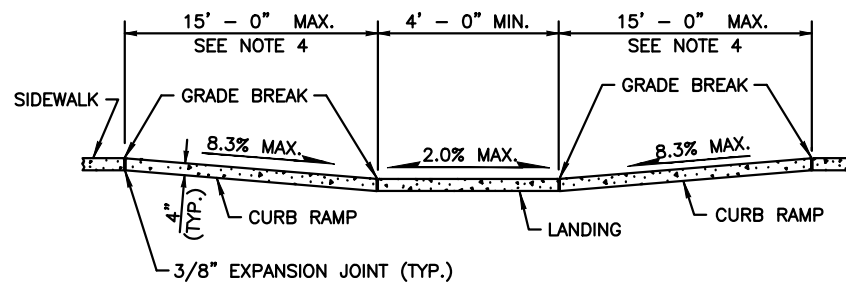
ISOMETRIC VIEW
TYPE PARALLEL A



PLAN VIEW
TYPE PARALLEL A



SECTION (A)



SECTION (B)

NOTES

1. CURB RAMP LOCATION SHALL BE PLACED WITHIN THE WIDTH OF THE ASSOCIATED CROSSWALK.
2. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
3. DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS, OR OTHER APPURTENANCES IN FRONT OF THE CURB RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
4. THE CURB RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15-FOOT MAX. LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE AS FLAT AS FEASIBLE.
5. CURB RAMP, LANDING, AND FLARES SHALL RECEIVE BROOM FINISH.
6. PEDESTRIAN CURB MAY BE OMITTED IF THE GROUND SURFACE AT THE BACK OF THE CURB RAMP AND/OR LANDING WILL BE AT THE SAME ELEVATION AS THE CURB RAMP OR LANDING AND THERE WILL BE NO MATERIAL TO RETAIN.
7. SUBGRADE AND FORM INSPECTION BY THE CITY SHALL BE REQUIRED PRIOR TO PLACING CEMENT CONCRETE. ALL CEMENT CONCRETE SHALL BE AIR-ENTRAINED.

LEGEND

 SLOPE IN EITHER DIRECTION



CITY OF NORTH BEND

PARALLEL CURB RAMP

APPROVED:

MARK RIGOS, P.E.

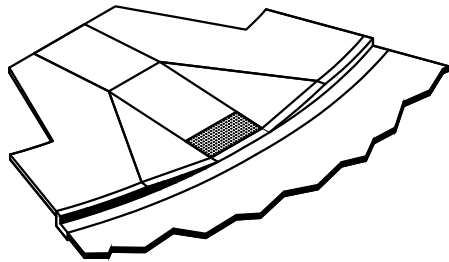
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MAY 2018

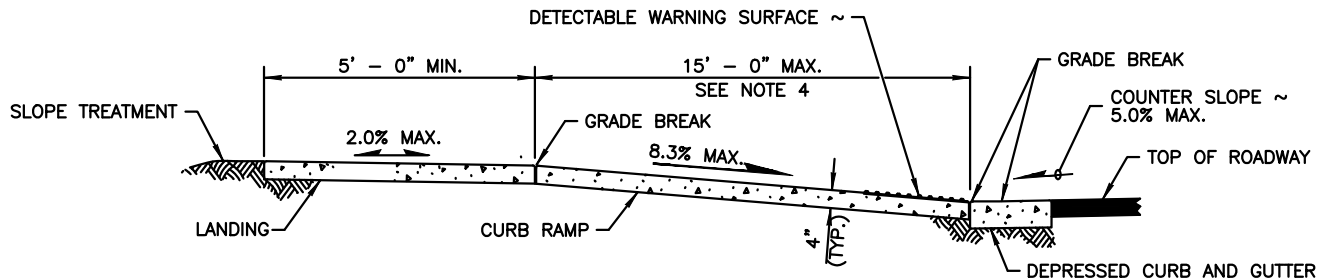
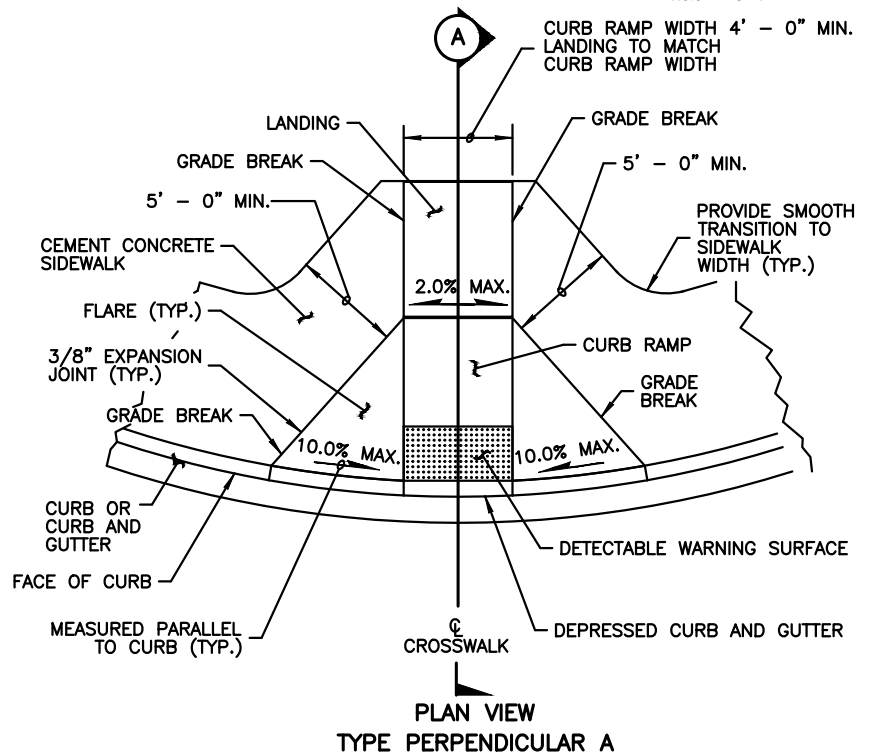
DATE

DWG. NO.

T-24A



ISOMETRIC VIEW
TYPE PERPENDICULAR A



NOTES

1. PROVIDE A SEPARATE CURB RAMP FOR EACH MARKED OR UNMARKED CROSSWALK. CURB RAMP LOCATION SHALL BE PLACED WITHIN THE WIDTH OF THE ASSOCIATED CROSSWALK.
2. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
3. DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS, OR OTHER APPURTENANCES IN FRONT OF THE CURB RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
4. THE CURB RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15- FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15-FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE AS FLAT AS FEASIBLE.
5. CURB RAMP, LANDING, AND FLARES SHALL RECEIVE BROOM FINISH.
6. SUBGRADE AND FORM INSPECTION BY THE CITY SHALL BE REQUIRED PRIOR TO PLACING CEMENT CONCRETE. ALL CEMENT CONCRETE SHALL BE AIR-ENTRAINED.

LEGEND



SLOPE IN EITHER DIRECTION



CITY OF NORTH BEND

PERPENDICULAR CURB RAMP

APPROVED:

MARK RIGOS, P.E.

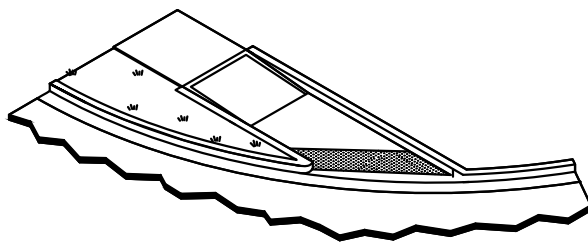
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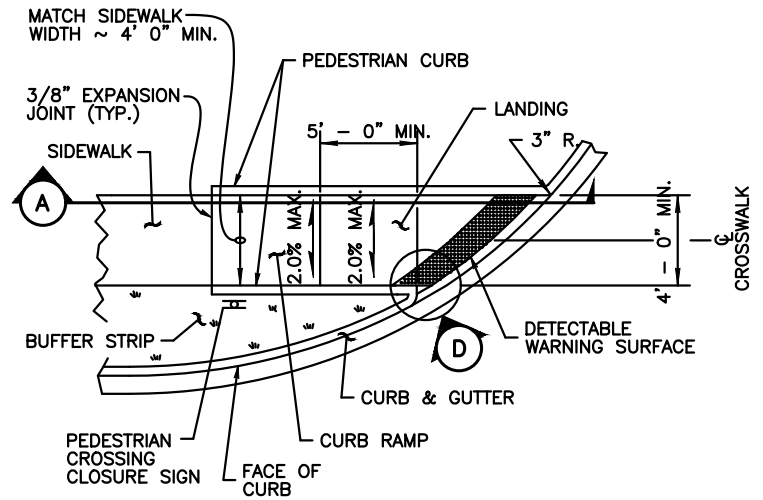
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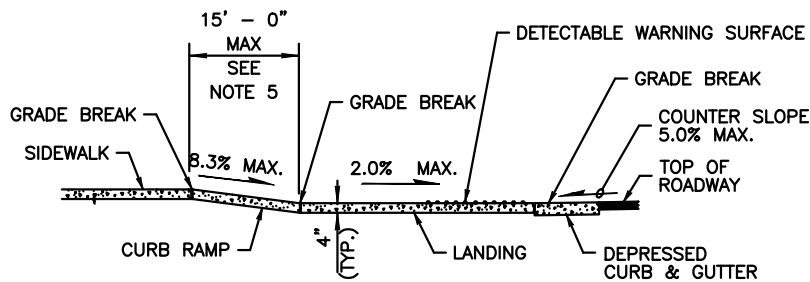
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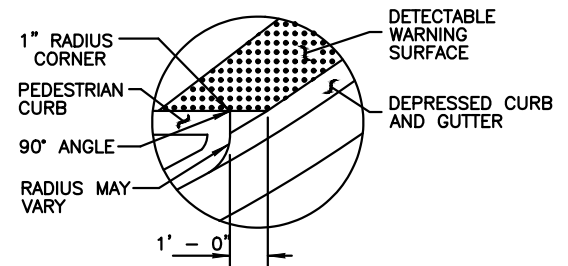
ISOMETRIC VIEW
TYPE SINGLE DIRECTION



PLAN VIEW
TYPE SINGLE DIRECTION



SECTION (A)



DETAIL (D)

NOTES

1. THIS PLAN IS TO BE USED WHERE PEDESTRIAN CROSSING IN ONE DIRECTION IS NOT PERMITTED.
2. CURB RAMP LOCATION SHALL BE PLACED WITHIN THE WIDTH OF THE ASSOCIATED CROSSWALK, OR AS SHOWN IN THE CONTRACT PLANS.
3. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
4. DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS OR OTHER APPURTENANCES IN FRONT OF THE CURB RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
5. CURB RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE AS FLAT AS FEASIBLE.
6. CURB RAMPS AND LANDINGS SHALL RECEIVE BROOM FINISH.
7. PEDESTRIAN CURB MAY BE OMITTED IF THE GROUND SURFACE AT THE BACK OF THE CURB RAMP AND/OR LANDING WILL BE AT THE SAME ELEVATION AS THE CURB RAMP OR LANDING AND THERE WILL BE NO MATERIAL TO RETAIN.
8. SUBGRADE AND FORM INSPECTION BY THE CITY SHALL BE REQUIRED PRIOR TO PLACING CEMENT CONCRETE. ALL CEMENT CONCRETE SHALL BE AIR-ENTRAINED.

LEGEND

 SLOPE IN EITHER DIRECTION



CITY OF NORTH BEND

SINGLE DIRECTION CURB RAMP

APPROVED:

MARK RIGOS, P.E.

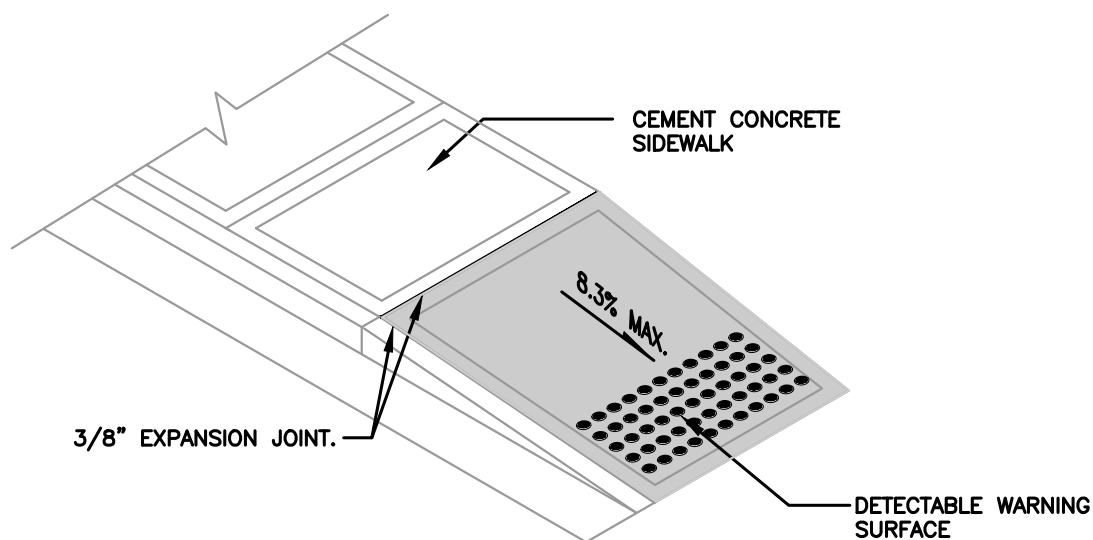
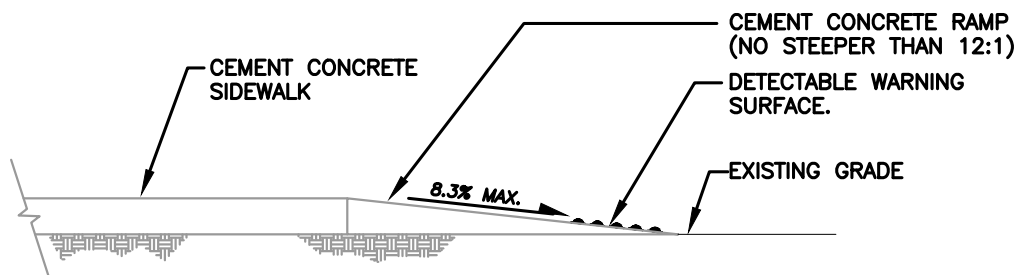
BY CITY

MAY 2018

DATE

DWG. NO.

T-24C

PLAN VIEW**ISOMETRIC VIEW****ELEVATION VIEW**

NOTE: ALL CEMENT CONCRETE SHALL
BE AIR-ENTRAINED



CITY OF NORTH BEND

SIDEWALK RAMP TO SHOULDER

APPROVED:

MARK RIGOS, P.E.

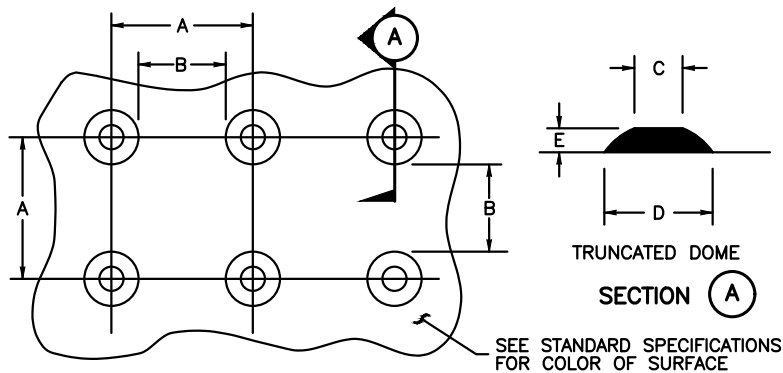
BY CITY

MAY 2018

DATE

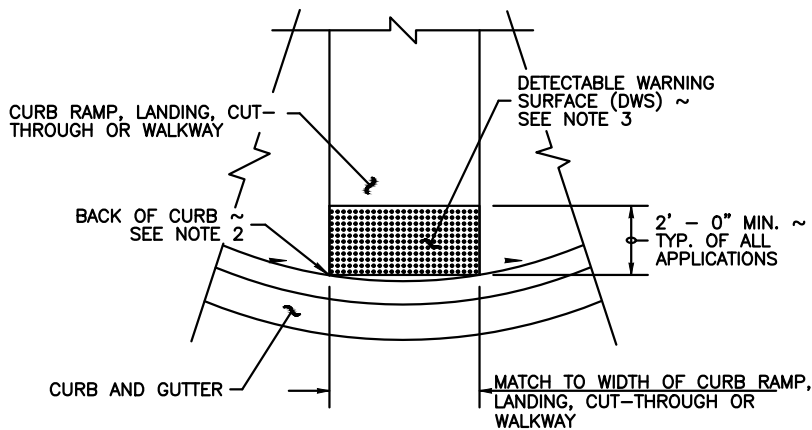
DWG. NO.

T-24D



	MIN.	MAX.
A	1.60"	2.40"
B	0.65"	—
C	0.45"	0.90"
D	0.9"	1.40"
E	0.2"	0.2"

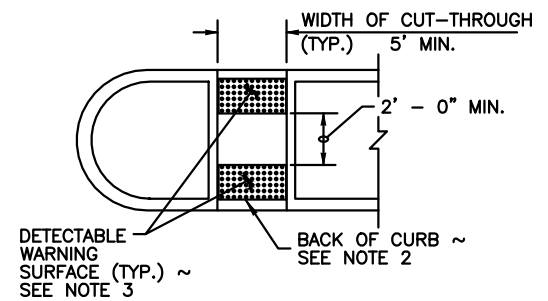
TRUNCATED DOME DETAILS



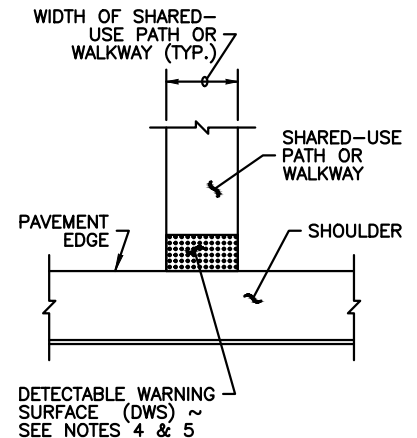
DETECTABLE WARNING SURFACE DETAIL

NOTES

1. THE DETECTABLE WARNING SURFACE (DWS) SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARES) OR THE LANDING.
2. THE DETECTABLE WARNING SURFACE SHALL BE PLACED AT THE BACK OF CURB, AND NEED NOT FOLLOW THE RADIUS.
3. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED TO BE PERPENDICULAR TO THE GRADE BREAK AT THE BACK OF CURB.
4. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED TO BE PARALLEL TO THE DIRECTION OF TRAVEL.
5. IF CURB AND GUTTER ARE NOT PRESENT, SUCH AS A SHARED-USE PATH CONNECTION, THE DETECTABLE WARNING SURFACE SHALL BE PLACED AT THE PAVEMENT EDGE.
6. WHEN THE GRADE BREAK BETWEEN THE CURB RAMP AND THE LANDING IS LESS THAN OR EQUAL TO 5 FT. FROM THE BACK OF CURB AT ALL POINTS, PLACE THE DETECTABLE WARNING SURFACE ON THE BOTTOM OF THE CURB RAMP.



MEDIAN CUT-THROUGH



SHARED-USE PATH CONNECTION



CITY OF NORTH BEND

DETECTABLE WARNING SURFACE

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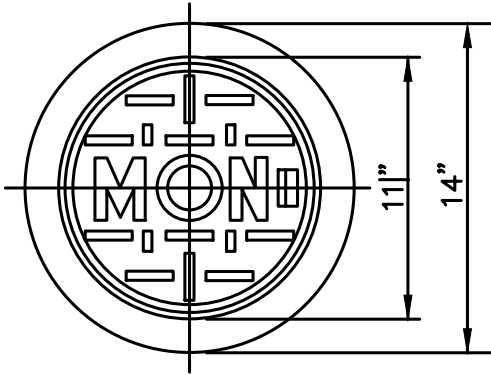
BY CITY

MAY 2018

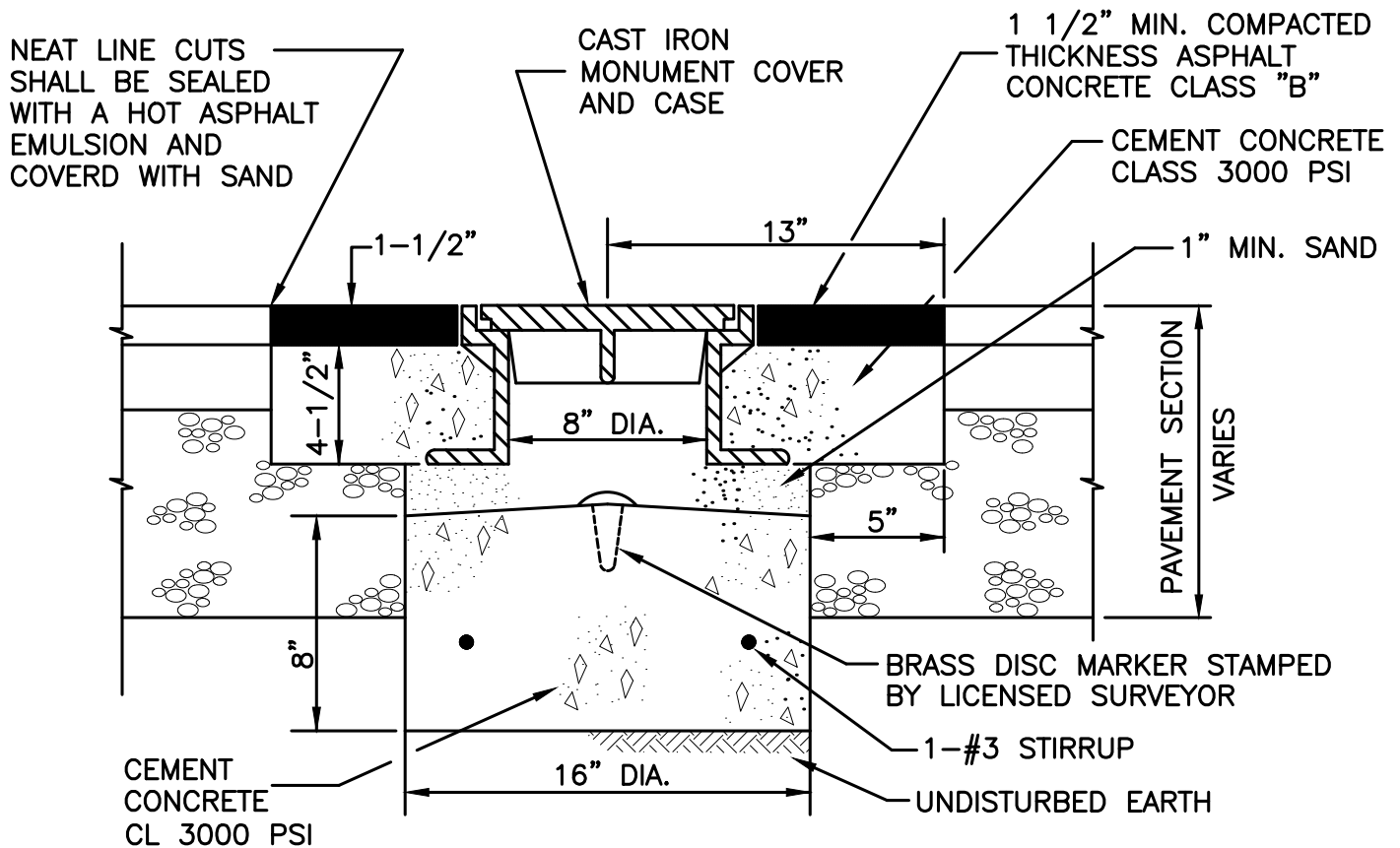
DATE

DWG. NO.

T-24E

**NOTES:**

1. MACHINE BEARING FACES OF COVER AND CASE TO INSURE POSITIVE FIT.
2. MATERIAL SHALL CONFORM TO THE CURRENT EDITION OF STANDARD SPECIFICATIONS.
3. SEE 4.31A(3) FOR REQUIRED LOCATIONS.

MONUMENT COVER**POURED-IN-PLACE MONUMENT**

CITY OF NORTH BEND

POURED-IN-PLACE MONUMENT

APPROVED:

MARK RIGOS, P.E.

BY CITY

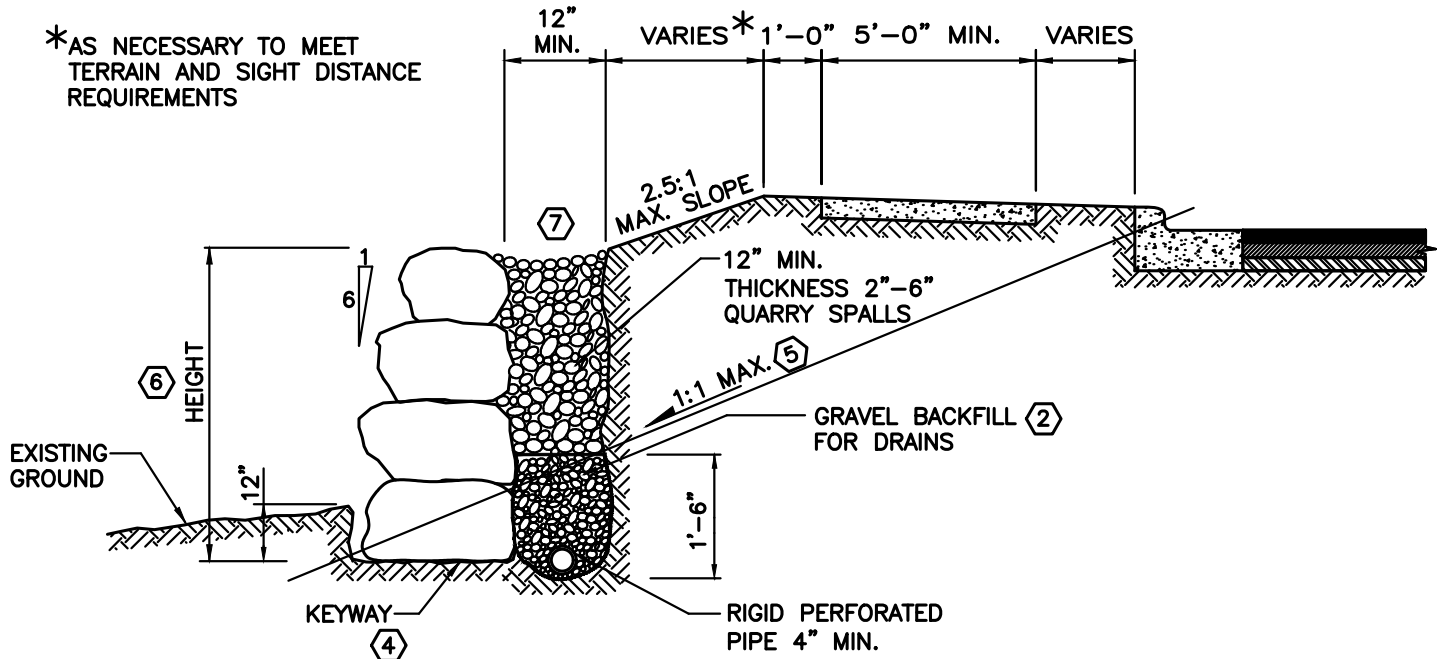
MAY 2018

DATE

DWG. NO.

T-25

*AS NECESSARY TO MEET
TERRAIN AND SIGHT DISTANCE
REQUIREMENTS



NOTES:

- ① SEE SECTION 4.31.
- ② WSDOT/APWA 9-03.12(4)
- ③ FENCE OR HANDRAIL MAY BE REQUIRED WHEN ROCKERY HEIGHT EXCEEDS 30 INCHES AND IS LOCATED IN A PUBLIC AREA.
- ④ THE WALL FOUNDATION IS TO BE CLEARED OF ORGANIC MATTER AND DEBRIS AND THE UNDERLYING MINERAL SOIL COMPACTED TO 95 PERCENT OF THE MAX. DRY DENSITY.
- ⑤ ZONE OF INFLUENCE. FLATTER SLOPE MAY BE REQUIRED IN LESS STABLE SOILS. ALL DRIVEWAYS, PARKING AREAS, AND ROADS SHALL LIE BELOW THE ZONE OF INFLUENCE.
- ⑥ HEIGHT FOR BUILDING PERMIT PURPOSES. MAXIMUM HEIGHT, AS MEASURED FROM THE KEYWAY, IS EIGHT (8) FEET. ALL WALLS FOUR FEET OR HIGHER SHALL REQUIRE A BUILDING PERMIT. ALL WALLS SUPPORTING A SURCHARGE (DRIVEWAY, ROAD, BUILDING, OR PARKING AREA) SHALL REQUIRE DESIGN BY A LICENSED ENGINEER.
- ⑦ THE TOP OF ALL ROCK WALLS SHALL BE CONFIGURED TO PREVENT SURFACE DRAINAGE OVER THE TOP OF THE WALL.



CITY OF NORTH BEND

ROCK WALL - CUT SECTION

APPROVED:

MARK RIGOS, P.E.

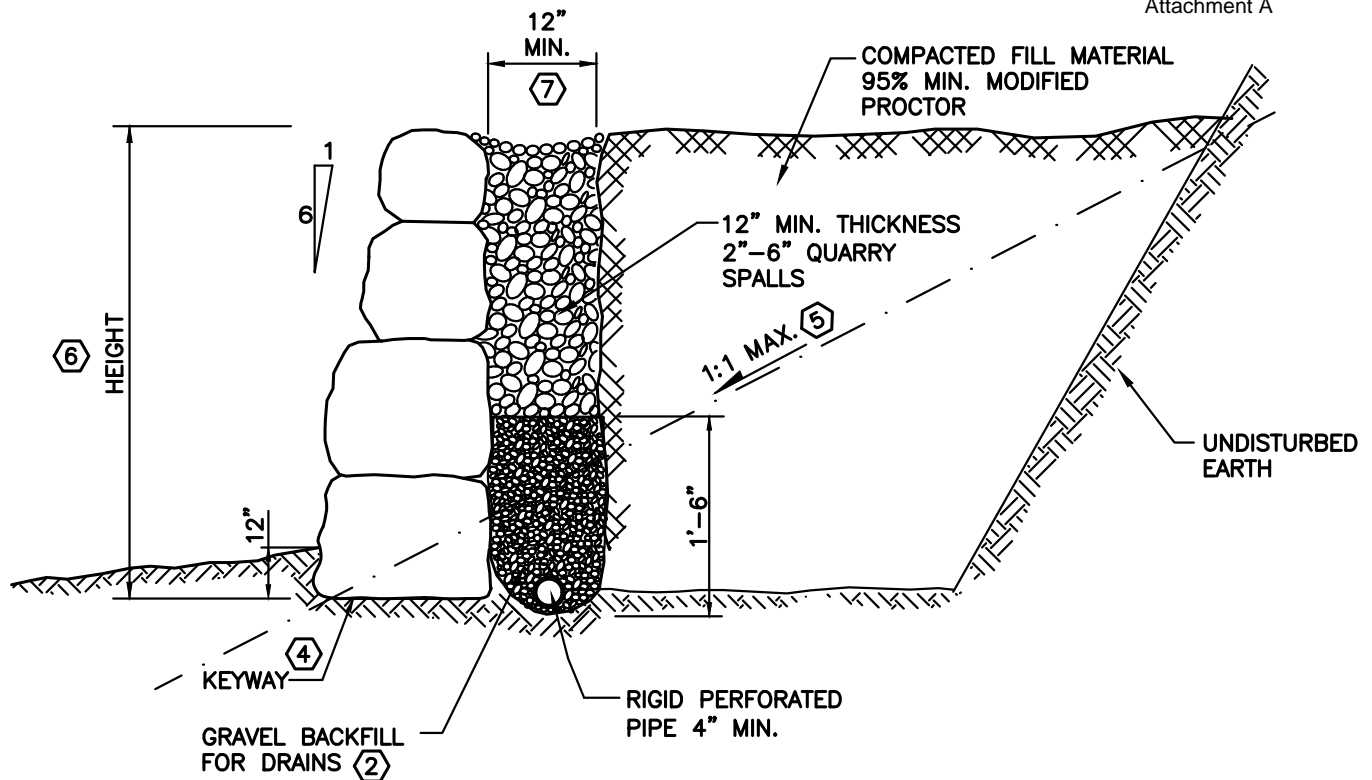
BY CITY

MAY 2018

DATE _____

DWG. NO.

T-26

**NOTES:**

- ① SEE SECTION 4.31.
- ② WSDOT/APWA 9-03.12(4)
- ③ FENCE OR HANDRAIL MAY BE REQUIRED WHEN ROCKERY HEIGHT EXCEEDS 30 INCHES AND IS LOCATED IN A PUBLIC AREA.
- ④ THE WALL FOUNDATION IS TO BE CLEARED OF ORGANIC MATTER AND DEBRIS AND THE UNDERLYING MINERAL SOIL COMPACTED TO 95 PERCENT OF THE MAX. DRY DENSITY. THE EMBANKMENT MATERIAL IS TO BE GRAVEL BORROW MEETING THE REQUIREMENTS OF 9-03.14 OF THE WSDOT STANDARDS. THE BACKFILL IS TO BE PLACED IN THIN LIFTS, NOT EXCEEDING SIX INCHES IN THICKNESS AND COMPACTED TO 95 PERCENT OF THE MAX. DRY DENSITY.
- ⑤ ZONE OF INFLUENCE. FLATTER SLOPE MAY BE REQUIRED IN LESS STABLE SOILS. ALL DRIVEWAYS, PARKING AREAS, AND ROADS SHALL LIE BELOW THE ZONE OF INFLUENCE.
- ⑥ HEIGHT FOR BUILDING PERMIT PURPOSES. MAXIMUM HEIGHT, AS MEASURED FROM THE KEYWAY, IS EIGHT (8) FEET. ALL WALLS FOUR FEET OR HIGHER SHALL REQUIRE A BUILDING PERMIT. ALL WALLS SUPPORTING A SURCHARGE (DRIVEWAY, ROAD, BUILDING, OR PARKING AREA) SHALL REQUIRE DESIGN BY A LICENSED ENGINEER.
- ⑦ THE TOP OF ALL ROCK WALLS SHALL BE CONFIGURED TO PREVENT SURFACE DRAINAGE OVER THE TOP OF THE WALL.
- ⑧ OVERBURDEN SHALL EXTEND BEYOND THE CUT FACE AT LEAST THE HEIGHT OF THE WALL.



CITY OF NORTH BEND

ROCK WALL – FILL SECTION

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

T-27



CITY OF NORTH BEND

RESERVED

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

T-28



CITY OF NORTH BEND

RESERVED

APPROVED:

MARK RIGOS, P.E.

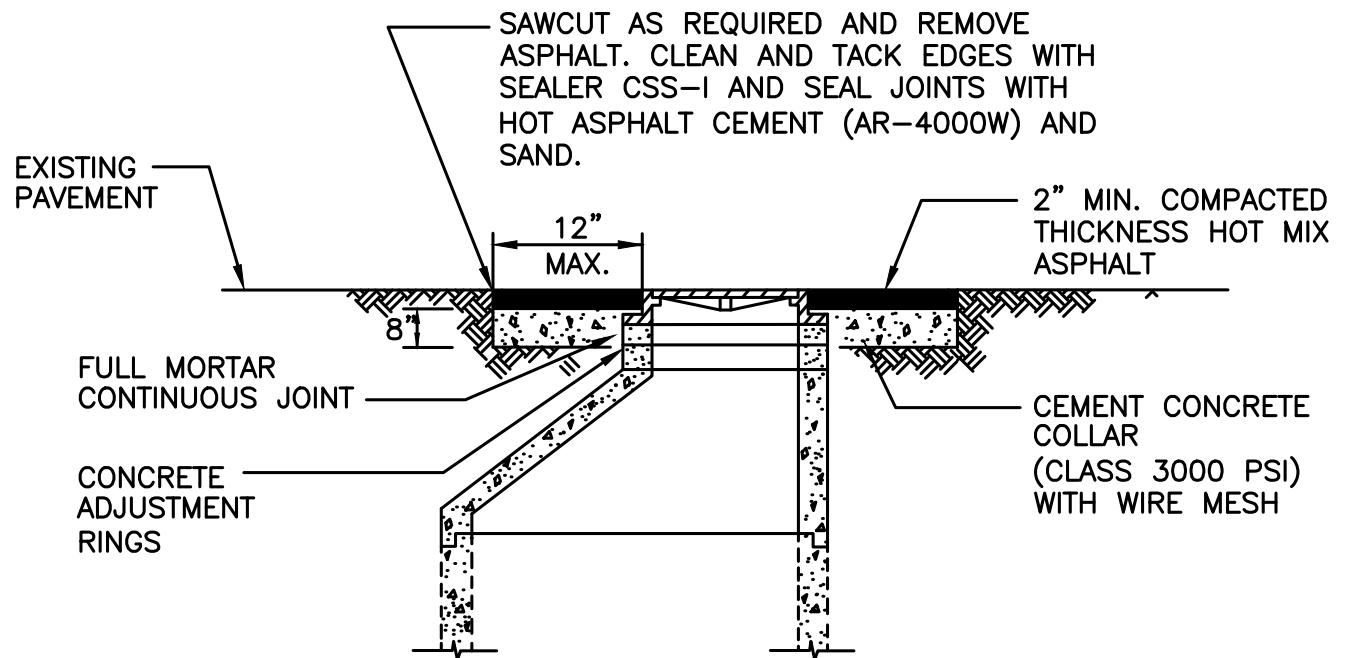
BY CITY

MAY 2018

DATE

DWG. NO.

T-29

NOTES:

1. HOT MIX ASPHALT SHALL BE HMA CLASS 1 1/2" PG 64-22.
2. ALL JOINTS SHALL BE SEALED WITH MATERIALS AND IN A MANNER TO PREVENT "TRACKING" OF SEALANT.



CITY OF NORTH BEND
MANHOLE OR CATCH BASIN
(TYPE II)
GRADE ADJUSTMENT DETAIL

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

T-30



CITY OF NORTH BEND

RESERVED

APPROVED:

MARK RIGOS, P.E.

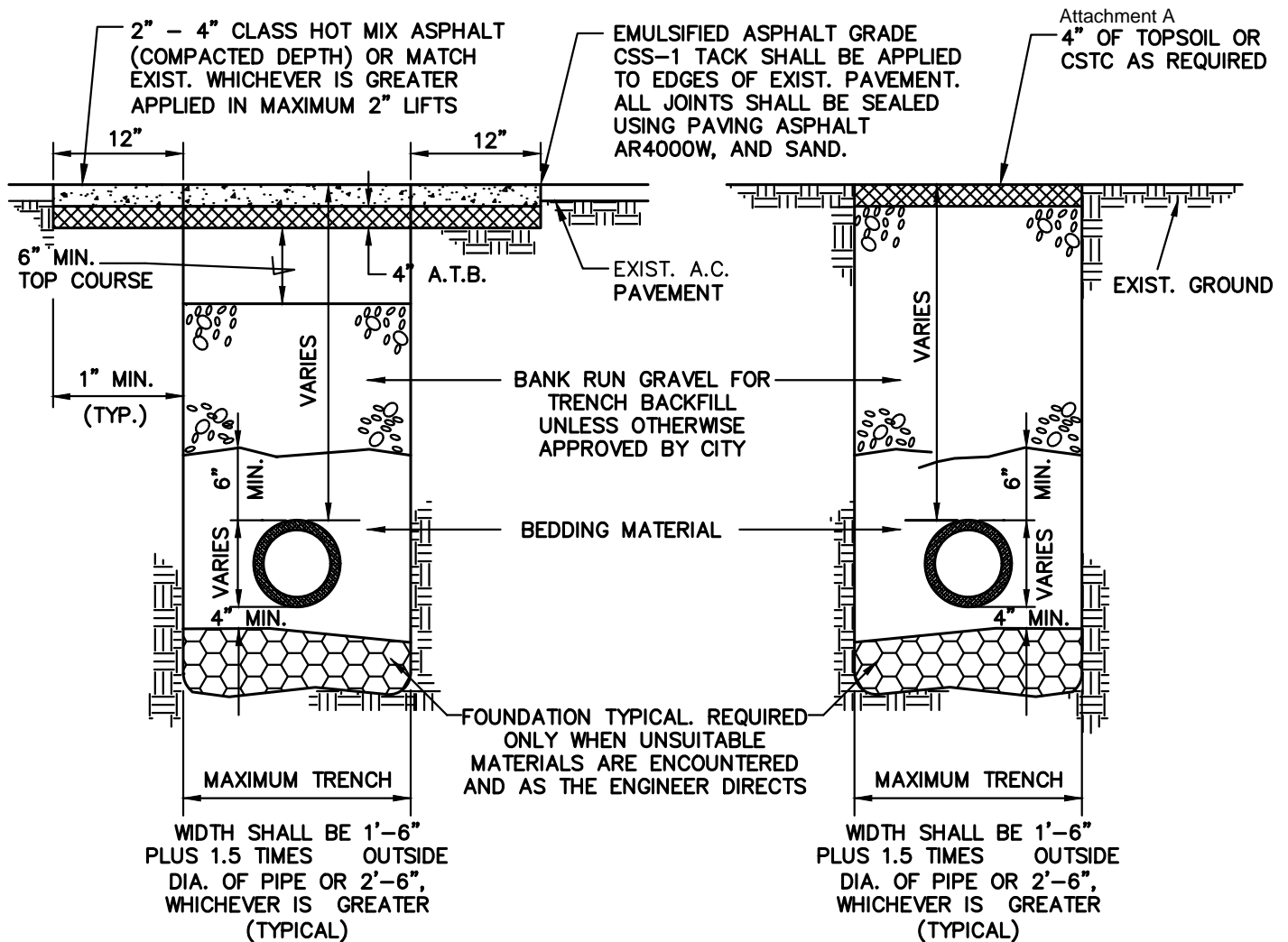
BY CITY

MAY 2018

DATE

DWG. NO.

T-31



NOTES:

- ALL MATERIALS EXCEPT HMA AND BEDDING MATERIAL SHALL BE COMPACTED IN 6-INCH MAXIMUM LIFTS TO 95% DENSITY.
- BEDDING SHALL CONFORM TO STANDARD SPECIFICATIONS.
- COMPACTION: BEDDING SHALL BE COMPACTED TO 95% MAX. AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE COMPACTED TO 85% IN UNPAVED AREA, AND 95% IN PAVED OR SHOULDER AREAS AS DETERMINED BY ASTM D1557.
- ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY STANDARDS.
- KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. A BELL JOINT SHALL BE REQUIRED AT EACH JOINT FOR PROPER SUPPORT. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.
- ALL EDGES SHALL BE NEAT-LINE SAWCUT.
- CLASS "B" ASPHALT SHALL BE HMA CLASS B PG 58-22



CITY OF NORTH BEND

TRENCH – PAVEMENT RESTORATION

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

T-32

SECTION 5 STORM DRAINAGE

Planning, Designing,
and Constructing



Drainage Systems
for Collection,
Conveyance,

Treatment, and
Discharge of Storm
Water Runoff...



SECTION 5 STORM DRAINAGE

5.01 General

All development projects shall evaluate the project's impact with respect to storm drainage and design and construct temporary measures and conduct best management practices (BMPs) necessary to prevent sediment-laden water from entering the drainage system during construction. Projects shall design and construct permanent conveyance, flow control, and water quality treatment facilities to mitigate for increased volume and rate of stormwater runoff and increased pollution in stormwater runoff from the project site. The analysis, design, implementation, and construction of necessary facilities shall be as required in NBMC 14.16 and the currently adopted King County Surface Water Design Manual ("surface water design manual"). Runoff computation and facility design shall utilize the King County Runoff Time Series (KCRTS) program.

The standards established by this chapter are intended to represent the **minimum** standards for the design and construction of storm drainage facilities and to supplement NBMC 14.16 and the surface water design manual. Greater or lesser requirements may be mandated by the City due to localized conditions. All storm drains and facilities shall be designed by a professional engineer licensed in the State of Washington.

If warranted based on the condition and capacity of the existing storm drainage infrastructure (or lack thereof) and impacts caused by the proposed development, off-site improvements may be required, at the Public Works Director's discretion, to mitigate impacts caused by the proposed development.

When working on existing drainage systems, including stream culverts, the bypass of incoming storm flows or stream flows shall be the responsibility of the party performing the work. Bypass shall be conducted with the least possible disturbance to traffic, adjacent properties, upstream and downstream drainage systems, and natural drainage systems.

Plugging and abandonment of existing pipes shall be in accordance with the Standard Specifications, however, storm drainage structures that are found or will no longer be used shall be removed and the resulting void filled with suitable compacted backfill material. Abandoned pipes shall be shown on as-built drawings.

5.02 Design Standards

All drainage facilities shall be designed and constructed in accordance with the surface water design manual. The following additional design considerations shall apply:

- A. Parking lots shall not be used for stormwater detention.
- B. Generally, storm drainage facilities located in public right-of-way or tracts dedicated to the City shall be publicly owned and maintained. The City may assume maintenance responsibility for some facilities located on private property under certain conditions. Otherwise facilities located on private property shall be privately owned and maintained with the City having right of entry for inspection. Privately owned and maintained facilities shall be constructed to the standards described herein. The owner of the facility shall be clearly defined, with documents recorded against the property's title.
- C. Privately maintained storm drainage facilities may be allowed within the public right-of-way only upon city approval. For instances where storm drainage facilities are located within the public right-of-way, and said facilities have specific landscaping requirements (i.e., bioretention,

bioswales, etc.), the facilities shall be maintained by the adjacent landowner, homeowners' association, or similar organization.

- D. The Standard Plan Notes, as contained in the appendices and further referenced herein shall be included on any plans submitted to the City for construction approval dealing with storm system design.
- E. The City has implemented supplemental requirements for the design and construction of stormwater facilities. All stormwater facilities constructed within the city shall be constructed in accordance with these requirements, which will provide a better functioning storm drainage system that provides safe, efficient, and maintainable facilities that are aesthetically pleasing and allow for potential expansion to provide protection of the environment. Therefore, the following shall be required for construction of new stormwater facilities:
 - (1) General
 - (a) All open stormwater facilities shall be landscaped as described in the surface water design manual, Title 18.18 NBMC, and as approved by the City.
 - (b) Stormwater facilities shall not be located where, in the City's opinion, the facility will create an attractive nuisance or be considered as unattractive from any public street, park, or venue.
 - (c) When preparing the Technical Information Report and construction drawings, the engineer shall make appropriate accommodation for conveyance and bypass of upstream off-site runoff AND discharge onto adjacent downstream properties. This will include provisions for easements to accommodate upstream properties and/or constructing a tight line system across downstream properties (in an appropriate easement) where a suitable natural or previously constructed tight line system does not exist.
 - (d) No storm drainpipe shall be buried deeper than 20 feet except that installation to a depth greater than 20 feet can be approved to avoid the need for a pump system. Manhole access to a pipe deeper than 20 feet shall include a minimum 60-inch-diameter manhole and a grated landing mid-way.
 - (e) Unless otherwise approved by the City, pipes shall not be located underneath sidewalks, driveways, walls, or landscaped areas except for where drainpipes cross perpendicular to these areas.
 - (f) Where frontage improvements are required by the city, the developer shall include them in the detention and treatment calculations and provide detention and treatment for those improvements.
 - (g) Unless otherwise approved by the city, pump systems will not be allowed for conveying storm runoff to a detention or treatment system.
 - (h) Depending upon the soils and moisture conditions, for steep pipe runs, trench dams may be required to prevent the flow of water along the trench. If required, the trench drains shall be connected into the structures to drain the trench, and prevent water from "piping" down the trench.

(2) Detention and Treatment Facilities

- (a) Underground vaults or tanks shall not be located underneath public roads.
- (b) Underground vaults or tanks shall not protrude above the ground surface in any location. Where site conditions warrant and the City approves a portion of a vault to extend above the ground surface, the area shall be screened with landscaping and the exposed portion shall be configured with a decorative facing approved by the City.
- (c) Underground vaults shall be equipped with a locking hatch as described in the KCSWDM, rather than a standard manhole cover.
- (d) Underground vaults and tanks shall be accommodated with easements or setbacks large enough to provide for the complete replacement (without encroaching on any other structures, utilities, or roads) of the structure, should replacement be required in the future.
- (e) Open vaults with exposed vertical side(s) shall be prohibited.

(3) New Technology

Regarding new and evolving technology for treating stormwater, only those self-contained treatment devices certified by the Department of Ecology with a General Use Level Designation (GULD) will be approved. If selected, the developer shall provide proof that the associated maintenance costs do not exceed 50 percent of the total revenue from the stormwater utility fees for that specific project.

(4) Biofiltration

- (a) Bioswales shall only be constructed where approved by the city. Specifically, bioswales shall not be constructed in areas that are shaded during the growing season or between single family residences or commercial buildings.
- (b) Bioswales shall not be constructed with vertical side(s).
- (c) Bioswales shall not be designed as wet swales. Bioswales shall not be designed with a longitudinal slope less than 1.5 percent.

(5) Pond Design Criteria

- (a) Bollards or a gate shall be installed approximately 25 feet from the edge of the traveled way in order to provide a safe parking area for maintenance personnel when accessing the pond.

(6) Easements and Dedications

- (a) For privately owned and/or operated storm drainage systems, the developer shall execute and record a Declaration of Covenant that identifies the property and the storm drainage system, allows access to the city to inspect and maintain, if

necessary, and identifies the private owner as the party responsible for operation and maintenance.

- (b) All easements shall be of sufficient width to allow complete replacement of the identified storm system component without encroaching into the foundation support of nearby buildings, walls, roads, steep slopes, driveways, utilities, sidewalks, or other structures.
- (c) All easements shall be provided in a form acceptable to the city and recorded at the King County assessor's office prior to allowing the construction of a building on the property, or prior to recording of a plat. For land subdivisions, the easements may be shown on the plat map so long as the plat map identifies the specific party to which the easement is granted (grantee), the restrictions for the grantee and grantor, and clearly identifies the dimensions of the easement(s).
- (d) No public storm drainage easement shall be less than 15 feet in width. Where the easement is provided to gain access to a structure (catch basin, manhole, inlets) the easement width shall not be less than 20 feet. Building setbacks shall be applied at the easement boundary. Private storm drain easements may be 10 feet in width.
- (e) Pipes and swales not located in the center of the easement shall have at least 7.5 feet (5.0 feet for private easements) of easement width from the pipe or swale to the edge of the easement.
- (f) Easements shall be located entirely on a single property and shall not be split along property lines.
- (g) Where easements are provided between properties to convey runoff from an upstream property to a downstream conveyance system within a single project (e.g., subdivision), the conveyance system shall be installed as a requirement of the plat recording or project final approval.

(7) Infiltration Design Criteria

- (a) The fluctuation of groundwater levels in the City is very dynamic, and therefore, determining the wet season high groundwater level can be difficult, depending upon the time of year that groundwater observations are made. In addition to typical soil explorations and infiltration testing, groundwater levels, for the design of infiltration facilities, shall be monitored during the wet season. The monitoring shall include at least 3 months during the period of November 1 through March 31. This information shall be made available prior to engineering plan approval.

F. The city encourages the use of low impact design for the purpose of reducing stormwater quantity and quality impacts. These LID techniques may include those items listed in NBMC 18.50.070, as summarized herein, and also the specific requirements for LID street design in Section 4.03:

- (1) Maximizing retention of native forest cover and restoring disturbed vegetation to intercept, evaporate, and transpire precipitation.
- (2) Preserve permeable, native soil and enhance disturbed soils to store and infiltrate storm

flows.

- (3) Retain and incorporate topographic features that slow, store, and infiltrate stormwater.
- (4) Retain and incorporate natural drainage features and patterns.
- (5) Locate buildings and roads away from critical areas and soils that provide effective infiltration.
- (6) Minimize total impervious area and limit effective impervious surfaces.
- (7) Manage stormwater as close to its origin as possible to utilize small scale, distributed hydrologic controls.
- (8) Create a hydrologically rough landscape that slows storm flows and increases the time of concentration. Increase the reliability of the stormwater management system by providing multiple or redundant points of control.
- (9) Integrate stormwater controls into the development design and utilize the controls as amenities; create a multifunctional landscape.

5.03 Conveyance

The minimum pipe size shall be 12-inches diameter and minimum pipe slope shall be 0.5 percent. Nothing shall preclude the City from requiring the installation of a larger sized main if the City determines a larger size is needed to serve adjacent areas or for future service.

All pipe for storm mains shall be “preapproved” by the director based on localized conditions and comply with the WSDOT Standard Specifications Section 7-04. For conventional construction, storm pipe shall be lined corrugated polyethylene, solid wall PVC, or ductile iron, unless otherwise approved by the director. For above-ground steep slope pipe systems, the pipe material shall be butt fuse-welded high density polyethylene (HDPE), with energy-dissipation tee at the bottom of the slope, prior to discharge.

Where storm drain pipes run outside the public right-of-way, permanent easements shall be recorded for public or private maintenance as may be required and warranted. A construction (temporary) easement of suitable width shall also be provided prior to start of construction.

Maximum catch basin spacing shall be 200 feet on road grades up to 3 percent, 300 feet when the road grade is 3 percent or greater, with a 400-foot maximum spacing on main storm drains between access structures, whether catch basins or manholes. No surface water shall cross any roadway, unless approved by the City. In addition, catch basins shall be placed whenever the length of surface drainage exceeds 300 feet, extending either direction from crest or sag vertical curves.

Through-curb inlets shall be provided in all low spots, where possible. Otherwise, a combination of two inlets and one catch basin may be used in low spots in lieu of a through-curb inlet. Vaned grates shall be installed on all catch basins located within the street, gutter, or shoulder. Herringbone grates may be used in high pedestrian areas, including parking lots and crosswalks. Catch basin grates shall be non-locking when located within the public right-of-way, and locking when located outside the public right-of-way. Catch basins or manholes that do not collect runoff, and also control structures, shall use solid locking covers.

5.04 Manholes, Catch Basins, and Connections

All manholes and catch basins shall be constructed from precast concrete bases and risers. Cast-in-place concrete bases shall only be used for “straddle” of existing systems and shall be watertight.

In areas of new and existing pavement, the grate rim elevation shall be set to promote drainage flow. In unimproved areas, the rim elevations shall be set 2-inches above finished grade unless otherwise shown on the Plans.

Connection of new storm drain pipe into an existing main storm drain shall be made only with a new structure. Where piping is to be connected to existing structures, the opening(s) shall be core-drilled in the structure. The use of jackhammers and/or sledgehammers to knock out the hole shall not be allowed.

Where pipes of dissimilar materials are connected, a coupling device specifically manufactured for that purpose shall be used. Where pipe of differing sizes are installed at a structure, the crown of laterals and smaller mains shall match the crown of the larger, exiting main.

Unless otherwise approved, drain pipe shall be connected to manholes and Type 2 catch basins as follows:

<u>Pipe Type</u>	<u>Connection System</u>
DI	Kor-N-Seal*
HDPE	Kor-N-Seal*
<u>Pipe Type</u>	<u>Connection System</u>
PVC	Kor-N-Seal*
Corrugated Polyethylene	Per Manufacturer’s Recommendation
*Or City approved equal.	

If the angle of a storm drain pipe entering a Type 1 or Type 1-L catch basin is such that the standard knockout must be enlarged by hammering and removing portions of the basin wall, then a larger structure shall be used. Spacing between pipes entering the same structure shall be in accordance with the manufacturer’s recommendations.

5.05 Trench Excavation

Installation of storm drains shall per performed in accordance with WSDOT Section 7-08 of the Standard Specifications. This is supplemented by the following:

- A. Clearing and grubbing where required shall be performed within the easement or public right-of-way as permitted by the City and/or governing agencies. Debris resulting from the clearing and grubbing shall be disposed of in accordance with the terms of all applicable permits.
- B. The trench shall be kept free from water until joining is complete. Surface water shall be diverted so as not to enter the trench. The Contractor shall maintain sufficient pumping equipment on the job to insure that these provisions are carried out. Disposal of the water shall be in such a manner as not to cause a nuisance or menace to the public. The dewatering system shall be installed and operated so that the groundwater level outside the excavation is not reduced to the extent that would damage or endanger adjacent structures or property
- C. The contractor shall perform all excavation of every description and whatever substance encountered and boulders, rocks, roots and other obstructions shall be entirely removed or cut out to the width of the trench and to a depth 6 inches below storm line grade. Where materials are

removed from below the pipeline grade, the trench shall be backfilled to grade with material satisfactory to the City and thoroughly compacted.

- D. Trenching and shoring operations shall not proceed more than 100 feet in advance of pipe laying without specific written approval of the City, and shall be in conformance with Washington Industrial Safety and Health Administration (WISHA) and Office of Safety and Health Administration (OSHA) Safety Standard.
- E. The bedding course shall be finished to grade with hand tools in such a manner that the pipe will have bearing along the entire length of the barrel. The bell holes shall be excavated with hand tools to sufficient size to facilitate the construction of pipe joints.

5.06 Bedding

Generally, bedding for storm sewer pipes shall be “pea gravel” meeting the specifications for a relatively round, processed, washed rock with:

100% passing the 3/8-inch screen
0% passing the #4 screen

If necessary on steep pipe runs, the pipe trench shall be constructed with trench dams of clay or CDF to prevent the migration of water through the pea gravel. Water collected in the trench shall be piped to a suitable discharge location.

For convenience, crushed rock bedding conforming to Section 9-03.9(3) Crushed Surfacing Top Course of the Standard Specification may also be used as bedding material for pipe. Native Material shall not be used for bedding, unless approved by the director.

Selected bedding material shall be placed and compacted around and under the storm drain by hand tools. Special precautions should be provided to protect the pipe to a point 12 inches above the crown of the pipe.

5.07 Backfilling

Backfilling and surface restoration shall closely follow installation of pipe so that not more than 100 lineal feet of trench is left exposed during construction hours. Above the pipe bedding, the remaining backfill shall be compacted to 95 percent of the maximum density in traveled areas, 90 percent outside driveway, roadways, shoulders, parking, or other traveled areas.

Typically, trench sections crossing existing roadways, or beneath traffic bearing areas shall be backfilled and compacted with Crushed Surfacing Base Course per Section 9-03.9(3) of the Standard Specifications. Due to localized conditions, the City may allow/permit the backfill of the trench section with suitable excavated material, as determined by the City, or if this material is not available from trenching operations, the City may order the placing and compaction of Gravel Borrow per Section 9-03.14(1) of the Standard Specifications (WSDOT) for backfilling the trench. All excess material shall be loaded and hauled to waste.

The top 4 feet of longitudinal trenches in paved areas shall be backfilled with Crushed Surfacing Base Course per Section 9-03.9(3) of the Standard Specifications.

5.08 Testing

Materials testing, trench backfill compaction testing, and low-pressure air tests shall be required for storm drainage systems.

5.09 Street Patching and Restoration

See Section 4 for requirements regarding street patching and trench restoration.

5.10 Adjustment of New and Existing Utility Structures to Grade

This work consists of constructing and/or adjusting all new and existing utility structures encountered on the project to finished grade. All utility castings and monuments within the existing and/or new pavement area shall be referenced by the Contractor prior to any pavement removal or planing. The Contractor shall keep a record of such references, and submit a copy to the City.

Existing structures and new structures shall be adjusted to the finished grade as shown on the Details and as further specified herein. Existing boxes, rings, grates, covers, and lids shall be reset in a careful and workmanlike manner to conform to the required grades.

The new and existing utility castings and monuments shall be adjusted to grade in the following manner:

As soon as the street has been paved past each structure or casting, the asphalt concrete mat shall be scored around the location of the structure or casting. After rolling has been completed and the mat has cooled, it shall be cut along the scored lines. The structure or casting shall then be raised to finished pavement grade and the annular spaces filled. The pavement shall be installed to give a smooth finished appearance. All covers, lids, frames, and grates shall be thoroughly cleaned.

After pavement is in place, all new pavement joints shall be sealed with a 6-inch-wide strip of hot asphalt sealer. A sand blanket shall be applied to the surface of the hot asphalt sealer immediately after the placement of the sealer to help alleviate the tracking of the asphalt. The sealer shall meet the requirements of Section 9-04.2(1) of the Standard Specifications.

5.11 Finishing and Cleanup

After all other work on the project is completed and before final acceptance, the entire roadway, including the roadbed, planting, sidewalk areas, shoulders, driveways, alley, and side street approaches, slopes, ditches, utility trenches, and construction areas shall be neatly finished to the lines, grades and cross sections of a new roadway consistent with the original section, and as hereinafter specified.

Slopes, sidewalk areas, planting areas and roadway shall be smoothed and finished to the required cross section and grade by means of a grading machine insofar as it is possible to do so without damaging existing improvements, trees and shrubs. Machine dressing shall be supplemented by hand work to meet requirements outlined herein, to the satisfaction of the director.

All excavated material at the outer lateral limits of the project shall be removed entirely. Trash of all kinds resulting from clearing and grubbing or grading operations shall be removed and not placed in areas adjacent to the project. Where machine operations have broken down brush and trees beyond the lateral limits of the project, the Developer shall remove and dispose of same and restore said disturbed areas at his own expense.

Drainage facilities such as inlets, catch basins, culverts, and open ditches shall be cleaned of all debris which is the result of the Developer operations.

All pavements, whether new or old, shall be thoroughly cleaned. Existing improvements such as Portland cement concrete curbs, curb and gutters, walls, sidewalks, and other facilities which have been sprayed by the asphalt cement shall be cleaned to the satisfaction of the director.

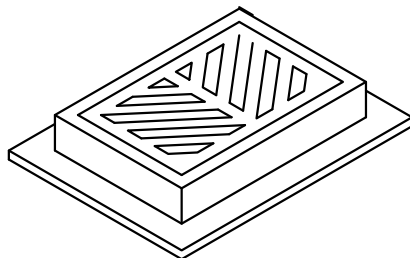
Upon completion of the cleaning and dressing, the project shall appear uniform in all respects. All graded areas shall be true to line and grade. Where the existing surface is below sidewalk and curb, the area shall be filled and dressed out to the walk. Wherever fill material is required in the planting area, the finished grade shall be elevated to allow for final settlement, but nevertheless, the raised surface shall present a uniform appearance.

APPENDIX 5-1

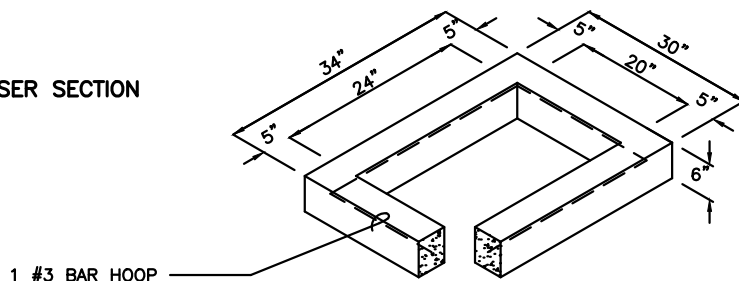
STORM DRAINAGE STANDARD DETAILS

CATCH BASIN – TYPE 1	SD-1
CATCH BASIN – TYPE IL	SD-2
CATCH BASIN – TYPE 2 48", 54", 60", 72" AND 96"	SD-3
SOLID STORM DRAIN COVER	SD-4
PARKING LOT AREA GRATE	SD-5
STANDARD FRAME INSTALLATION	SD-6
VANED GRATE	SD-7
THROUGH CURB INLET FRAME & GRATE WITH VERTICAL CURB.....	SD-8
THROUGH CURB INLET FRAME	SD-9
CLEANOUT TO GRADE.....	SD-10
STORM SEWER STUB.....	SD-11
CASING INSTALLATION.....	SD-12
BEEHIVE GRATE.....	SD-13
PIPE BEDDING DETAIL	SD-14
TRASH RACK DEBRIS BARRIER	SD-15
DEBRIS CAGE.....	SD-16
BEVELED END PIPE SECTION	SD-17
FLOW RESTRICTOR - TEE TYPE.....	SD-18
TEE SECTION SHEAR GATE DETAIL	SD-19
24" LOCKING MANHOLE COVER	SD-20
24" LOCKING MANHOLE FRAME.....	SD-21
TYPE 45 AREA DRAIN.....	SD-22
STEEL BOLLARD POST.....	SD-23A
STEEL BOLLARD DETAILS	SD-23B

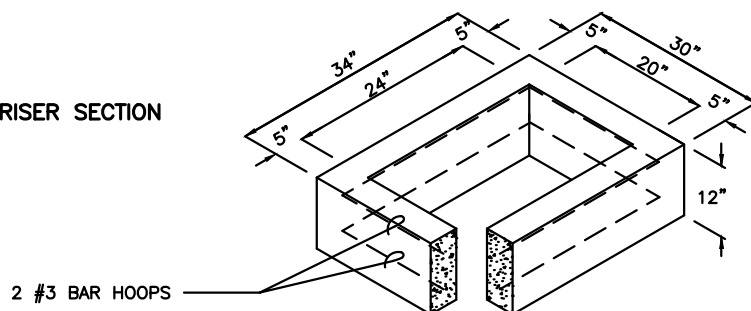
FRAME AND GRATE SEE
WSDOT SEC. 7.05 AND
APPLICABLE DWGS.



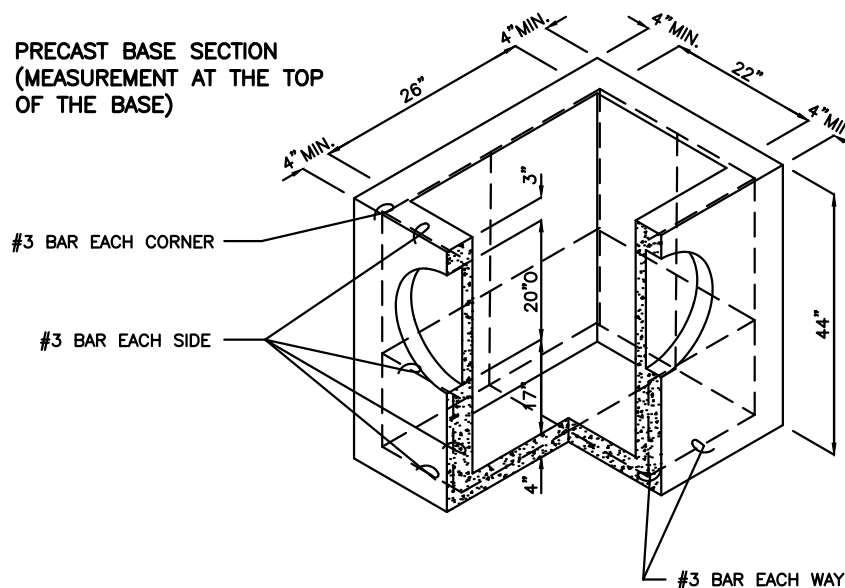
6" RISER SECTION



12" RISER SECTION



PRECAST BASE SECTION
(MEASUREMENT AT THE TOP
OF THE BASE)



NOTES:

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX. DIAM. OF 20". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.
9. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-62ID. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
11. FOR CATCH BASINS IN PARKING LOTS REFER TO WSDOT/APWA STANDARD DWG. B-5.60-02.
12. EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.



CITY OF NORTH BEND

CATCH BASIN - TYPE 1

APPROVED:

MARK RIGOS, P.E.

BY CITY

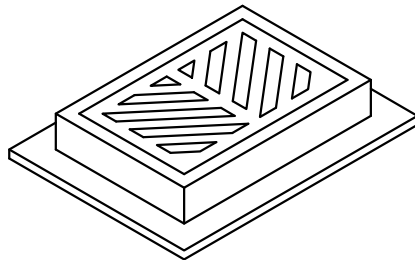
MAY 2018

DATE

DWG. NO.

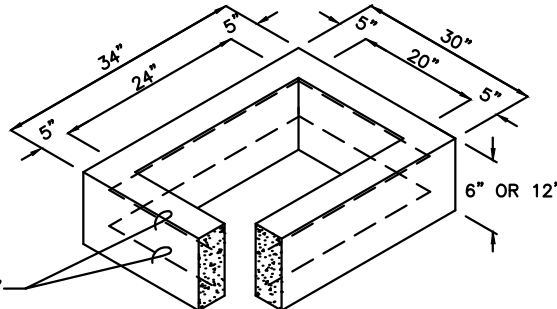
SD-1

FRAME AND GRATE
SEE WSDOT
SEC. 7.05 AND
APPLICABLE DWGS.



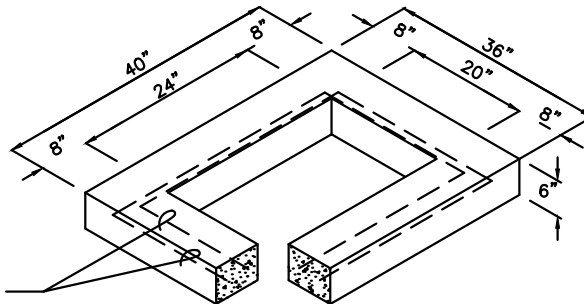
RISER SECTION

- 1 #3 BAR HOOP FOR 6"
- 2 #3 BAR HOOP FOR 12"



6" REDUCING SECTION

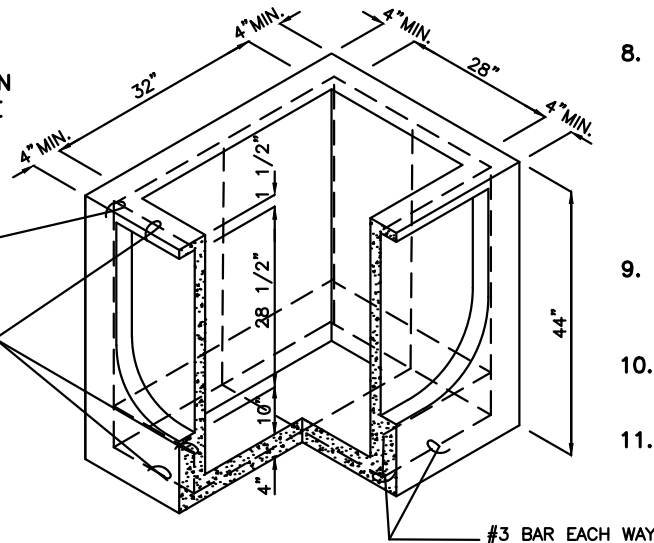
- 2 #3 BAR HOOP



PRECAST BASE SECTION (MEASUREMENT AT THE TOP OF THE BASE)

- #3 BAR EACH CORNER

- #3 BAR EACH SIDE



NOTES:

Attachment A

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. KNOCKOUTS MAY BE ON ALL 4 SIDES WITH MAX. DIAM. OF 28". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.
8. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-62ID. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
9. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
10. MAX. DEPTH FROM FINISHED GRADE TO PIPE INVERT SHALL BE 5'-0".
11. EDGE OF REDUCING SECTION OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.



CITY OF NORTH BEND

CATCH BASIN - TYPE 1L

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

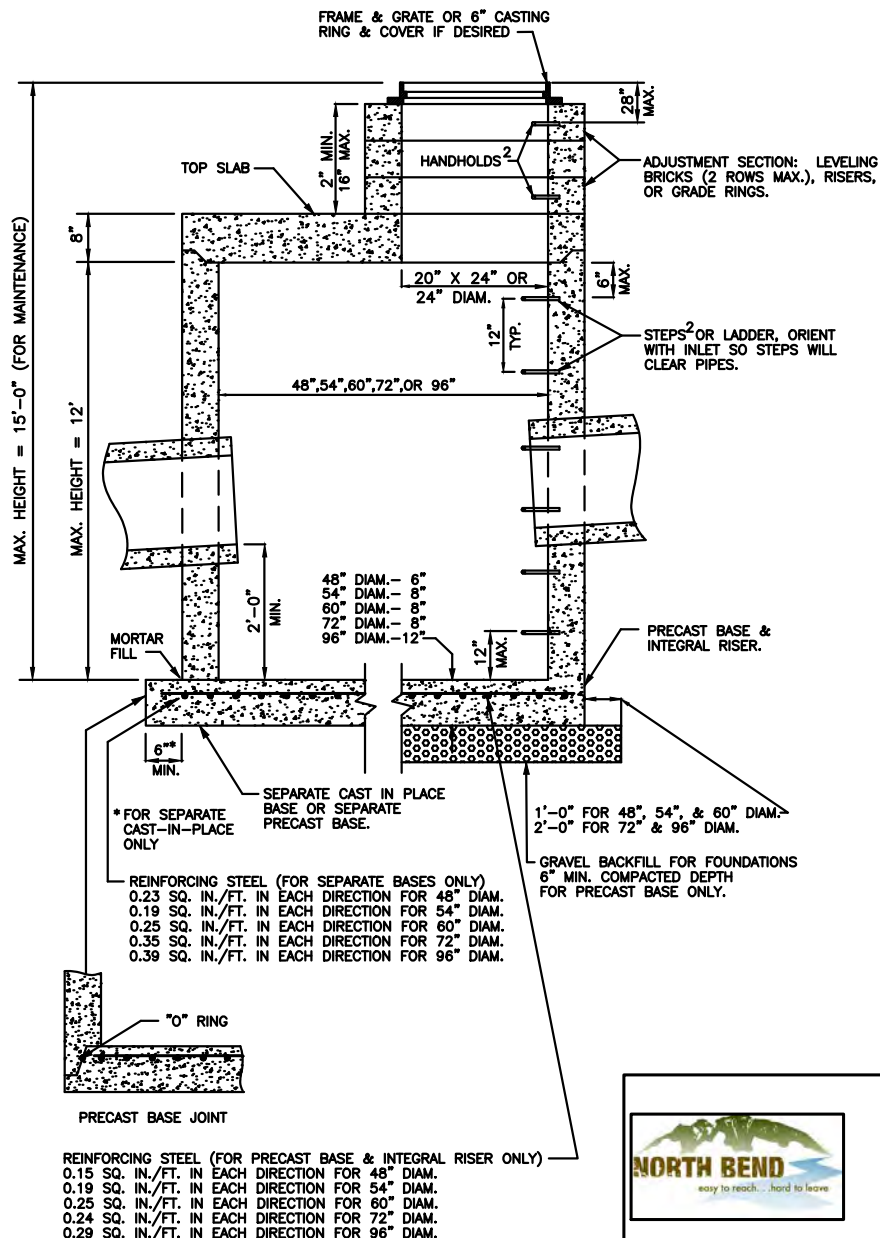
DATE

DWG. NO.

SD-2

NOTES:

- CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M199) AND ASTM C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
- HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN CATCH BASIN SHALL HAVE 6" MIN. CLEARANCE. HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MIN. OF ONE HANDHOLD BETWEEN THE LAST STEP AND FINISHED GRADE. ALL STEPS AND HANDHOLDS SHALL BE MADE OF POLY PROPYLENE.
- ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
- PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2" MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS. MAX. HOLE SIZE SHALL BE 36" FOR 48" CATCH BASIN, 42" FOR 54" C.B., 48" FOR 60" C.B., 60" FOR 72" C.B., 84" FOR 96" C.B. MIN. DISTANCE BETWEEN HOLES SHALL BE 8" FOR 48", 54", AND 60" C.B.; 12" FOR 72" AND 96" C.B.
- CATCH BASIN FRAMES AND GRATES OR COVERS SHALL BE IN ACCORDANCE WITH SEC. 7.05 OF THE WSDOT STANDARD SPECIFICATIONS. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
- ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MIN. CLEARANCE.
- MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT.
- FOR DETAILS SHOWING LADDER, STEPS, HANDRAILS AND TOP SLABS, SEE OTHER STANDARD DETAILS.
- SEE THE WSDOT STANDARD SPECIFICATIONS SEC. 7-05.3 FOR JOINT REQUIREMENTS.



CITY OF NORTH BEND

CATCH BASIN - TYPE 2
48", 54", 60", 72", & 96"

APPROVED:

MARK RIGOS, P.E.

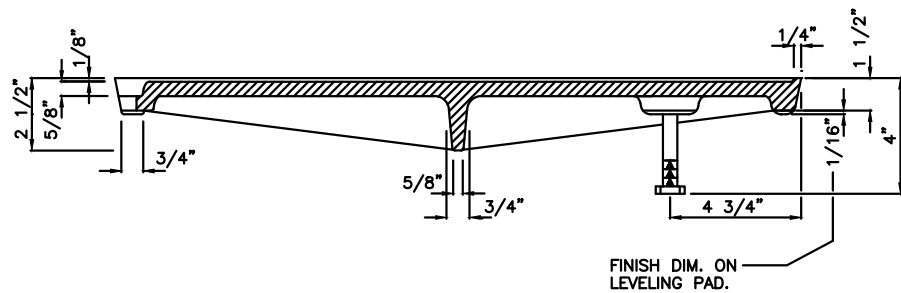
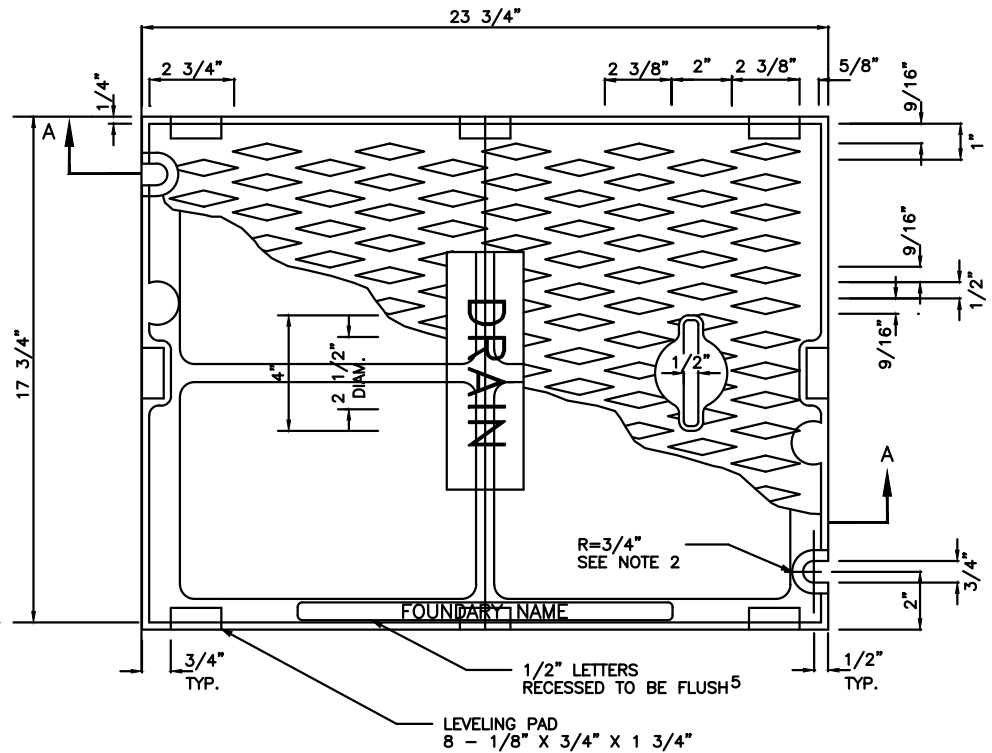
BY CITY

MAY 2018

DATE

DWG. NO.

SD-3



NOTES:

1. USE WITH FRAME DRILLED AND TAPPED FOR LOCKING BOLTS.
2. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS STEEL TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) BOLTS, 2" LONG.
3. COVER MATERIAL IS CAST IRON PER ASTM A48 CLASS 30.
4. SHALL CONFORM TO SEC. 7.05 OF THE WSDOT STANDARD SPECIFICATIONS.
5. COVER SHALL HAVE THE WORD "DRAIN" IN 2-INCH RAISED LETTERS.
6. ALL LIDS TO BE LOCKING UNLESS OTHERWISE SPECIFIED IN PLANS.



CITY OF NORTH BEND

SOLID STORM DRAIN COVER

APPROVED:

MARK RIGOS, P.E.

BY CITY

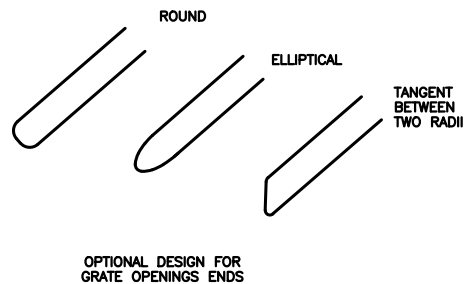
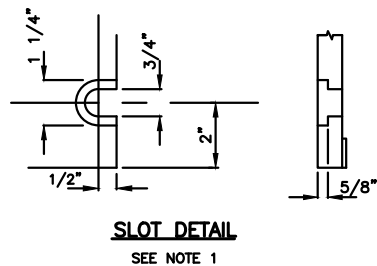
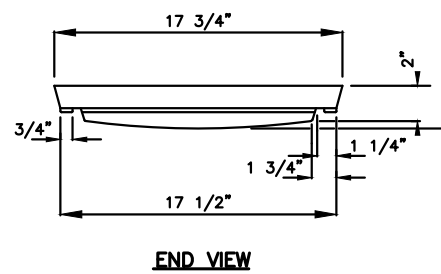
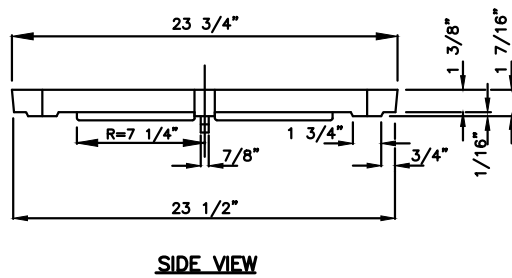
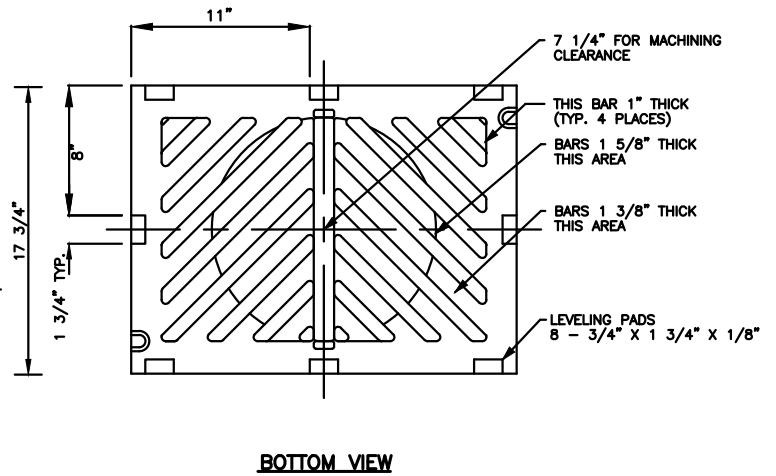
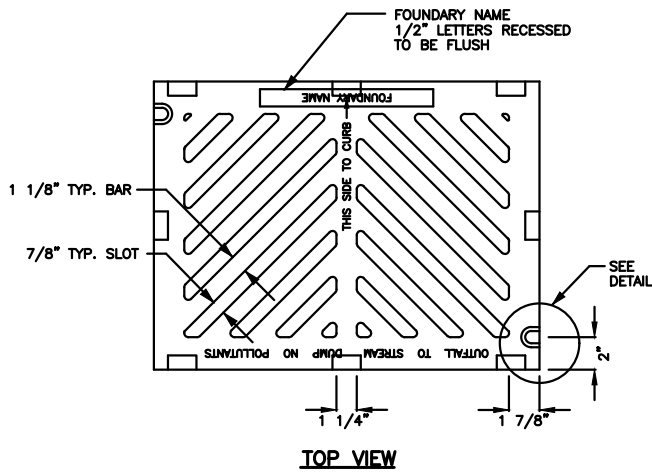
MAY 2018

DATE _____

DWG. NO.

SD-4

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NOTES:

1. SLOT FORMED AND RECESSED FOR 5/8"-11 NC X 2" SOCKET HEAD (ALLEN HEAD) BOLT.
2. GRATE SHALL BE DUCTILE IRON.
3. SHALL CONFORM TO SEC. 9-05.15 OF THE WSDOT STANDARD SPECIFICATIONS.
4. USE VANED GRATE IN CURB LINE.
5. USE FRAME SHOWN IN STANDARD DETAIL SD-6.
6. ALL LIDS TO BE LOCKING UNLESS OTHERWISE SPECIFIED IN PLANS.



CITY OF NORTH BEND

PARKING LOT AREA GRATE

APPROVED:

MARK RIGOS, P.E.

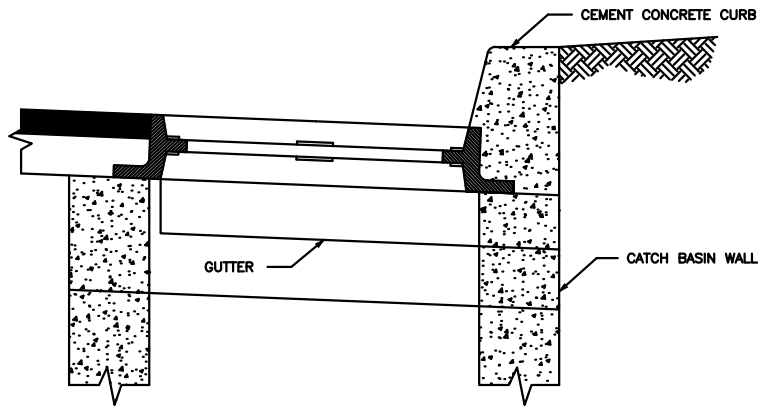
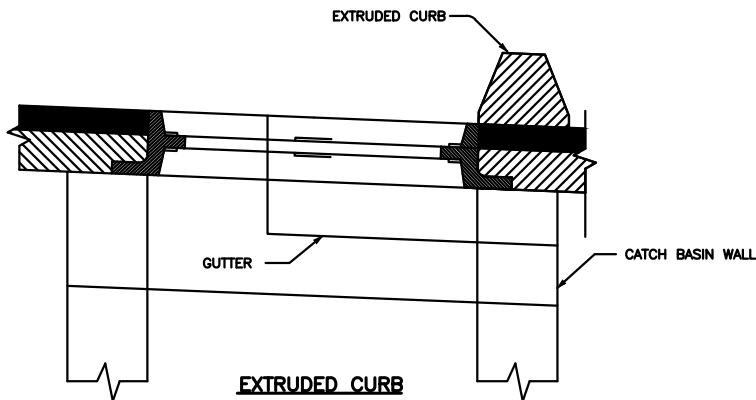
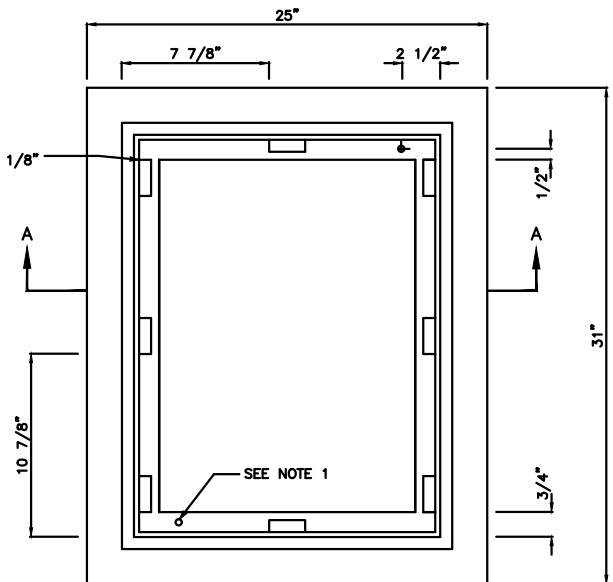
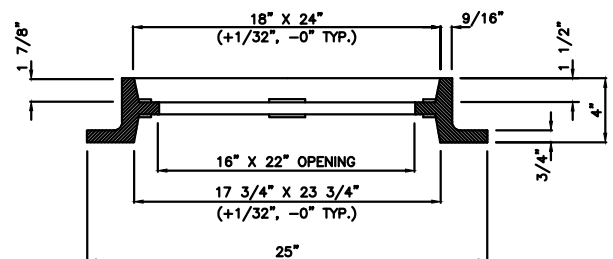
BY CITY

MAY 2018

DATE

DWG. NO.

SD-5

**VERTICAL CURB**LEVEL PAD 16 - $3/4" \times 2 1/4" \times 1/8"$ **EXTRUDED CURB****PLAN****SECTION A-A****NOTES:**

1. DRILL AND TAP FOR, AND PROVIDE, TWO LOCKING BOLTS $5/8"$ -11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) BOLTS, 2" LONG, WHERE REQUIRED.
2. FRAME MATERIAL IS CAST IRON PER ASTM A48 CLASS 30 OR BETTER.
3. SET FRAME TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.
4. ALL LIDS TO BE LOCKING UNLESS OTHERWISE SPECIFIED IN PLANS.



CITY OF NORTH BEND

STANDARD FRAME INSTALLATION

APPROVED:

MARK RIGOS, P.E.

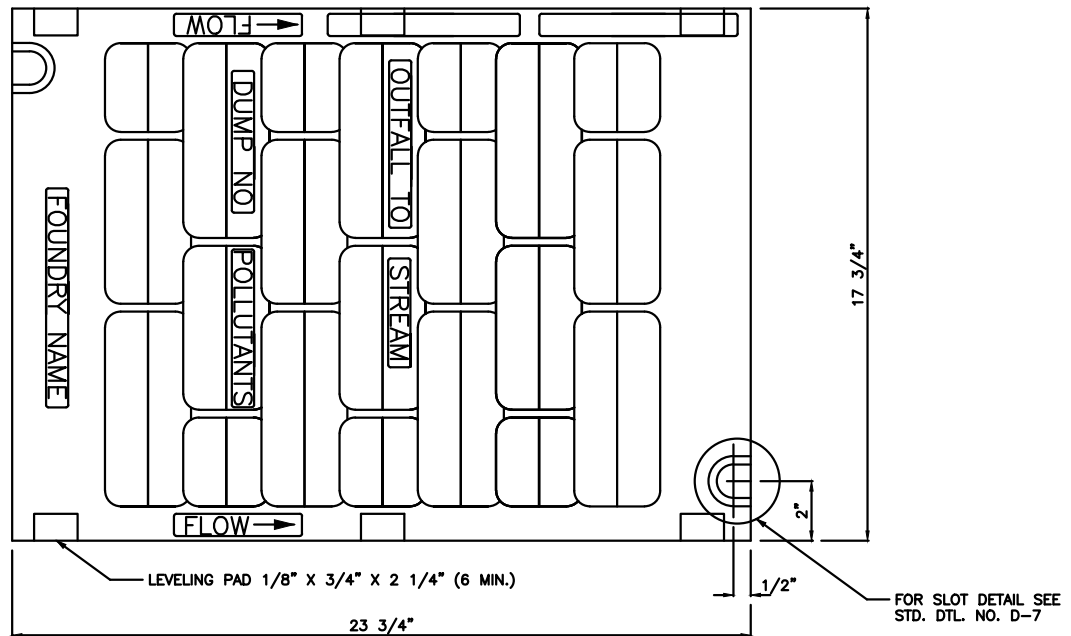
BY CITY

MAY 2018

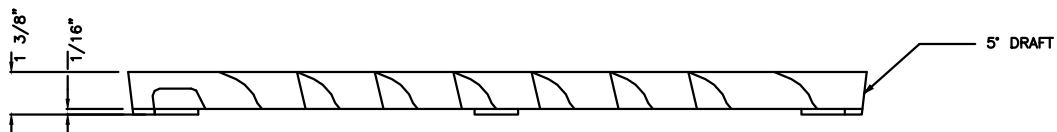
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DWG. NO.

SD-6



PLAN



ELEVATION

NOTES:

1. SELF-LOCK VANED GRATE MANUFACTURER SUBJECT TO APPROVAL BY ENGINEER.
2. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) BOLTS, 2" LONG. NOTE SLOT DETAIL. PROVIDE WHERE REQUIRED.
3. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
4. "OUTFALL TO STREAM DUMP NO POLLUTANTS" IN RAISED LETTERS SHALL BE LOCATED ON GRATE AS SHOWN, OR ON BORDER AREA.
5. SHALL CONFORM TO SEC. 7.05 OF THE WSDOT STANDARD SPECIFICATIONS.
6. WELDING IS NOT PERMITTED.
7. EDGES SHALL HAVE 0.125" RADIUS, 0.125" CHAMBER OR COMPLETE DEBURRING.
8. USE A BI-DIRECTIONAL VANED GRATE IN SAG VERTICAL CURVES.
9. ALL LIDS TO BE LOCKING UNLESS OTHERWISE SPECIFIED IN PLANS.



CITY OF NORTH BEND

VANED GRATE

APPROVED:

MARK RIGOS, P.E.

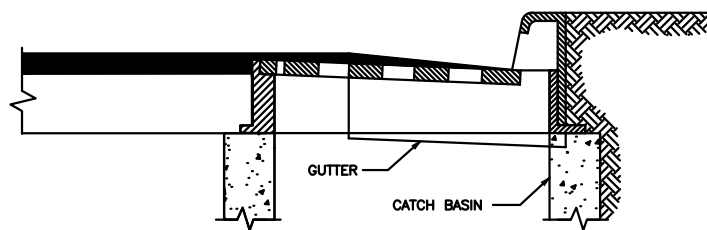
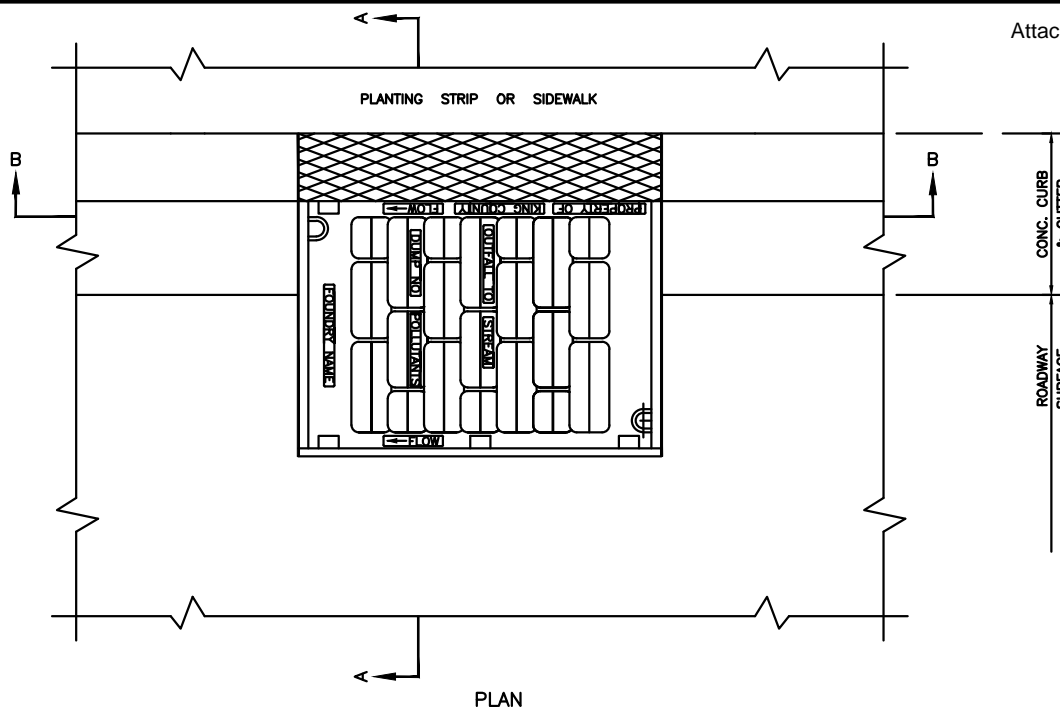
BY CITY

MAY 2018

DATE

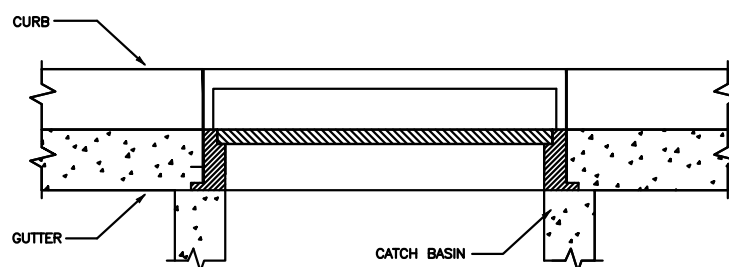
DWG. NO.

SD-7



NOTES:

1. SET TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.
2. THROUGH CURB INLET TO BE USED IN SAG CURVES.



NOTE:

1. ALL LIDS TO BE LOCKING UNLESS OTHERWISE SPECIFIED IN PLANS.



CITY OF NORTH BEND
THROUGH CURB INLET FRAME
& GRATE WITH VERTICAL CURB

APPROVED:

MARK RIGOS, P.E.

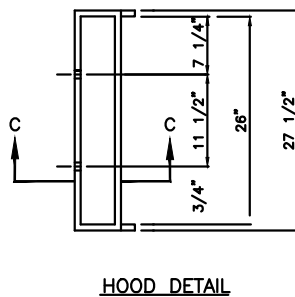
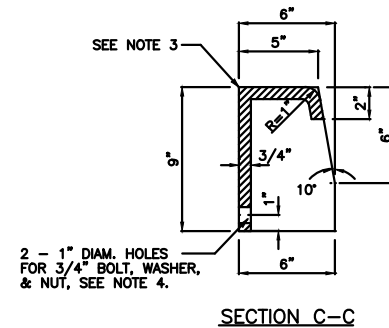
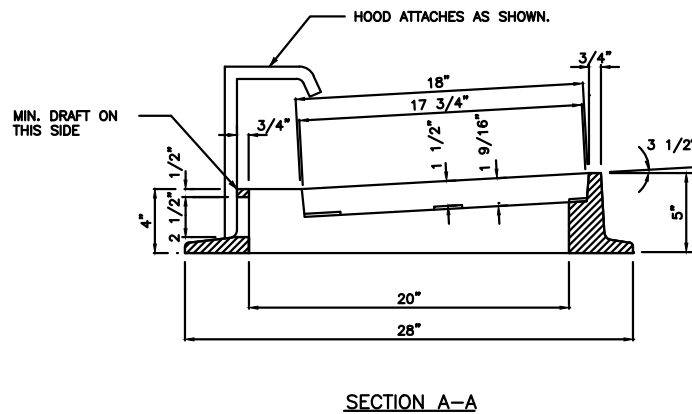
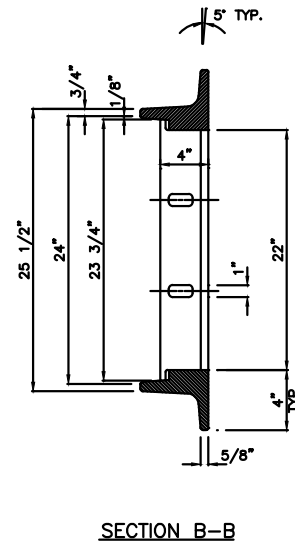
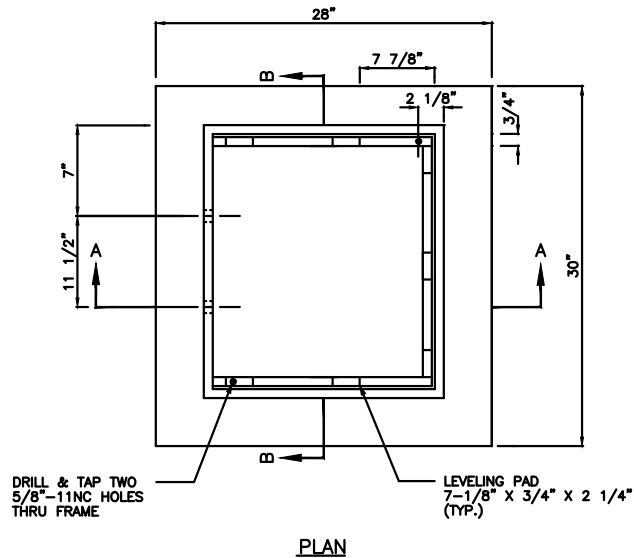
BY CITY

MAY 2018

DATE

DWG. NO.

SD-8



NOTES:

1. MATERIAL SHALL CONFORM TO SECTION 9-05.15(2) OF THE WSDOT STANDARD SPECIFICATIONS.
2. PATTERN ON TOP SURFACE OF HOOD SHALL BE 3/16" NON-SKID DIAMOND.
3. BOLT, WASHER, AND NUT SHALL BE GALVANIZED OR CORROSION RESISTANT.
4. ALL LIDS TO BE LOCKING UNLESS OTHERWISE SPECIFIED IN PLANS.



CITY OF NORTH BEND

THROUGH CURB INLET FRAME

APPROVED:

MARK RIGOS, P.E.

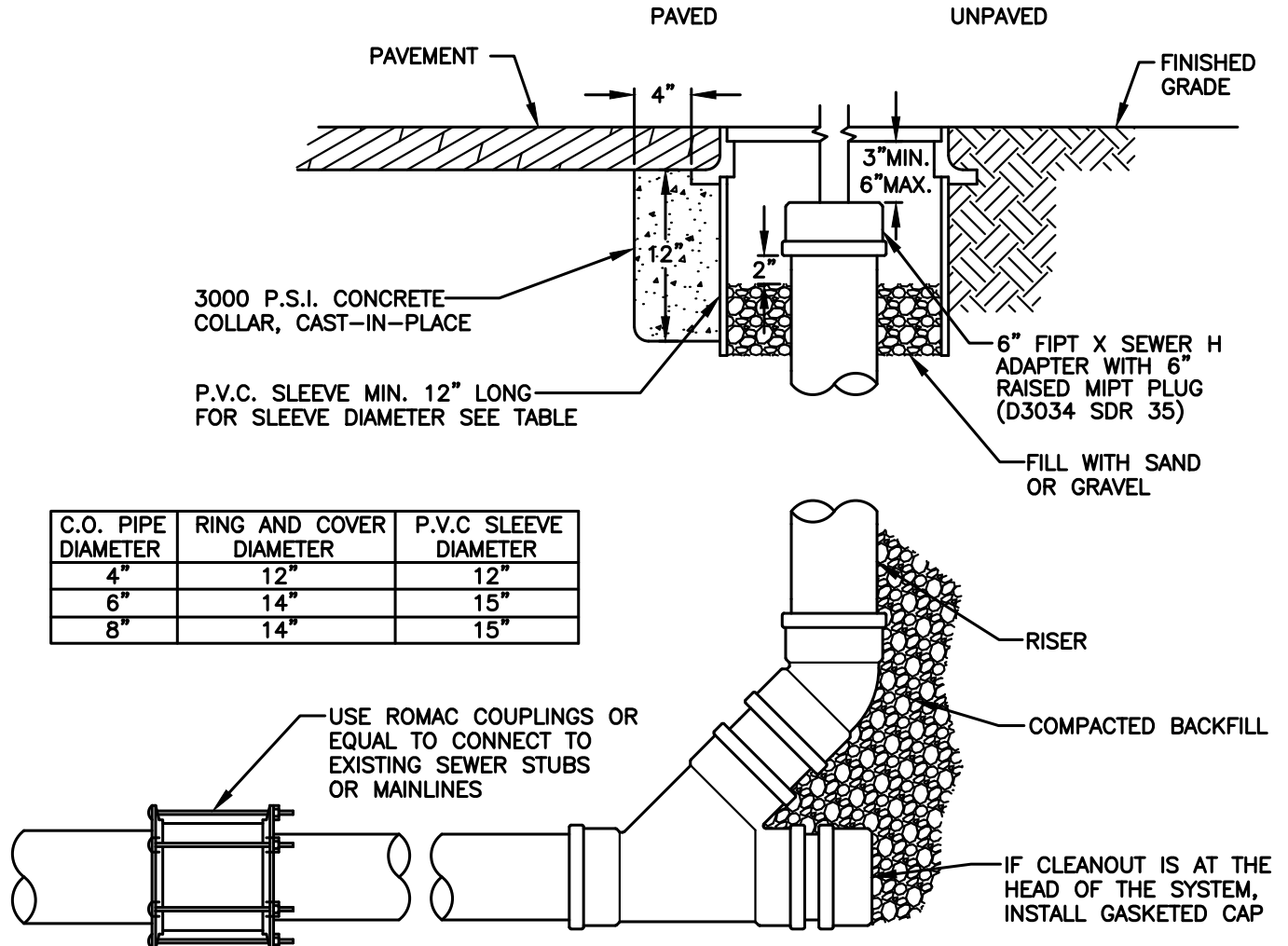
BY CITY

MAY 2018

DATE

DWG. NO.

SD-9

**NOTES:**

1. BOLT-LOCKING CAST IRON RING AND COVER SHALL BE USED IN RIGHT-OF-WAY AND EASEMENTS AND MUST BE RATED HS-20 IF USED IN PAVED AREAS. SEE TABLE FOR SIZES.
2. MID-STATES PLASTIC BOX OR EQUAL MAY BE USED IF C.O. IS OUTSIDE OF RIGHT-OF-WAY OR EASEMENT. SEE TABLE FOR SIZES. THE COVER FOR THE PLASTIC BOX SHALL BE DUCTILE IRON AND READ "SEWER" OR BE BLANK (NO LABEL).
3. CAST IRON COVER SHALL READ "STORM".
4. 14" BOLT-LOCKING CAST IRON COVER SHALL BE EQUAL TO OLYMPIC FOUNDRY PART NUMBER M1060.
5. SPECIAL "DECORATIVE" CASTING MAY BE USED IF PRE-APPROVED BY CITY.



CITY OF NORTH BEND

CLEANOUT TO GRADE

APPROVED:

MARK RIGOS, P.E.

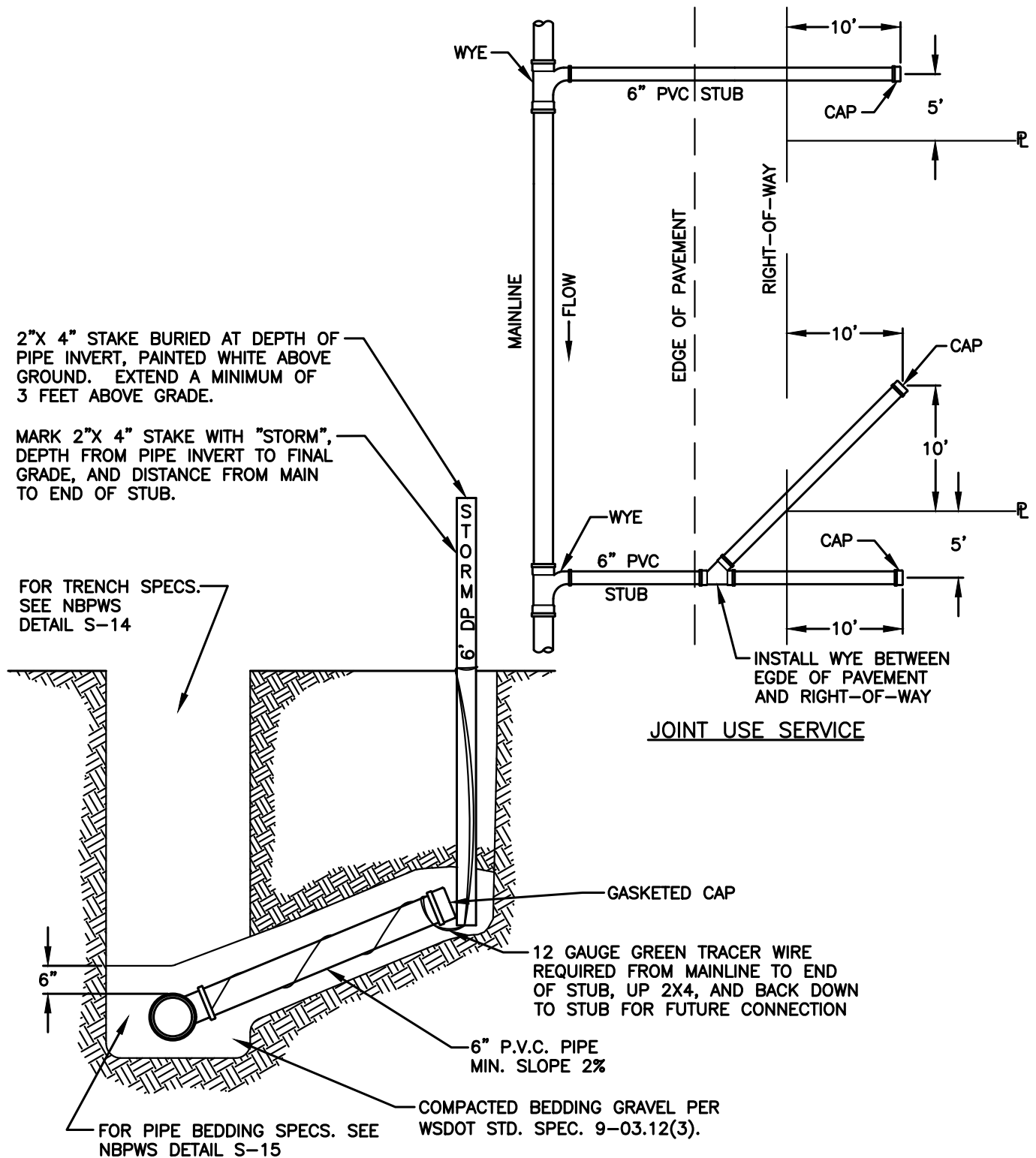
BY CITY

MAY 2018

DATE

DWG. NO.

SD-10



NOTES:

1. UNLESS OTHERWISE INDICATED ON PLAN, SIDE SEWER SHALL BE MINIMUM OF 5 FEET DEEP AT PROPERTY LINE, OR 5 FEET LOWER THAN THE LOWEST ELEVATION, WHICHEVER IS LOWER.
2. PIPE CAN BE REDUCED TO 4" DIAMETER ON PRIVATE PROPERTY.
3. CLEANOUT SHALL BE INSTALLED WITHIN 25 FEET OF WYES.



CITY OF NORTH BEND

STORM SEWER STUB

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

SD-11

MAXIMUM DISTANCE BETWEEN SPACERS
SHALL BE 6 FEET ON CENTER.

Attachment A

SEAL BOTH ENDS OF CASING WITH A
MANUFACTURED RUBBER SEALING DEVICE.

PLACE END SPACER MAXIMUM OF
12" FROM END OF CASING (TYP.)

ONE SPACER SHALL BE PLACED ON THE SPIGOT
END OF EACH SEGMENT AT THE LINE MARKING
THE LIMIT OF INSERTION INTO THE BELL. WHEN
THE JOINT IS COMPLETE, THE SPACER SHALL BE
IN CONTACT WITH THE BELL OF THE JOINT SO
THAT THE SPACER PUSHES THE JOINT AND
RELIEVES COMPRESSION WITHIN THE JOINT.

STEEL PIPE CASING (MILL PIPE) OR DUCTILE IRON.

USE 2 STAINLESS STEEL HOSE CLAMPS TO SECURE RUBBER
SEAL (1 ON CARRIER PIPE AND 1 ON CASING PIPE).

CARRIER PIPE

CARRIER PIPE DIAMETER	4"	6"	8"	10"	12"
CASING DIAMETER	10"	12"	14"	16"	20"
STEEL CASING THICKNESS	0.25"	0.25"	0.25"	0.25"	0.25"
SPACER BAND WIDTH	8"	8"	8"	8"	8"

NOTES:

1. RUNNER HEIGHT SHALL BE SIZED TO PROVIDE:
 - A. MIN. 0.75" BETWEEN CARRIER PIPE BELL AND CASING PIPE WALL AT ALL TIMES.
 - B. MIN. 1.00" CLEARANCE BETWEEN RUNNERS AND TOP OF CASING WALL TO PREVENT JAMMING DURING UNSTALLATION.
2. MINIMUM RUNNER WIDTH SHALL BE 2 INCHES.
3. STEEL CASING DIAMETERS ARE "OUTSIDE DIAMETER" FOR 16" AND LARGER. .
4. SPACER BAND WIDTH SHALL BE 12" FOR CARRIER PIPES THAT ARE 36" DIAMETER OR GREATER.
5. FOR STEEL CASING, PROVIDE SHOP-APPLIED ANTI-CORROSIVE COATING ON CASING EXTERIOR CONFORMING TO AWWA 210. MINIMUM COATING 16 MILS DFT (DO NOT EXCEED MANUFACTURER'S MAXIMUM THICKNESS). PRODUCT SHALL BE EQUAL TO TNEMEC HI-BUILD TNEME-TAR SERIES 46H-413.



CITY OF NORTH BEND

CASING INSTALLATION

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

SD-12

OLYMPIC SM60BH

Attachment A
OLYMPIC MH25BH

NOTES:

1. MATERIAL: DUCTILE IRON ASTM A536, CL80-55-06.
2. PROVIDE 2-5/8" DIAMETER STAINLESS STEEL ALLEN TYPE BOLTS
COUNTER SUNK FLUSH WITH COVER.
3. ALL LIDS TO BE LOCKING UNLESS OTHERWISE SPECIFIED IN PLANS.

NOTES:

1. MATERIAL: CAST IRON ASTM A48, CL 30.
2. PROVIDE 2-5/8" DIAMETER STAINLESS STEEL ALLEN TYPE BOLTS
COUNTER SUNK FLUSH WITH COVER.
3. ALL LIDS TO BE LOCKING UNLESS OTHERWISE SPECIFIED IN PLANS.



CITY OF NORTH BEND

BEEHIVE GRATE

APPROVED:

MARK RIGOS, P.E.

BY CITY

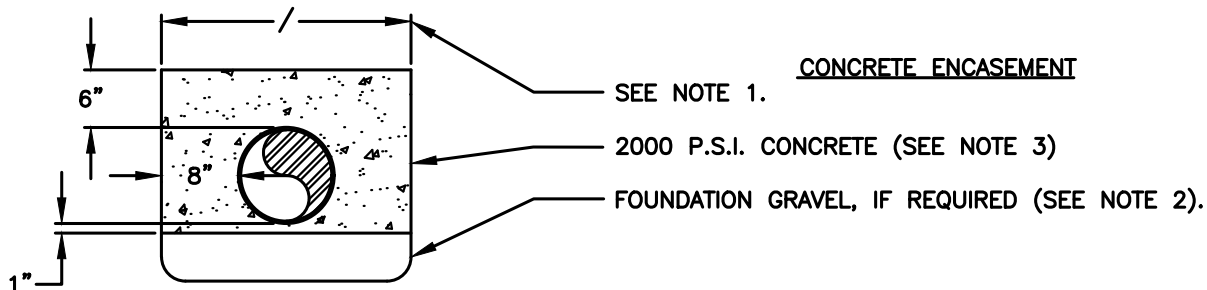
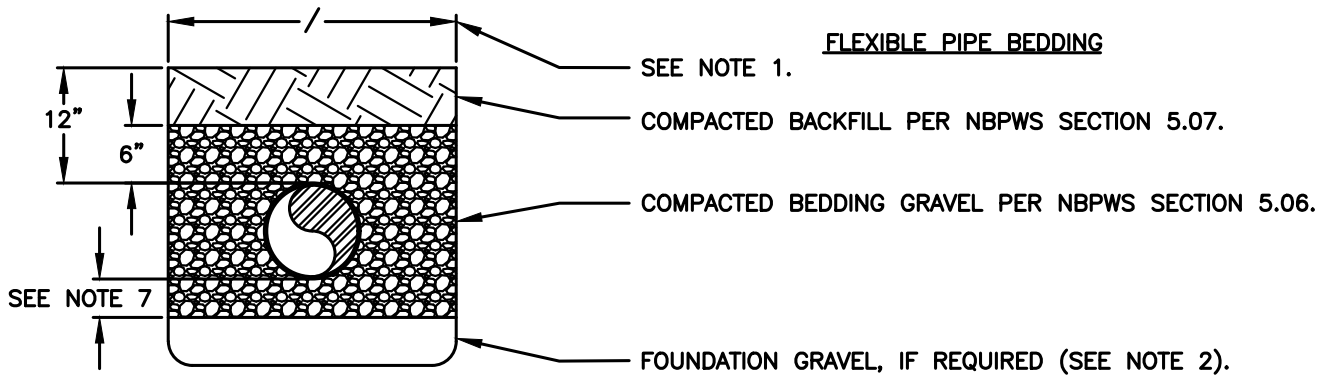
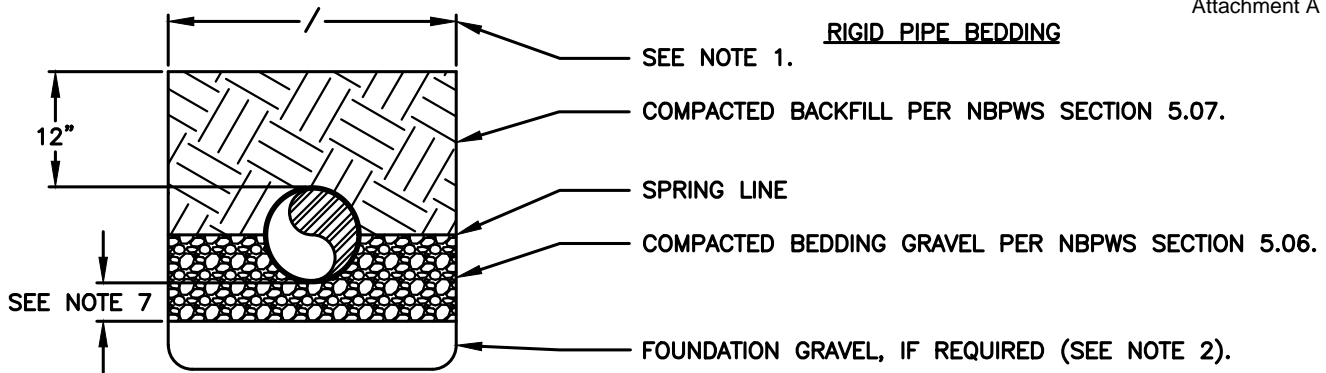
MAY 2018

DATE

DWG. NO.

SD-13

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**NOTES:**

1. FOR PIPES 15-INCHES AND UNDER, TRENCH WIDTH=I.D. + 30-INCHES. FOR PIPES 18-INCHES AND OVER, TRENCH WIDTH=(1.5 x I.D.)+18-INCHES. PER SECTION 2-09.4, "MEASUREMENT", OF THE WSDOT STANDARD SPECIFICATIONS.
2. EXCAVATE UNSTABLE MATERIAL DOWN TO FIRM SOIL AND REPLACE WITH FOUNDATION GRAVEL PER SECTION 9-03.9(1), "BALLAST", OF THE STANDARD SPECIFICATIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANCHORING PIPE TO PREVENT FLOTATION DURING CONCRETE PLACEMENT.
4. WHEN THE DESIGN OF TANKS OR PIPES DOES NOT TAKE INTO ACCOUNT BUOYANCY, UNDERDRAINS SHALL BE PROVIDED.
5. PROVIDE CLEANOUTS ON UNDERDRAIN PIPE, EVERY 100 FEET, AND AT BENDS OR JUNCTIONS.
6. SEE WSDOT SECTION 9-03.9 FOR ADDITIONAL REQUIREMENTS.
7. 4-INCHES FOR PIPE 18-INCH DIAMETER AND LESS; 6-INCHES FOR PIPE GREATER THAN 18-INCH DIAMETER.
8. COMPACTED CRUSHED SURFACING TOP COURSE CAN ALSO BE USED AS BEDDING GRAVEL.

**CITY OF NORTH BEND****PIPE BEDDING DETAIL**

APPROVED:

MARK RIGOS, P.E.

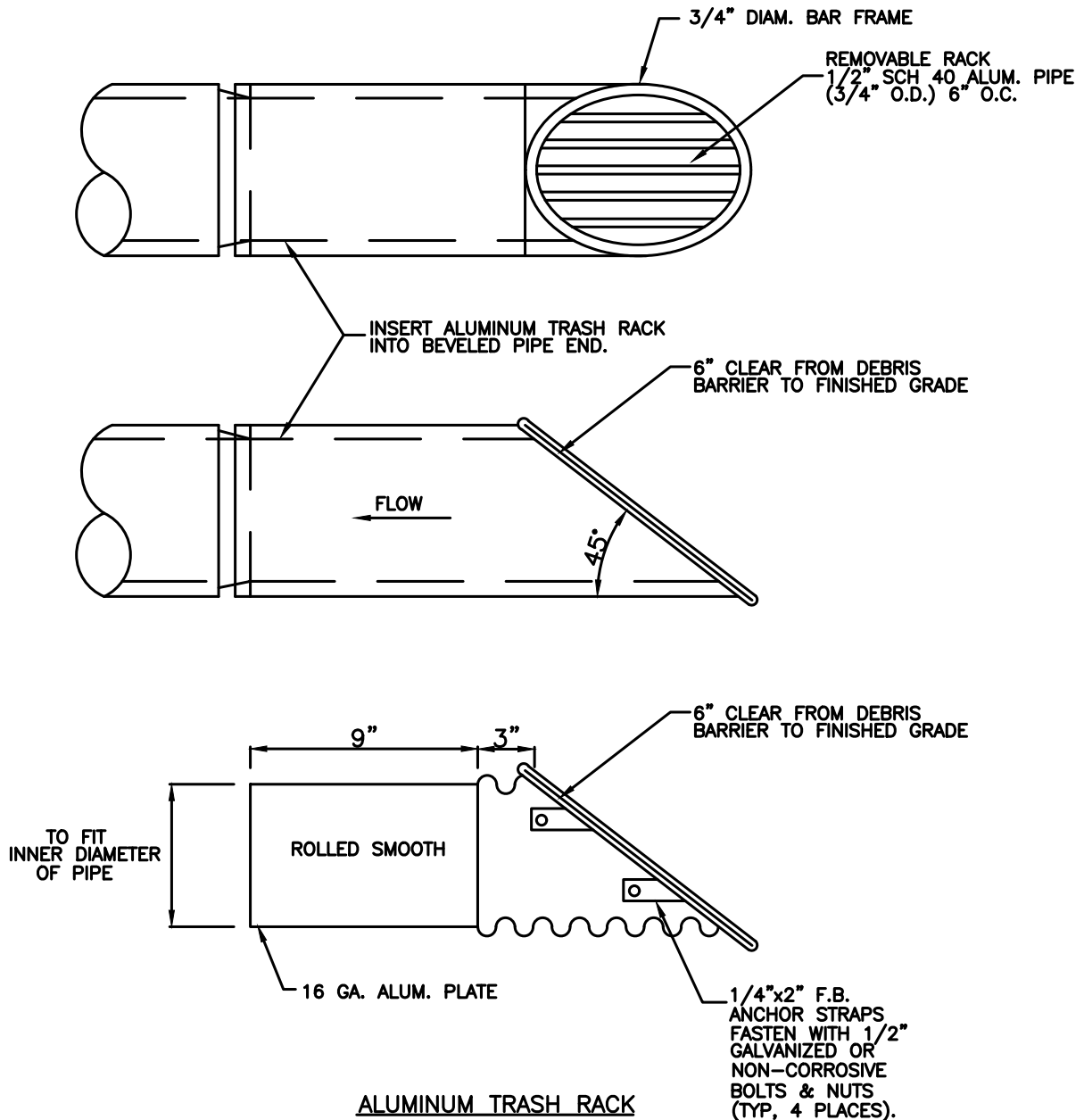
BY CITY

MAY 2018

DATE

DWG. NO.

SD-14

**NOTES:**

1. ALL STEEL PARTS MUST BE GALVANIZED & ASPHALT COATED (TREATMENT 1 OR BETTER).
2. CONTRACTOR TO VERIFY DIMENSIONS.
3. REQUIRED ON ALL PIPE ENDS 18" OR GREATER PER KCSWDM 4-12, 2016 VERSION.



CITY OF NORTH BEND

TRASH RACK DEBRIS BARRIER

APPROVED:

MARK RIGOS, P.E.

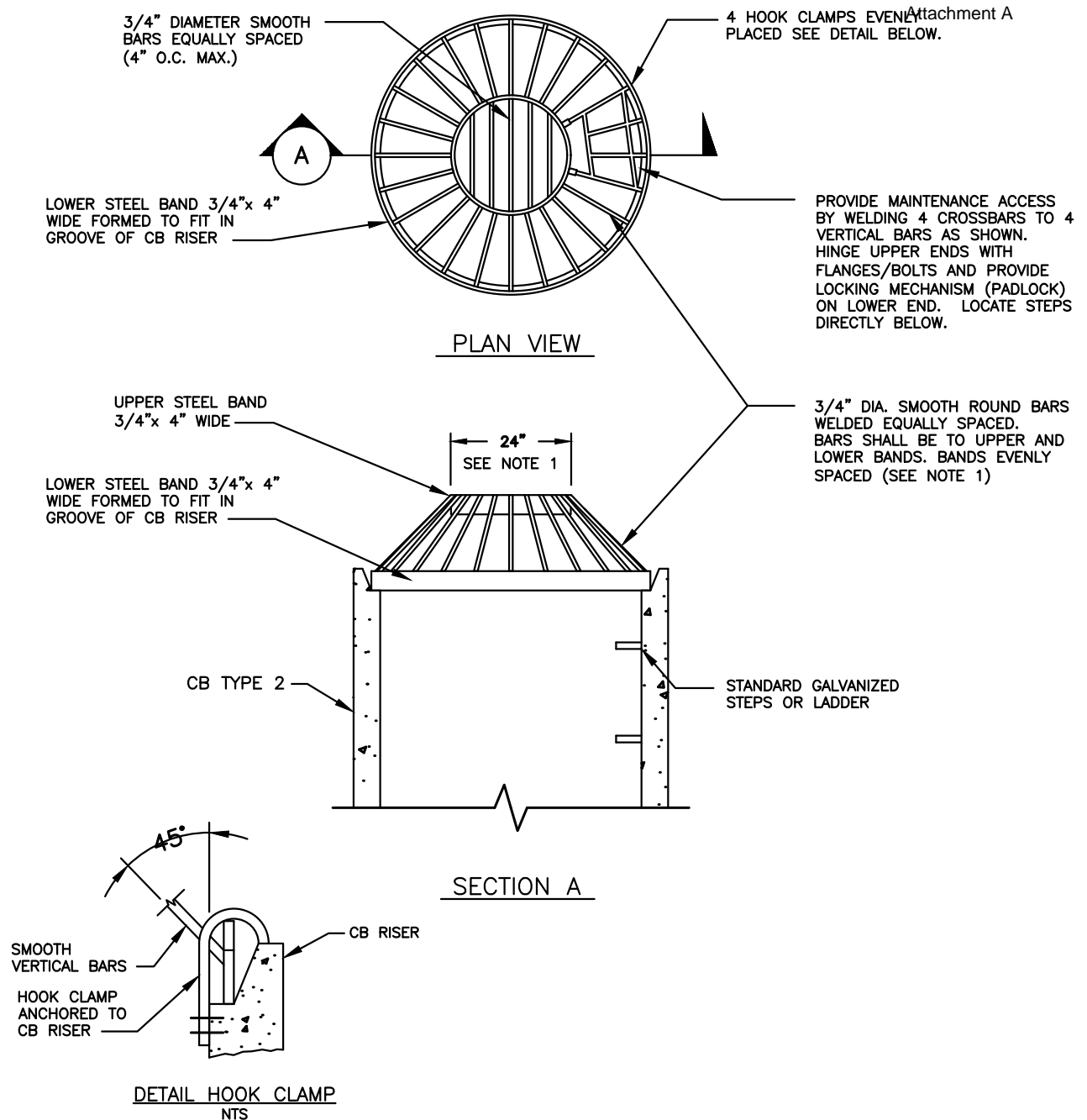
BY CITY

MAY 2018

DATE

DWG. NO.

SD-15



NOTES:

1. DIMENSIONS ARE FOR ILLUSTRATION ON 54 IN. DIAMETER CB. FOR DIFFERENT DIAMETER CB'S, ADJUST TO MAINTAIN 45 DEGREE ANGLE ON "VERTICAL" BARS AND 7 IN. O.C. MAXIMUM SPACING OF BARS AROUND LOWER STEEL BAND.
2. METAL PARTS MUST BE CORROSION RESISTANT, STEEL BARS MUST BE GALVANIZED.
3. THIS DEBRIS BARRIER IS ALSO RECOMMENDED FOR USE ON THE INLET TO ROADWAY CROSS-CULVERTS WITH HEIGHT POTENTIAL FOR DEBRIS COLLECTION
4. USE OF THIS STRUCTURE WITHIN THE ROAD RIGHT-OF-WAY SHALL MEET THE MINIMUM CLEAR ZONE REQUIREMENTS.
5. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



CITY OF NORTH BEND

DEBRIS CAGE

APPROVED:

MARK RIGOS, P.E.

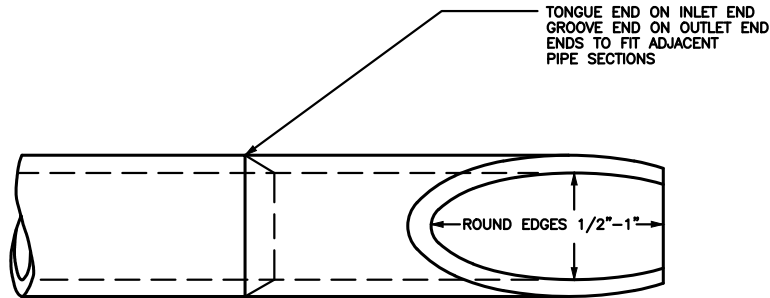
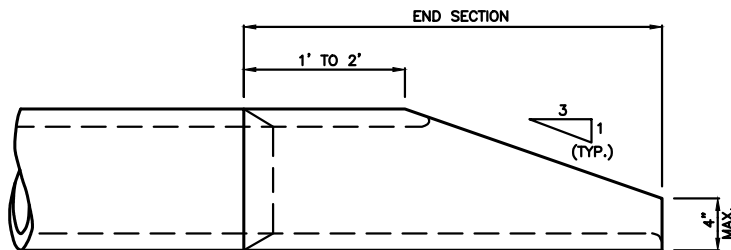
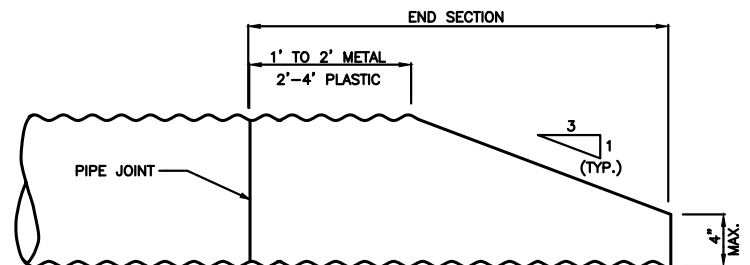
BY CITY

MAY 2018

DATE

DWG. NO.

SD-16

**PLAN****ELEVATION****CONCRETE PIPE****METAL & THERMO-PLASTIC PIPE****NOTE:**

1. SIDE SLOPE SHALL BE WARPED TO MATCH THE BEVELED PIPE END. WHEN CULVERT IS ON SKEW, BEVELED END SHALL BE ROTATED TO CONFORM TO SLOPE. IF SLOPE DIFFERS FROM 3:1, PIPE SHALL BE BEVELED TO MATCH SLOPE.
2. REFER TO WSDOT STANDARD PLAN B-70.20.00 FOR ADDITIONAL DETAILS.
3. FOR PIPES UNDER 18" DIAMETER.

**CITY OF NORTH BEND****BEVELED END PIPE SECTION**

APPROVED:

MARK RIGOS, P.E.

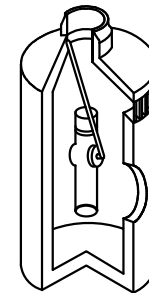
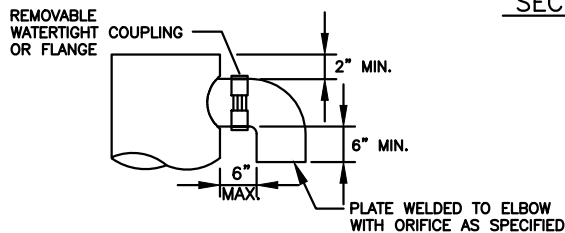
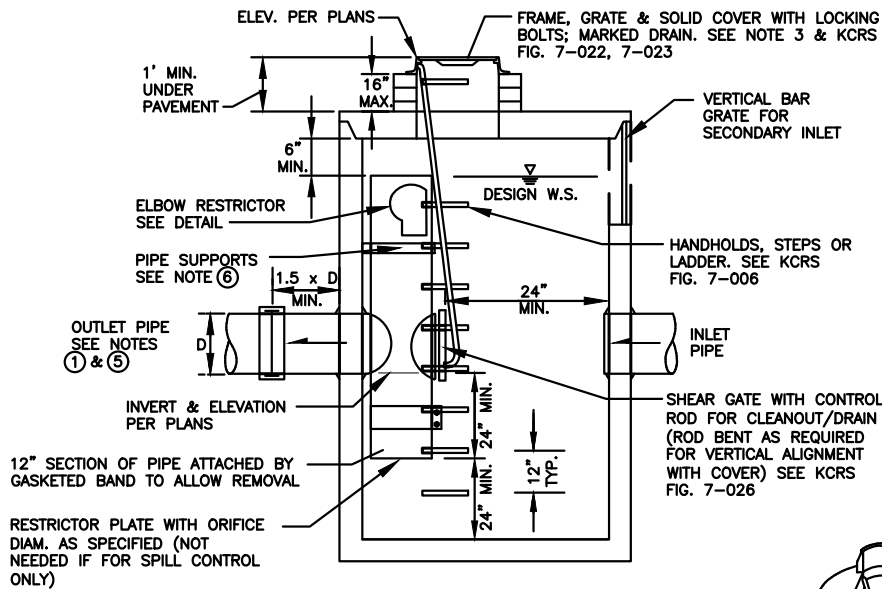
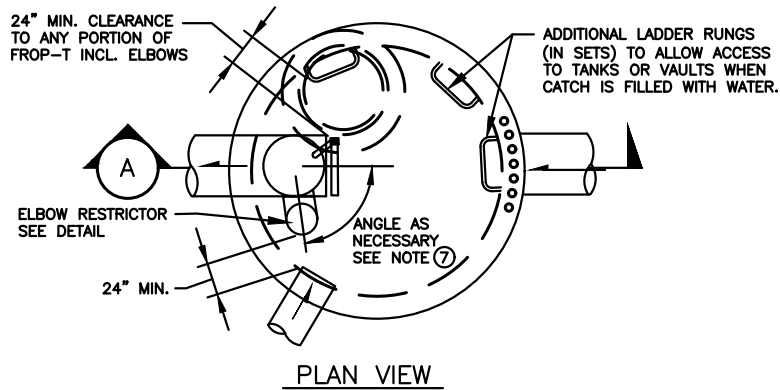
BY CITY

MAY 2018

DATE

DWG. NO.

SD-17

**NOTES:**

- ① USE A MINIMUM 54 IN. DIAM. TYPE 2 CATCH BASIN.
- ② OUTLET CAPACITY: 100-YEAR DEVELOPED PEAK FLOW.
3. METAL PARTS: CORROSION RESISTANT. NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1.
4. FRAME AND LADDER OR STEPS OFFSET SO:
 - A. CLEANOUT GATE IS VISIBLE FROM TOP;
 - B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE;
 - C. FRAME IS CLEAR OF CURB.
- ⑤ IF METAL OUTLET CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4 IN.
- ⑥ PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH 5/8 IN. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO M/H WALL (VERTICAL SPACING).
- ⑦ LOCATE ELBOW RESTRICTOR(S) AS NECESSARY TO PROVIDE MIN. CLEARANCE AS SHOWN.
8. LOCATE ADDITIONAL LADDER RUNGS IN STRUCTURES USED AS ACCESS TO TANKS OR VAULTS TO ALLOW ACCESS WHEN CATCH BASIN IS FILLED WITH WATER.
9. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



CITY OF NORTH BEND

FLOW RESTRICTOR TEE TYPE

APPROVED:

MARK RIGOS, P.E.

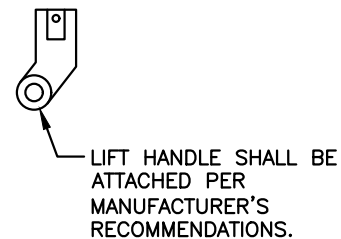
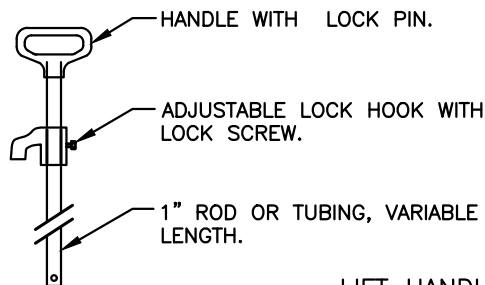
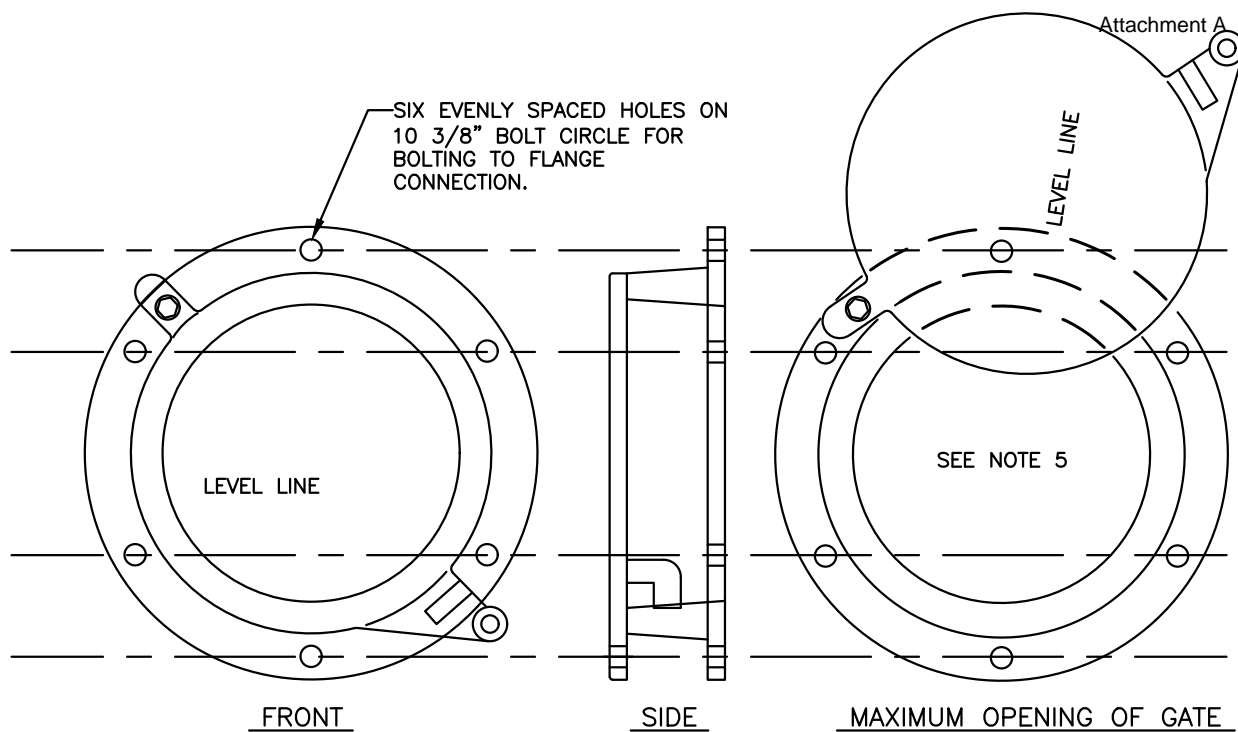
BY CITY

MAY 2018

DATE

DWG. NO.

SD-18



NOTES:

1. SHEAR GATE SHALL BE ALUMINUM ALLOY PER ASTM B-26-ZG-32a OR CAST IRON ASTM A48 CLASS 30B AS REQUIRED.
2. GATE SHALL BE 8 IN. DIAM. UNLESS OTHERWISE SPECIFIED.
3. GATE SHALL BE JOINED TO TEE SECTION BY BOLTING (THROUGH FLANGE), WELDING, OR OTHER SECURE MEANS.
4. LIFT ROD: AS SPECIFIED BY MFR. WITH HANDLE EXTENDING TO WITHIN ONE FOOT OF COVER AND ADJUSTABLE HOOK LOCK FASTENED TO FRAME OR UPPER HANDHOLD.
5. GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.
6. NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE.
7. MATING SURFACES OF LID AND BODY TO BE MACHINED FOR PROPER FIT.
8. FLANGE MOUNTING BOLTS SHALL BE 3/8 IN. DIAM. STAINLESS STEEL.
9. ALTERNATE CLEANOUT/SHEAR GATES TO THE DESIGN SHOWN ARE ACCEPTABLE, PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE AND HAVE A SIX BOLT, 10 3/8 IN. BOLT CIRCLE FOR BOLTING TO THE FLANGE CONNECTION.
10. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



CITY OF NORTH BEND

TEE SECTION
SHEAR GATE DETAIL

APPROVED:

MARK RIGOS, P.E.

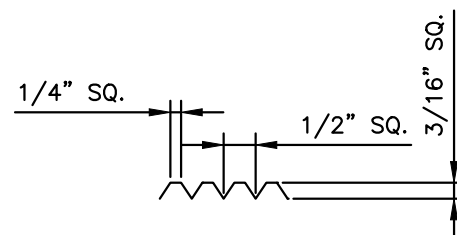
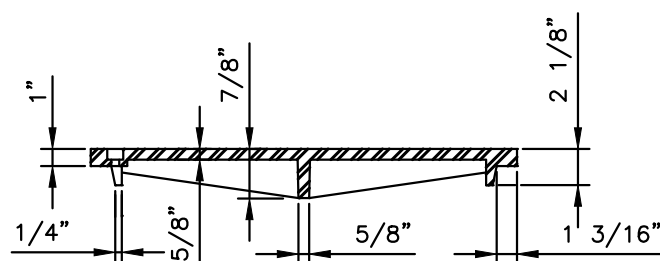
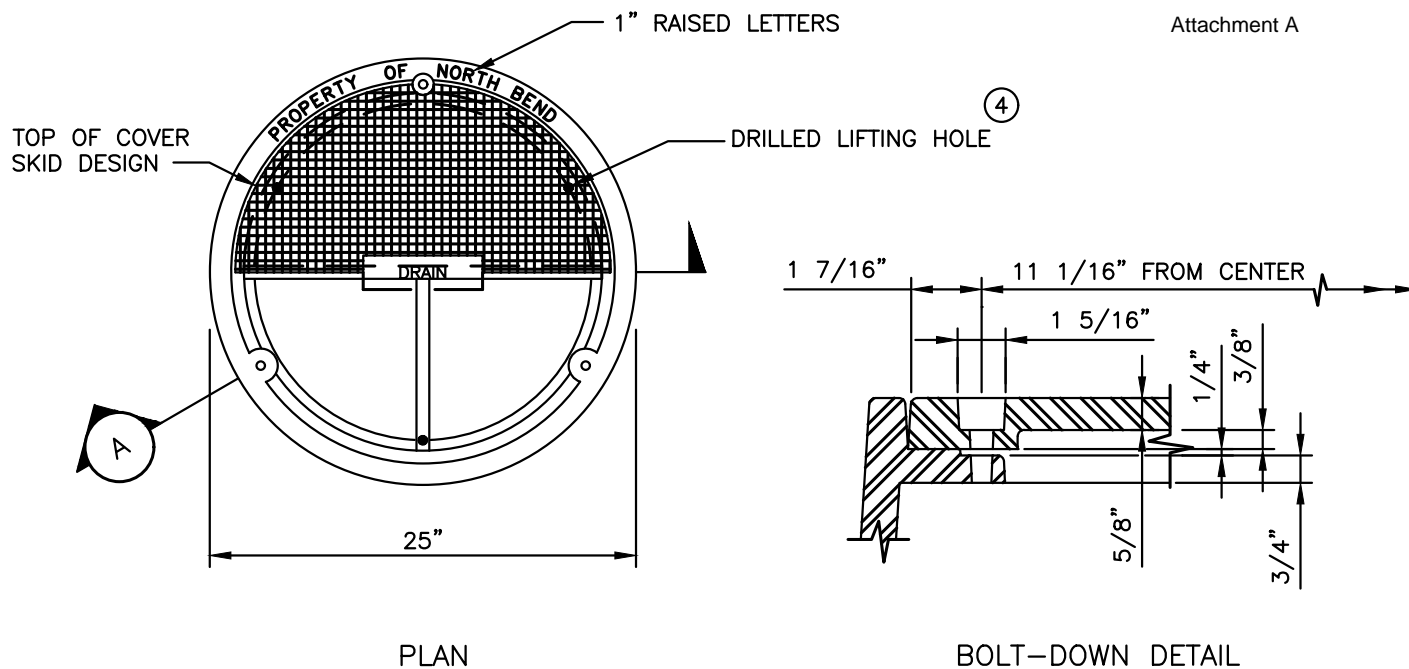
BY CITY

MAY 2018

DATE

DWG. NO.

SD-19

NOTES:

1. USE WITH THREE LOCKING BOLTS 5/8 IN.-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2 IN. LONG. DRILL HOLES SPACED 120° AT 11 1/16 IN. RADIUS.
2. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
3. SEE SEC. 7.05.
- ④ DRILL THREE 1 IN. HOLES SPACED AT 120° AND 9 1/2 IN. RADIUS.
5. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.
- 6 ALL LIDS TO BE LOCKING UNLESS APPROVED OTHERWISE.



CITY OF NORTH BEND

24" LOCKING MANHOLE COVER

APPROVED:

MARK RIGOS, P.E.

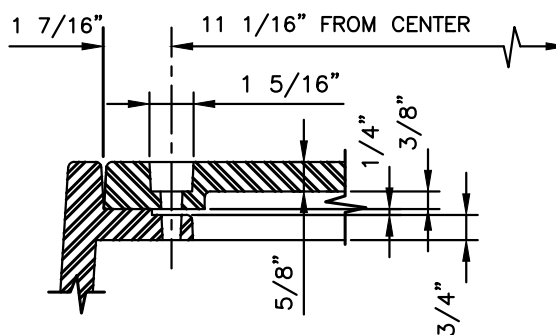
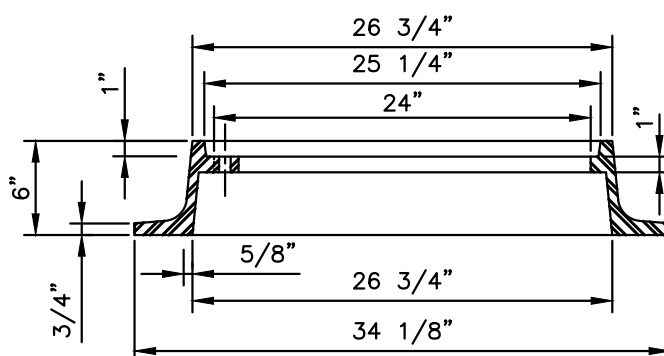
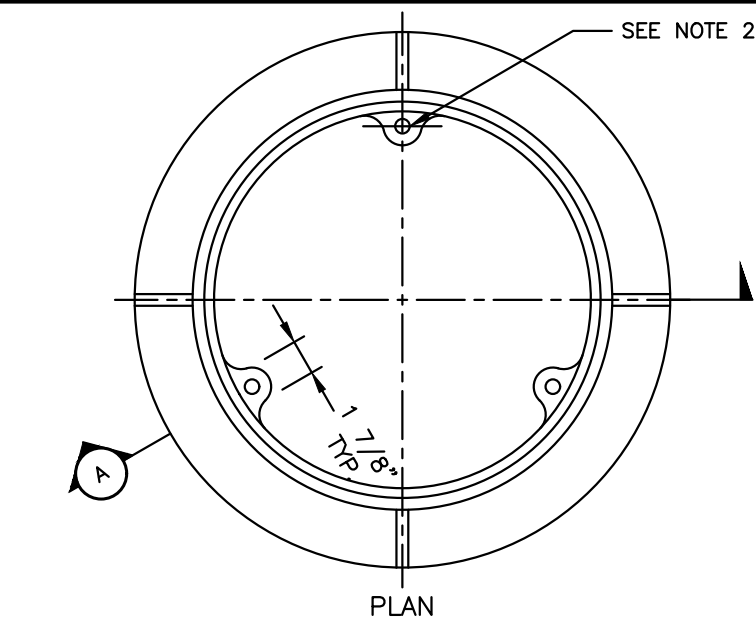
BY CITY

MAY 2018

DATE

DWG. NO.

SD-20

NOTES:

1. MATERIAL IS CAST IRON ASTM A48 CLASS 30.
2. DRILL AND TAP THREE 5/8 IN.-11 NC HOLES THROUGH FRAME AT 120° AND 11 1/16 IN. RADIUS.
3. SEE SEC. 7.05.
4. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



CITY OF NORTH BEND

24" LOCKING MANHOLE FRAME

APPROVED:

MARK RIGOS, P.E.

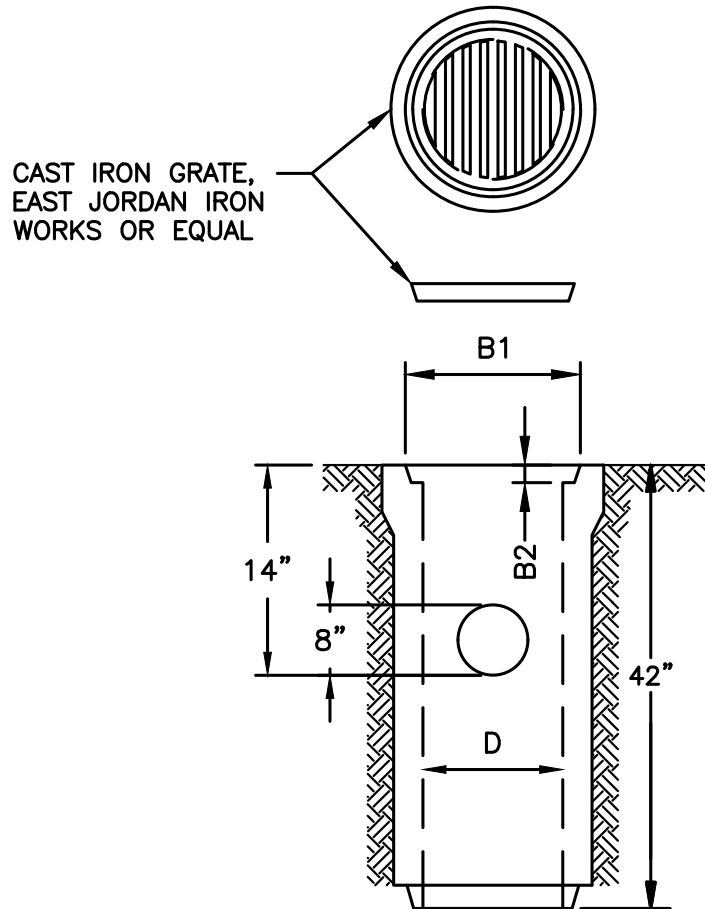
BY CITY

MAY 2018

DATE

DWG. NO.

SD-21



D	B1	B2	FLAT GRATE
12"	16"	3.563"	6012M
15"	19.5"	3.563"	6015M
18"	23"	3.75"	6018M

NOTES:

1. GRATE SHOWN IS FLAT. BEEHIVE GRATE IS OPTIONAL.
2. PLACE CEMENT CONCRETE IN BOTTOM TO FORM FLOOR, IF DESIRED.
3. AREA DRAIN BODY IS MODIFIED CAST CONCRETE BELL/SPIGOT PIPE.
4. 18" CPEP, BASE WITH AN OLYMPIC FOUNDRY LID (PART NO. 10-1800) CAN BE USED AS AN ALTERNATIVE, WITH CITY OF NORTH BEND APPROVAL.



CITY OF NORTH BEND

TYPE 45 AREA DRAIN

APPROVED:

MARK RIGOS, P.E.

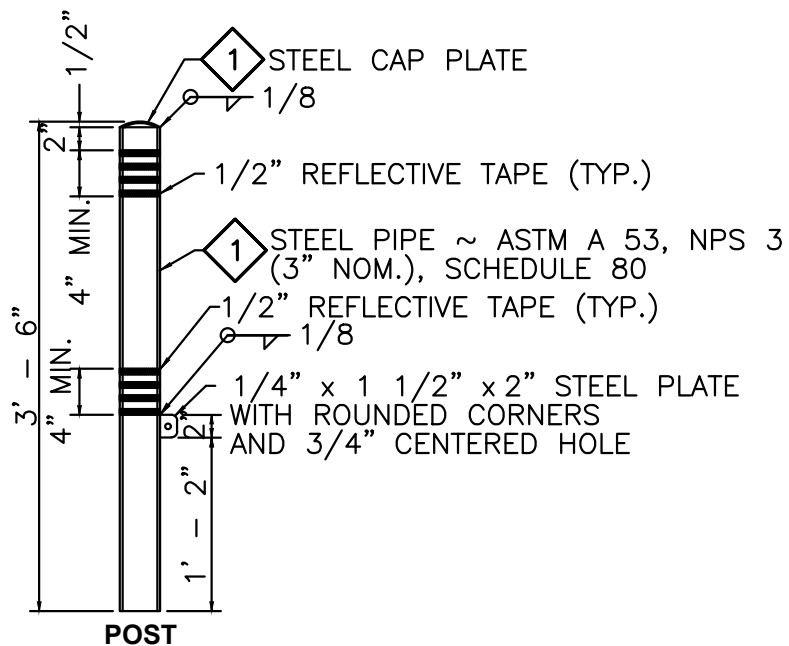
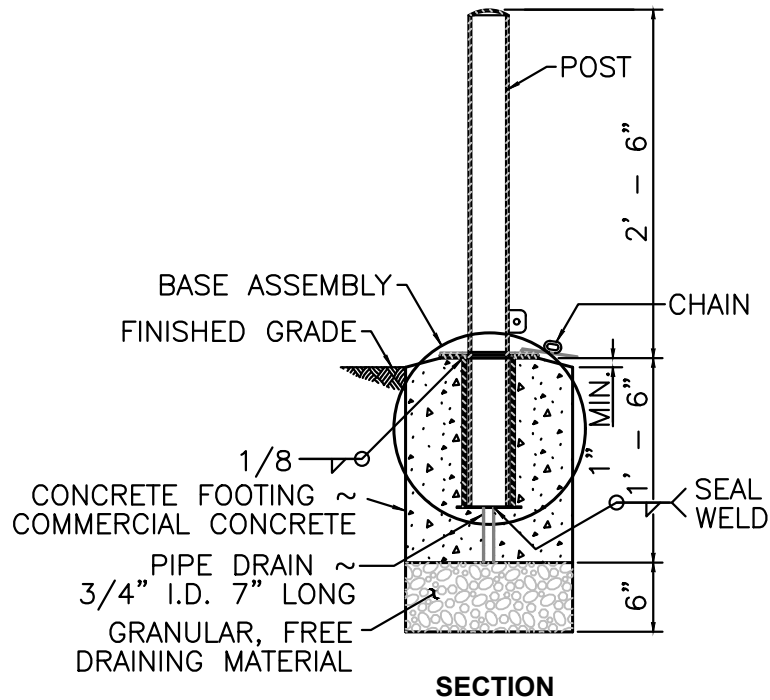
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MAY 2018

DATE

DWG. NO.

SD-22



1 PAINT ASSEMBLY WITH A "HIGHLY VISIBLE" COLOR. (SAFETY YELLOW IS ACCEPTABLE)

NOTES:

1. SEE DETAIL SD-23B FOR BASE DETAILS.
2. PLANS TO SPECIFY TYPE AND STYLE USED.



CITY OF NORTH BEND

STEEL BOLLARD POST

APPROVED:

MARK RIGOS, P.E.

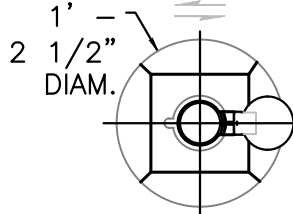
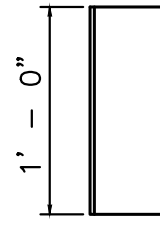
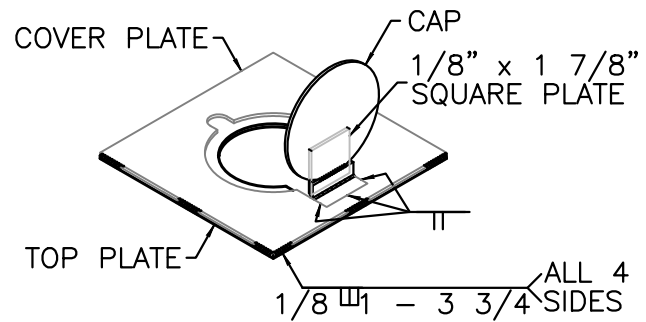
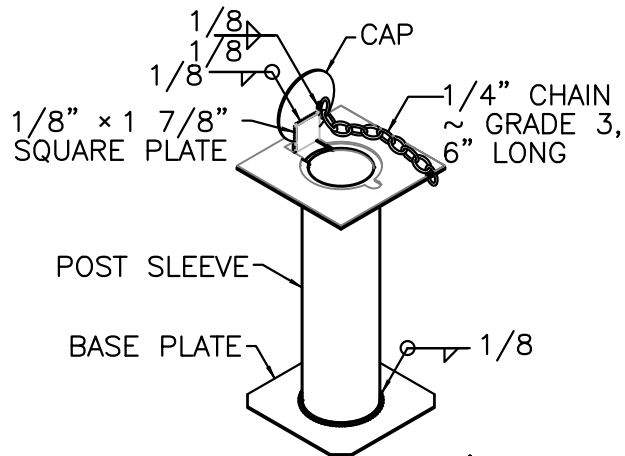
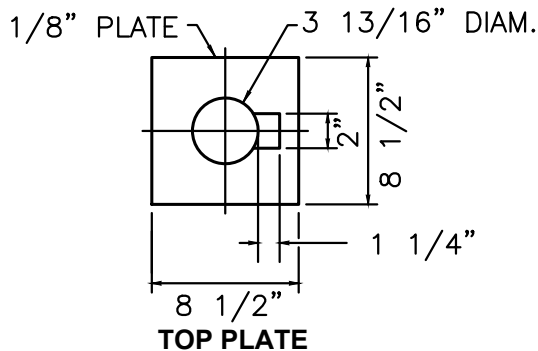
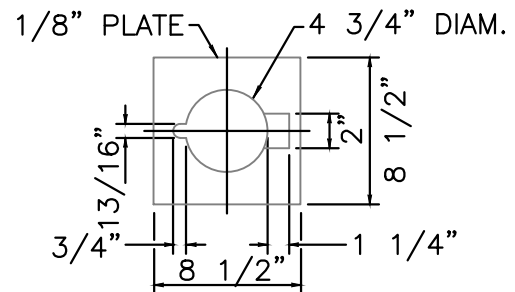
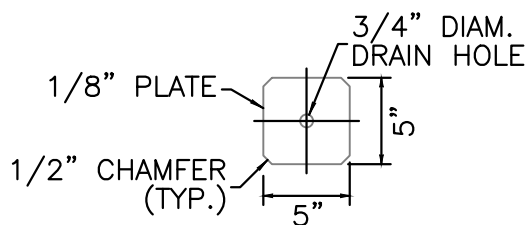
BY CITY

MAY 2018

DATE

DWG. NO.

SD-23A

DIRECTION OF PEDESTRIAN/
BICYCLE TRAFFIC**ROUND FOOTING**STEEL PIPE ~ ASTM A
53, NPS 4 (4" NOM.),
SCHEDULE 40 ~ WELD
TO TOP PLATE**POST SLEEVE****1 BASE ASSEMBLY****TOP PLATE****COVER PLATE****BASE PLATE**1 1/4" x 2", FULL SURFACE,
HEAVY DUTY, WELD-ON HINGE**CAP AND HINGE****NOTES:**

1. SEE DETAIL SD-23A FOR POST DETAILS.
2. PLANS TO SPECIFY TYPE AND STYLE USED.

1 PAINT ASSEMBLY WITH A "HIGHLY VISIBLE" COLOR. (SAFETY YELLOW IS ACCEPTABLE)

**CITY OF NORTH BEND****STEEL BOLLARD DETAILS**

APPROVED:

MARK RIGOS, P.E.

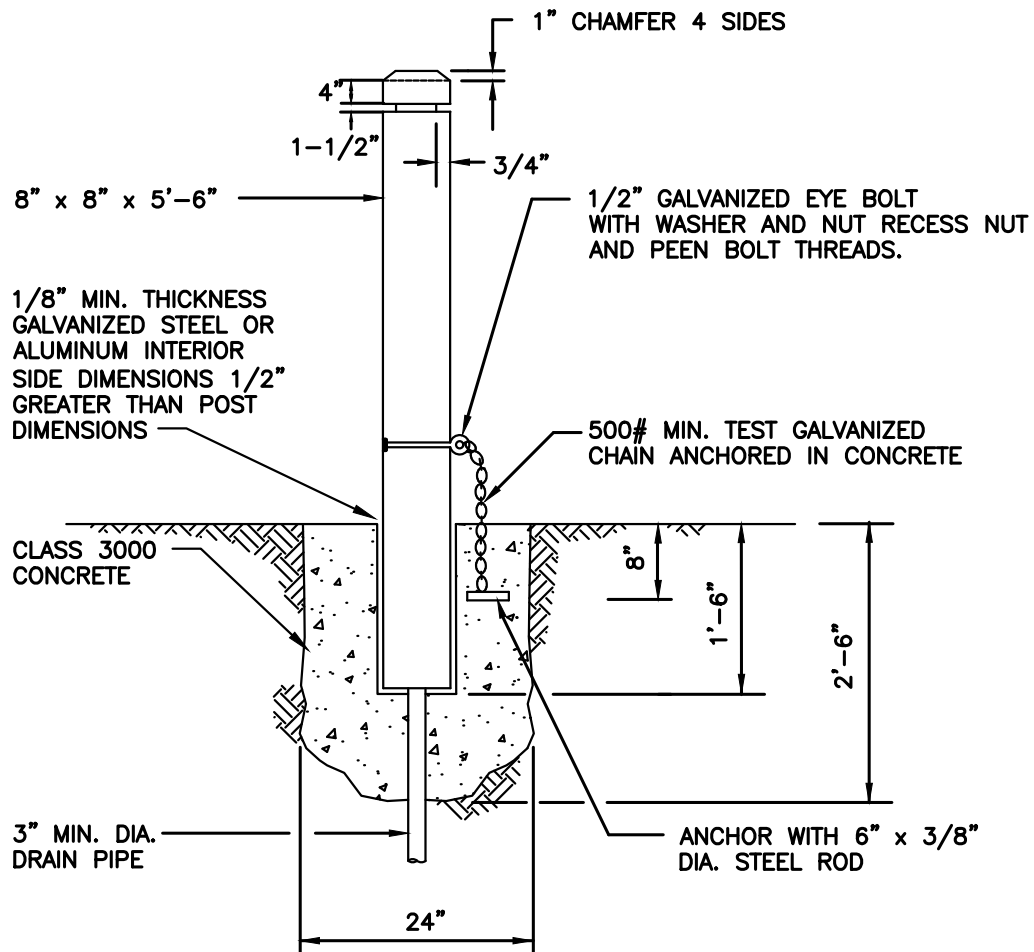
BY CITY

MAY 2018

DATE

DWG. NO.

SD-23B

**NOTES:**

1. TIMBER SHALL BE DOUGLAS FIR, DENSE CONSTRUCTION GRADE, AND SHALL BE TREATED PER WSDOT 9-09.3.
2. STEEL TUBE SHALL CONFORM TO ASTM 453 OR ASTM A53 GRADE A.
3. NUTS, BOLTS & WASHERS SHALL CONFORM TO WSDOT STANDARD.
4. ALL STEEL PARTS SHALL BE GALVANIZED.
5. PLANS TO SPECIFY TYPE AND STYLE USED.



CITY OF NORTH BEND

REMOVABLE WOODEN BOLLARD

APPROVED:

MARK RIGOS, P.E.

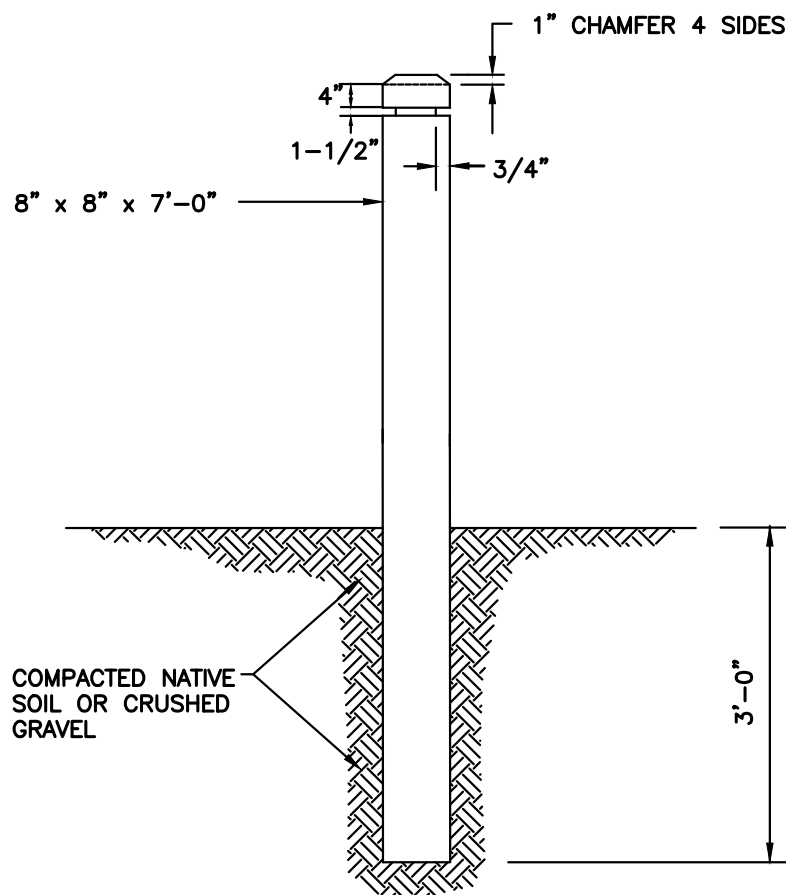
BY CITY

MAY 2018

DATE

DWG. NO.

SD-24

**NOTES:**

1. TIMBER SHALL BE DOUGLAS FIR, DENSE CONSTRUCTION GRADE, AND SHALL BE TREATED PER WSDOT 9-09.3.
2. PLANS TO SPECIFY TYPE AND STYLE USED.



CITY OF NORTH BEND

PERMANENT WOODEN BOLLARD

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

SD-25

SECTION 6 WATER

Planning, Designing,
and Constructing



Water Systems for
the Production,
Transmission, and

Distribution of Clean
Water ...



SECTION 6 WATER

6.01 General Requirements

A. General

These Engineering Standards set forth minimum standards for the planning, design, and construction of water facilities.

These standards do not include design of special facilities, such as Pump Stations or Reservoirs. These special facilities require unique design requirements and will be subject to individual review by the City.

Although these standards are intended to apply to physical development within the City's retail service area (both within city limits and in unincorporated King County), the Standards will not apply for all situations. Compliance with these Standards does not relieve the designer of the responsibility to apply conservative and sound professional judgment. These are minimum standards and are intended to assist, but not substitute for competent work by design professionals. The City may at its sole discretion due to special conditions and/or environmental constraints, require more stringent requirements than would normally be required under these Standards.

B. References

Wherever references are made to the standards, specifications, or other published data of the various national, regional, or local organizations, such organizations may be referred to by their acronym or abbreviation only. As a guide to the user, the following acronyms or abbreviations which may appear shall have the meanings indicated herein:

AASHTO	American Association of State Highway and Transportation Officials
ANSI	American National Standards Institute, Inc.
WSDOT	Washington State Department of Transportation
APWA	American Public Works Association
ASTM	American Society for Testing and Materials
AWWA	American Water Works Association
DOE	Washington State Department of Ecology
DOH	Washington State Department of Health
UPC	Uniform Plumbing Code
WAC	Washington Administrative Code

C. Governmental Agency Requirements

All construction on City, County or State roads or right-of-way shall be done in accordance with the agency's standards and requirements and in accordance with the franchise and/or permit requirements. The Contractor is responsible to determine these requirements prior to construction.

Where conflict exists between these Standards and permit requirements, the more stringent requirements as determined by the City shall take precedence.

Metal lids, hatches, and manhole covers located in sidewalks, crosswalks, or other pedestrian

areas must comply with ADA requirements and have a slip resistant surface.

D. The Reduction of Lead in Drinking Water Act

New USEPA Regulations Regarding Lead-Free Water System Materials

Effective January 4, 2014

The *Reduction of Lead in Drinking Water Act* was enacted on January 4, 2011, to amend Section 1417 of the *Safe Drinking Water Act*, which covers the use and introduction into commerce of lead pipes, plumbing fittings or fixtures, solder and flux. The *Reduction of Lead in Drinking Water Act* changes the *Safe Drinking Water Act* definition of “lead free.” All water system materials installed under these Standards shall comply with the revised Act. The Contractor shall provide Manufacturer’s Certificate of Compliance in accordance with the current edition of the Washington State Standard Specifications for all water system materials to be used. The Certificate must clearly state that the materials furnished comply with “lead-free” requirements of the revised *Safe Drinking Water Act*.

6.02 Plan Submittal

A. General

A submittal checklist is included in the appendices of these standards. Following the standards in accordance with the submittal checklist will help ensure a timely review of the proposed project and keep review costs to a minimum.

B. Water General Plan Notes

A listing of General Notes that must be incorporated on the first water plan sheet is contained in the Appendix. All the notes on the list may not pertain to every project. The Developer should include only those notes that are relevant to the project and may omit non-relevant notes. However, do not renumber the remaining General Notes. If additional notes are needed for specific aspects, they should be added after the General Notes.

C. As-Built Documentation

For all water projects the Developer or City Department responsible for the project shall provide as-built plans at completion of the project, in accordance with Section 3.20.

6.03 Water Planning and Design Standards

A. Planning Criteria

- (1) Serve to Extreme of Property: Ensure adjacent properties can be provided water service (extend to extreme of property with adequate capacity and pressure).
- (2) Demand Projections

Demand projections shall be taken from City of North Bend Water System Plan.

(3) System Parameters

- (a) Water velocity in mains - velocities shall not exceed 8 feet per second during highest demand and fire flow.

- (b) Distribution System Pressures (Measured at Building Elevation):

Desirable	-	Minimum	60 psi
Maximum			80 psi

Allowable	-	Minimum	50 psi
Maximum			100 psi

Minimum 30 psi is allowed for existing systems.

Individual pressure reducing valves are required on all services when water pressure exceeds 80 psi.

- (c) Reservoir Replenishment - Facilities (i.e., transmission mains, pump stations) shall be sized to enable storage facilities to be refilled within 72 hours after an emergency or major fire.

(4) Fire Flow Requirements

Fire flow requirements shall be as determined by City of North Bend Fire Marshal.

- (a) The City will determine available fire flow using its computer model.
- (b) The distribution system shall maintain a minimum pressure of 20 psi throughout the system, under maximum day demand (MDD) during fire flow conditions.

B. General Design Standards

- (1) Each fitting/valve shall have attachment type listed (e.g. FL, MJ, FL x MJ, etc.).
- (2) List pipe length (from center-of-fitting to center-of-fitting), size, and material along side of each pipe, e.g., 150 LF – 8-INCH D.I. Pipe material can be listed in a general note in lieu of listing along each pipe run.
- (3) Indicate type of pavement restoration required by right-of-way authority having jurisdiction (if working in existing streets).
- (4) Dimension existing and new main locations from right-of-way line and/or property line, or label stations and offsets.
- (5) Blocking: Reference Standard Details
- (a) At vertical bends, pipe shall be restrained a minimum of 36 feet (two joints) from each side of bend. Reduced-size concrete blocks shall be installed at bends per Standard Detail W-2. No change in pipe direction or diameter shall occur within 36 feet of the vertical bend. In addition, bends, tees, reducers, etc., beyond the

36-foot limit, shall be restrained with standard blocking per Standard Detail W-1 and W-3. Where these criteria cannot be met, plans should call for vertical blocking without joint restraint per Standard Detail W-3, or a restraint method should be designed and detailed on the plan.

- (b) Check if special blocking or joint restraint designs are necessary (e.g., poor soil, conflicting utility, etc.).
 - (c) Show all blocking on any detail drawing that shows vertical bends.
 - (d) See Appendix 6-2 – Approved Materials List for joint restraint methods, other than concrete blocking.
- (6) Check if system may require additional looping (i.e., eliminate dead end lines).
- (7) To assure compatibility with existing system, check with Public Works Department to determine hydraulic gradients.
- (8) Drawings shall reference distance to nearest existing valve and/or hydrant from new point of connection to existing water main.
- (9) Check with local jurisdiction for necessary permitting requirements.
- (10) Provide temporary 2-inch blow off assemblies for testing and disinfection of new water mains (where hydrants are not available). Place blowoff at high end of line, where possible.
- (11) Cap end of existing water lines to be abandoned as follows:
 - (a) Asbestos cement lines: use end cap coupling.
 - (b) Cast or ductile iron lines: use MJ cap or plug.
- (12) Minimum water main size
 - (a) 8 inch minimum when serving fire hydrants.
 - (b) 6 inch minimum may be used in localized conditions where fire hydrants are served by looped lines, subject to approval.
 - (c) 4 inch minimum shall be used to serve water to end of cul-de-sac when no future extension is required.
- (13) Pressure reducing station plans shall show location of pressure relief discharge pipe and discharge point of floor drain piping (drain to daylight). Pressure relief discharge pipe shall be shown at a location that will not be subject to damage or erosion during discharge of water.

- (14) All water vaults (water service, backflow assembly, pressure reducing station, etc.) shall include designs for floor drain piping draining to daylight, or if daylight is not feasible, to the storm system. Discharge point of vault floor drains shall be shown on the plan. Where vault floor drain cannot drain to daylight or the storm system, consult with the City during project design review to determine the best alternative.

Exception: Outside-installed Reduced Pressure Backflow Assemblies (RPBA) shall be installed in above-ground enclosures. The following drain requirements shall apply to enclosures. RPBA shall not be installed in vaults. Each enclosure design shall be as approved by the City. Floor drains for RPBA shall not connect to closed storm drain systems. All RPBA enclosures shall be provided with a bore sighted daylight drain. This bore sighted drain to daylight shall be clearly visible end to end, sized to meet the flow requirements of the RPBA relief vent.

- (15) Placement of surface appurtenances (manhole lids, water valve lids, etc.) in tire track of traffic lanes shall be avoided whenever possible. Meter vaults shall be located outside the sidewalk whenever possible.
- (16) Service connections or water utility distribution system piping shall not be used for grounding of electrical systems or for the maintenance, integrity or continuity of any grounding attachment or connection.
- (17) Manufacturer's certification of testing and accuracy shall be provided for all commercial meter installations.

C. Valving

- (1) 600 foot maximum distance between valves on distribution mains, except, in the Central Business District (CBD), maximum valve spacing shall be 200 feet.
- (2) Provide a valve at each end of an easement.
- (3) At water main intersections, valves shall be placed on four out of four legs at each cross, and three out of three legs at each tee (unless tapping an existing water main).
- (4) For all fire service connections greater than 3 inches in diameter, isolation valves shall be installed on all three legs of the tee. Tapping tees are not allowed for fire service connections greater than 2 inches in diameter.
- (5) For all domestic water service connections greater than 2 inches in diameter, isolation valves shall be installed on all legs of the tee. Tapping tees are not to be used for domestic service connections greater than 2 inches in diameter.
- (6) Additional valving may be required for area isolation.
- (7) Air/vacuum relief valves shall be installed at local high points in water main.

D. Fire Hydrants

The following information is provided as a guideline to be used during design. The final number of hydrants and their location shall be approved by the City Fire Marshal. All fire hydrants shall be pressure tested prior to issuance of building permits.

- (1) Guard posts are to be used only in parking lots when no curbs are present or in exposed areas in parking lots.
- (2) Fire line/hydrant run over 50 feet in length must be 8 inches (terminate with tee, plug and hydrant assembly).
- (3) Fire hydrant location:
 - (a) Single-family residential: Spacing = 500 feet apart. Coverage = 250 feet from front property line of the main body of a lot.
 - (b) Multi-family/commercial: As determined by the Fire Marshall.
 - (c) Exception: On arterial streets without residential access (through traffic only), maximum hydrant spacing shall be 1,000 feet.
 - (d) On dead-end streets, reduce single-family residential spacing shall be 400 feet.
- (4) 3-feet minimum clearance shall be provided around outside of hydrant for operation. Provide 5-foot horizontal clearance from the outside of the hydrant to concrete walls, structures, utility poles and above-ground electrical enclosures.
- (5) Where feasible, fire hydrants shall be installed on the same side of the street as the water main.
- (6) Private Fire Hydrants and Fire Protection Waterline:
 - (a) When a fire hydrant is to be installed on commercial, multi-family and institutional property, outside of the right-of-way or designated public water utility easements, and the fire hydrant is intended to provide fire protection for only that property, the fire hydrant and the waterline serving the fire hydrant shall be privately owned and maintained by the benefitting property owner. Such water line and fire hydrant are considered to part of the benefitting property's fire protection system and shall be designated on the approved construction drawings and the City's as-built drawings as "PRIVATE" or "PVT."
 - (b) The private water line that serves the private fire hydrant and/or the fire sprinkler system shall be owned by the benefitting property owner beginning immediately downstream of the valve where the private water line connects to the public water main. Connection shall include, at a minimum, a Double Check Valve Assembly (DCVA).
 - (c) The private fire hydrant and private water line (fire protection system) shall be designed and constructed in accordance with the fire hydrant and water main standards herein. No domestic, irrigation, or industrial water services shall be

connected to the fire protection system.

- (d) The benefitting property owner shall have the responsibility for all maintenance, repair, annual testing and flushing of the fire protection system in accordance with the fire system maintenance standards set forth by the Fire Marshall. At the time of permit issuance, the property owner/applicant shall execute an agreement acknowledging that the property owner/applicant shall be responsible for the proper maintenance and repair of the fire protection system.
- (e) If the fire protection system is contributing to a water quality issue, the property owner/applicant may be required to conduct more frequent flushing of the fire protection system or install a backflow assembly, at the discretion of the City.

E. Pipe Class, Protection, and Cover

- (1) Pipe shall be ductile iron, class 52.
- (2) Ductile iron pipe shall be encased in a steel or ductile iron casing when crossing under improvements where the ability to remove and replace pipe without disturbance to the improvement is needed. Casings are required when:
 - (a) Crossing under rockeries over 4-feet high.
 - (b) Crossing under retaining wall footings over 4-feet wide.
 - (c) Crossing under reinforced earth retaining walls (both wall and reinforcing material).

Casings shall extend a minimum of 5 feet past each edge of the improvement, or a distance equal to the depth of pipe whichever is greater. The carrier pipe shall be supported by casing spacers, where casing length exceeds 10 feet.

Minimum clearance between bottom of rockery and top of pipe or casing shall be 2 feet. The trench shall be backfilled with crushed rock.

- (3) Water main depth of cover:
 - (a) 3 feet minimum from final grade (see exception in 6.03 E.(4)(d) below).
 - (b) 6 feet maximum from final grade.
- (4) Building setback requirements:
 - (a) 5 feet minimum from covered parking to water main.
 - (b) 10 feet minimum from building (and retaining walls) to water main.
 - (c) 20 feet minimum easement shall be provided between buildings.
 - (d) When passing between buildings which are 25 feet apart or less, ductile iron pipe shall be installed with 2 feet of pipe cover (5 feet beyond the limits of each

building).

- (5) All pipe, fittings and hardware immersed inside water reservoirs shall be stainless steel.

F. Clearances/Other Utilities

- (1) All clearances listed below are from edge-to-edge of each pipe.
- (2) Water services and sewer stubs shall have at least 5-foot horizontal separation.
- (3) Check for crossing or parallel utilities. Maintain minimum vertical and horizontal clearances. Avoid crossing at highly acute angles (smallest angle measure between utilities should be between 45 and 90 degrees).
- (4) At points where thrust blocking is required, minimum clearance between the concrete blocking and other buried utilities or structures shall be 5'.
- (5) Horizontal clearances from water main:
- | | |
|---------------------------|---------|
| • Cable TV | 5 feet |
| • Gas | 5 feet |
| • Power | 5 feet |
| • Storm | 5 feet |
| • Sanitary | 10 feet |
| • Telephone, Fiber Optics | 5 feet |
- (6) Vertical clearances from water main:
- | | |
|---------------------------|--------|
| • Cable TV | 1 foot |
| • Gas | 1 foot |
| • Power | 1 foot |
| • Storm | 1 foot |
| • Sanitary | 2 feet |
| • Telephone, Fiber Optics | 1 foot |
- (7) Where water main crosses above or below sanitary sewer, one full length of water pipe shall be used with the pipes centered for maximum joint separation. Washington Department of Ecology criteria will also apply.
- (8) Send letter and preliminary plan to existing utilities to inform them of new construction. Request as-built information and incorporate into plans. At minimum the following utilities should be contacted:
- | |
|---------------------------|
| • Cable Television |
| • Natural Gas |
| • Power |
| • Sanitary Sewer |
| • Storm Drainage |
| • Telephone, Fiber Optics |

- (9) Draft plans shall be sent to the above listed utilities to allow coordination of projects.

G. Slopes

- (1) Vertical bends shall be used when joint deflection would exceed one-half of pipe manufacturer's recommended maximum deflection.
- (2) Pipe joints shall be restrained where slopes are 20 percent or greater. Joint restraint on slopes shall be "megalug" restrainer for mechanical joint fittings and tie rod/retainer clamp assemblies for DI push-on joints, or other methods from approved materials list.
- (3) Where pipe are proposed on hills or steep slopes, the Director shall determine if the pipe location and configuration will be allowed. If allowed, the Developer's engineer shall propose design details reasonably acceptable to the Director for permanently securing and anchoring the pipe.

H. Connections to Existing System

- (1) When authorized by the City, water mains shall be tapped using stainless steel, full-bodied cast iron Mueller-type tapping tee, or ductile iron mechanical joint tapping tees with outlet flange.
- (2) Connections to existing mains 8 inches and larger shall be via a wet tap unless otherwise approved by the City. If a wet tap is authorized, it shall be a minimum of one pipe size smaller than the existing main.
- (3) Size-on-size tapping tees are not allowed, unless a shell cutter, one size smaller than the existing main, is used.
- (4) Connections to existing mains smaller than 8-inch diameter shall be made by cutting in a tee, unless otherwise approved by the City.
- (5) Where cut-in connection is made for all commercial, multi-family, institutional and school connections, always install two in-line gate valves.
- (6) In the Central Business District (CBD), 3-inch, 4-inch and 6-inch domestic service and fire sprinkler lines shall connect to the existing water main with 8-inch pipe and 8-inch gate valve sizes. Extend 8-inch pipe from water main to vault before reducing to service/fire line size. No tapping tees or sleeves are allowed.
- (7) Any property owner who plans to demolish or remove any structure connected to the public water system shall notify the City and complete a Utility Abandonment form prior to the commencement of such work. The City will determine whether the water service can be reused (if sufficiently sized for the new use). If the City determines that the water service cannot be reused, the property owner must pay for abandonment or upgrade of the water service through a water service application or through a water system extension agreement for new site improvements.
- (8) Do not connect water system to private sewer pump stations.

I. Easements

- (1) Show easements on plans and identify width.
- (2) Show easements on all private property. If easement is defined as a constant width on each side of water main, then show a segment of the easement and label as “Typical” (typ).
- (3) All easements shall be a minimum of 15 feet in width, unless otherwise approved or required by the City.
- (4) A 20-foot minimum easement shall be provided between buildings.
- (5) Also see Section 6.03 E(4). “Building Setback Requirements.”
- (6) Easement Documentation Requirements:
 - (a) All easements shall be shown on the project plans and identified as “private” or “public”, together with the width dimension and utility use, (e.g., 20-foot Public Water Easement).
 - (b) All documents for public easements shall conform to these Standards, will be provided on the City’s easement template and shall comply with King County Recorder’s Office formatting requirements. Include the King County tax parcel number(s), site address, owner names and site legal description. All pages must be numbered.
 - (c) Easements shall be dedicated to and approved by the City prior to acceptance of a public water system. The Grantee shall be the “City of North Bend, a Washington municipal corporation, its heirs, successors and assigns”. The City may require indemnification agreements to hold the City harmless where maintenance access across private property is deemed necessary.
 - (d) The description contained within the easement document shall be prepared and stamped by a land surveyor licensed in the State of Washington. The description shall be identified as an Exhibit, together with the title of the utility use, (e.g., Permanent Public Water Utility Easement). The description shall be clearly written and referenced to the underlying property. The description shall be accompanied by an additional graphic Exhibit which depicts a scaled drawing of the easement location relative to the subject parcel.
 - (e) Off-site easements shall be delivered to the City prior to issuing a Notification to Proceed with construction. Submittal of on-site easements may be delayed until completion of construction requirements.
 - (f) Bill of Sale for all utility facilities appurtenant to public easements or tracts shall be given to the City.

J. Services

- (1) Minimum allowable service size shall be 1" x 1". Check that minimum pressure can be maintained when service is flowing at anticipated maximum levels. If friction losses will cause pressure at building to drop below minimum, increase service line size as necessary to raise pressure.
- (2) Show location of water services on plan and indicate size. Sizes shall be determined by the Developer per the Uniform Plumbing Code. **Minimum service size for all commercial and multi-family customers is 1" x 1".**
- (3) Fire and irrigation lines shall be by separate water main connection and service. Single family domestic services are not required to have separate water main connections.
- (4) Static service pressures at ground floor elevation shall be determined at all lots/buildings to ensure compliance with system pressure standards.
- (5) Plan shall identify lots/buildings where builder/owner should install individual pressure reducing valves. PRVs are required on customer side of service lines (after water meter box) when service pressures exceed 80 psi.
- (6) 3-inch through 8-inch service installations shall include full-size bypass per Standard Details.
- (7) For commercial and multi-family customers, domestic services, 1-1/2 inch and larger, that connect to an existing water main with a cut-in tee, shall include a gate valve on each leg of the tee. If the building is served by a second full-size service, that can remain in service while the water main supplying the other service is shut down, only one mainline and one branch-line valve will be required with the cut-in tee connection.
- (8) All new mixed-use buildings shall have separate meters for the multi-family portion and the commercial portion of the building.
- (9) If a customer needs a larger size service, the customer is responsible for up size, up-size charges, and abandonment of existing connection.

K. Backflow Prevention

Per 13.16 NBMC, irrigation systems, fire sprinkler systems, and other water uses which may or will cause the contamination of the potable water supply by backflow, shall be required to install approved backflow prevention assemblies, and/or otherwise meet the requirements of the WAC 246-290-490 "Cross Connection Control Regulation in Washington State," and the recommendations of the PNWS-AWWA Cross Connection Control Manual, latest edition. Requirements may include premise isolation, point of use protection, or a combination. All backflow prevention assemblies installed shall be on the Washington State DOH list of approved backflow prevention assemblies, most recent edition at the time of installation, and shall be installed as approved by Washington State Dept. of Health and as shown in the Standard Details.

Reduced Pressure Principle Backflow Assembly (RPBA) installations that differ from the Standard Details W-46, W-47, and W-48 must be approved by the Director, and will be reviewed on a case-by-case basis to ensure current minimum requirements for installation and freeze point

protection are met.

Satisfactory testing shall be completed upon installation, repair, or relocation of all backflow assemblies, and annually thereafter. A completed test report must be submitted to the City or plumbing inspector of record prior to final acceptance.

Fire sprinkler system connections to the City's water system shall be owned and maintained by the property owner, beginning immediately downstream of the gate valve where the system connects to the City's water main.

The backflow prevention assembly on fire system connections shall be located as close to the serving water main as possible, no more than 50 feet from the water main without prior City approval, either on the owner's property or an easement dedicated to the owner's property. A Double Check Detector Assembly is required on all fire lines, other than privately owned fire hydrants, that are 3 inches and larger (applies to both interior and exterior assemblies).

Interior backflow prevention, when permitted, must meet the Uniform Plumbing Code requirements as administered by the Building Division. Such backflow prevention must also meet the requirements of the Public Works Department.

Multi-family projects that have eight or more units and that require a double check valve assembly are strongly recommended to provide a bypass with equal backflow prevention to avoid loss of service during maintenance and repair.

Premise isolation at the water meter by an approved air gap or a reduced pressure backflow assembly (RPBA) is required for all sites utilizing an auxiliary supply (i.e., on-site well, pond, etc.) regardless of whether there is a cross connection between the auxiliary and public water system.

All multiple use buildings are required to have a reduced pressure backflow assembly (RPBA) for premise isolation.

6.04 Water Materials

A. General

All materials shall be new and undamaged. The same manufacturer of each item shall be used throughout the work.

Where reference is made to other specifications, it shall be the latest revision at the time of construction, except as noted on the plans or herein.

All materials not specifically referenced shall comply with applicable sections of ANSI, ASTM, AWWA or the APWA/WSDOT Standard Specifications.

Approved manufacturers and model numbers of various materials are listed in Appendix 6-2 of these Engineering Standards. When specific manufacturers or models are listed, no substitutions will be allowed without prior approval by the City.

B. Water Pipe

Water pipe shall be ductile iron pipe, minimum thickness Class 52, cement-lined unless otherwise specified and shall conform to ANSI/AWWA C151/A21.51 or as shown on plans.

Rubber gasket pipe joints to be push-on-joint (Tyton) or mechanical joint (M.J.) in accordance with ANSI/AWWA C111/A21.11, unless otherwise specified.

Flanged joints shall conform to ANSI B16.1, class 125 drilling pattern, rated for 250 psi working pressure.

Standard thickness cement lining shall be in accordance with ANSI/AWWA C104/A21.4.

The Contractor shall furnish certification from the manufacturer of the pipe and gasket being supplied that the inspection and all of the specified tests have been made and the results thereof comply with the requirements of the above referenced standards.

C. Polyethylene Encasement

Polyethylene encasement shall be eight mil tube or sheet and shall be furnished with all ductile iron pipe when corrosive soil conditions are present. Materials shall comply with ANSI/AWWA C105/A21.5.

D. Fittings

All water main fittings shall be ductile iron, short body, cement lined, and for pressure rating of 350 psi for mechanical joint fittings and 250 psi for flange joint fittings, unless otherwise noted. Metal thickness and manufacturing process shall conform to applicable portions of ANSI/AWWA C110/A21.10. Mechanical joint, ductile iron, compact fittings 24 inches and less shall be in accordance with ANSI/AWWA C153/A21.53. Flanged fittings, cast or ductile iron, shall conform to ANSI B16.1, class 125 drilling pattern.

Standard cement lining shall be in accordance with ANSI/AWWA C104/A21.4.

Rubber gaskets for push-on-joints (Tyton) or mechanical joint (M.J.) shall be in accordance with ANSI/AWWA C111/A21.11.

Gasket material for flanges shall be neoprene, Buna N, chlorinated butyl, or cloth-inserted rubber.

Type of connections shall be specified as push-on joint (Tyton), mechanical joint (M.J.), plain end (P.E.), flanged (FL), and threaded.

E. Galvanized Iron Pipe

Where galvanized iron pipe is specified, the pipe shall be standard weight, Schedule 40, steel pipe per Standard Specification for black and hot-dipped, zinc-coated (galvanized) welded and seamless steel pipe for ordinary uses (ASTM A-120). Fittings shall be screwed malleable iron galvanized per ANSI B16.3. Galvanized pipe shall be used only for dry pipe in pressure relief vacuum breaker assemblies.

F. Couplings

Flexible coupling and transition coupling cast components shall be ductile iron. Center rings and end rings shall be ductile iron in accordance with ASTM 536-80, Grade 65-45-12.

Gasket material shall be virgin SBR in accordance with ASTM D2000 MBA 710.

Bolts shall be high strength, low alloy steel trackhead bolts with national course rolled thread and heavy hex nuts. Steel shall meet ANSI/AWWA C111/A21.11 composition specifications.

G. Adapters

All flange by mechanical joint (FL x MJ) adapters shall be ductile iron.

H. Bolts in Piping

Bolts shall be malleable iron, Cor-ten, or stainless steel.

Bolts and nuts for flanged pipe and fittings shall conform in size and length with ANSI/AWWA C115/A21.15. T-bolts shall be malleable iron or Cor-ten in accordance with ANSI/AWWA C111/A21.11. Stainless steel bolts shall meet the requirements of ASTM A-307, Grade A. Shackle rods shall be stainless steel all thread 316SS.

Stainless steel nuts, bolts and washers shall be type 316SS.

I. Flange Gaskets

Gasket Material shall be neoprene, Buna N, chlorinated butyl, or cloth inserted rubber.

J. Gate Valve

The minimum requirements for all gate valves shall, in design, material and workmanship, conform to the following Standards:

- 2" to 12" Cast Iron: AWWA C-509
- 4" to 12" Ductile Iron: AWWA C-515
- 14" to 24" Ductile Iron: AWWA C-515
- 30" to 36" Ductile Iron: AWWA C-515
- 42" to 48" Ductile Iron: AWWA C-515

Buried gate valves shall be iron body, bronze mounted, resilient seat, and non-rising stem, suitable for installation with the type and class of pipe being installed. Ends to be as specified. Operating stems shall be equipped with standard 2-inch operation nut, and O-ring stem seals. Valves not buried shall be as specified.

K. Valve Box

Valve Box shall be cast iron, two-piece, 8-inch or 18-inch slip type top section with flange located within 3 inches of top, with 24-inch bottom section (and extension, if required), equal to RICH - Seattle Type. Valve box lid shall be cast iron, 3-inches deep, with recessed lifting handle,

and the word “WATER” or “WW” cast into it.

Valve box paving risers shall be cast iron suitable for H-20 traffic loading. The riser shall have four lugs or a flange around the perimeter, and be sized to fit into a RICH - Seattle Type valve box top.

Valve box adjusting sleeves (for use in unimproved areas) shall be cast iron, 12" long.

All castings shall be coated with asphaltic varnish.

L. Valve Operating Nut Extension

Use where valves are installed more than 3 feet below finished grade. Extensions are to be a minimum of 1 foot with only one extension per valve. See Standard Detail.

M. Butterfly Valve

Butterfly valves shall conform to ANSI/AWWA C504, Class 150B. Valves in chambers shall have a manual handwheel operation. Buried valves shall have a stem extension with AWWA 2-inch operating nut and suitable valve box. Butterfly valves will be required for all lines 12 inches or larger.

N. Check Valve

Check valves shall be for 150 psi working pressure, unless otherwise specified. Valve shall have adjustable tension lever and spring to provide non-slamming action under all conditions unless otherwise specified.

O. Air and Vacuum Release Valve

Combination Air Valves shall be of the single housing style that combines the operating features of both an Air/Vacuum and Air Release Valve.

The Air/Vacuum portion shall automatically exhaust air during the filling of the pipeline and automatically allow air to re-enter the pipeline when the internal pressure of the pipeline approaches a negative value due to column separation, draining of the pipeline, power outage, pipeline break, etc.

The Air Release portion shall automatically release small pockets of air from the pipeline while the pipeline is in operation and under pressure, and during filling of the pipeline.

The Combination Air Valve shall have minimum 1-inch NPT inlet and outlet connections and be able to withstand a working pressure of 300 psi.

The valve body and cover shall be cast iron with stainless steel float.

P. Pressure Reducing Station

Unless otherwise shown on the construction plans, a standard pressure reducing station shall have a 6-inch pressure reducing valve with flanged ends and a bypass with a 2-inch pressure reducing valve with threaded ends. Pressure reducing valves shall have opening/closing speed controls,

epoxy coated body, and valve position indicator. Pressure reducing valves and pressure relief valves shall be equipped with stainless steel trim (seat, stem, and cover bearing). Pilot controls shall be on the side of the pressure reducing valve facing vault interior. Each pressure reducing valve shall include two 3/8-inch test cocks located on the opposite side of valve body from the pilot controls (one at inlet and one at outlet end of valve).

Strainers shall be installed on the inlet side of each pressure reducing valve with bronze ball valve sized to correspond with the strainer blowoff outlet size. A 2-inch pressure relief valve with threaded ends shall be installed on the discharge side of the 2-inch pressure reducing valve line and vented to atmosphere as shown on the plans.

The pressure reducing valve shall maintain a constant downstream pressure regardless of varying inlet pressure. The valve shall be a hydraulically operated diaphragm-actuated, globe valve. The pilot control shall be a direct-acting, adjustable, spring loaded, normally open, diaphragm valve, designed to permit flow when controlled pressure is less than the spring setting. The control system shall include a fixed orifice.

The pressure relief valve shall maintain constant upstream pressure by by-passing or relieving excess pressure, and shall maintain close pressure limits without causing surges. The main valve shall be hydraulically operated, diaphragm-actuated, globe valve. The pilot control shall be a direct acting, adjustable, spring loaded, diaphragm valve, designed to permit flow when controlling pressure exceeds spring setting. The pilot control system shall operate such that as excess line pressure is dissipated the main valve shall gradually close to a positive, drip-tight seating.

All diaphragm-actuated valves shall contain a resilient, synthetic rubber disc, having a rectangular cross-section, contained on three and one-half sides by a disc retainer and forming a tight seal against a single removable seat insert. The diaphragm assembly containing a valve stem shall be fully guided at both ends by a bearing in the valve cover and an integral bearing in the valve seat. This diaphragm assembly shall be the only moving part and shall form a sealed chamber in the upper portion of the valve, separating operating pressure from line pressure. The diaphragm shall consist of nylon fabric bonded with synthetic rubber and shall not be used as a seating surface. Packing glands and/or stuffing boxes are not permitted and there shall be no pistons operating the valve or pilot controls. All necessary repairs shall be possible without removing the valve from the line.

Strainers 2 inches and smaller shall be iron bodied "Y" type equal in size to corresponding pressure reducing valve. Strainers 3 inches and larger shall be Cla-Val X43H "H" style strainers. Strainer shall feature bolted cover machined to hold screen securely in place and tapped F.I.P.T. for blowoff outlet. Screens 2 inches and smaller shall be constructed from perforated stainless steel. Main-line strainer shall have flanged-ends and bypass strainer shall have threaded ends.

The vault shall be equal to Utility Vault Co. model 777-LA with cover as specified in the Standard Detail. Vault exterior shall be coated with a single component, moisture curing urethane with micaceous iron oxide applied at 5 to 7 micron dry film thickness per coat, two coats minimum, Sherwin-Williams Corothane 1-Coal Tar, or equal. Vault interior shall not be coated.

Q. Lids, Hatches, and Covers – Slip Resistance

Metal lids, hatches and access covers shall be constructed with a non-slip treatment having a coefficient of friction between 0.6 and 1.0 wet, as determined by ASTM C1028-89. Lids, hatches and access covers located on slopes of 4 percent or greater shall have a coefficient of friction

between 0.8 and 1.0 wet, as determined by ASTM C1028-89. Prior to installation, the Contractor shall supply the Engineer with a shop drawing of the appurtenance, specifying a coefficient of friction meeting or exceeding the above requirement.

R. Fire Hydrant

Fire Hydrants shall have a minimum valve opening of 5-1/4-inch "O" ring stem seal, two 2-1/2-inch N.S.T. hose nozzle connections, and one 4-inch pumper connection with City of Seattle standard threads. The shoe connection, foot valve connection, and all joints between shall be six-inch mechanical joint with lugs. The operating and port cap nuts are 1-1/4-inch pentagonal. Hydrants shall be as shown in the approved materials list, with no exceptions unless approved by the Engineer. All hydrants shall be of the "Traffic Model" type with approved break-away features and brass to brass sub-seat. Shackle rods are not permitted on hydrants.

The portion of the public fire hydrant that is above ground shall be painted with two coats of Rust-Oleum, Krylon, or Sherwin-Williams Safety Yellow paint as set forth by the City of North Bend Fire Marshall.

The portion of the private fire hydrant that is above ground shall be painted with two coats of Rust-Oleum, Krylon, or Sherwin-Williams Red paint as set forth by the City of North Bend Fire Marshall.

S. Hydrant Guard Posts

Hydrant guard posts shall be 6-inch-diameter concrete filled ductile iron pipe class 52, 6-feet long. Pipe shall be painted with two coats of Rust-Oleum, Krylon, or Sherwin Wiliams Safety Yellow paint.

T. Meter Setter

Meter setters shall have double purpose couplings, unless otherwise specified, and angle meter valve with drilled wings for padlock, 12-inches high. The angle copper setter for the size meter to be installed, see Standard Details.

1-1/2-inch meter setters shall have vertical inlet and outlet tees with 1-inch lateral bypass, flanged ball meter valves on inlet and outlet, ball valve on bypass, and padlock wings on all valves, see Standard Details.

2-inch meter setters shall have vertical inlet and outlet tees with 1-inch lateral bypass, flanged ball meter valve on inlet, flanged key meter valve on outlet, ball valve on bypass, and padlock wings on all valves, see Standard Details.

U. Corporation Stop

Corporation stops shall be brass in accordance with AWWA Standard C800 with AWWA tapered thread (CC) inlet by compression fitting for copper outlet, complete with coupling nut for copper service.

Corporation stops for 1-inch, 1-1/2-inch, and 2-inch tap shall be the ball valve type.

V. Meter Box

Cast iron, steel and plastic composite meter boxes with non-slip ductile iron lid as specified in the Standard Details. Meters shall be centered in box.

W. Plastic Service Pipe

All joints with plastic pipe shall be made utilizing stainless steel inserts along with couplings or adapters.

Materials: Pipe shall meet the requirements of the standard specifications of Section 9-30.6(3)B and shall be Pure Blue Core as manufactured by JM Eagle or equal. Pipe shall be manufactured from ultrahigh molecular weight, high density polyethylene resin PE 3408. It shall meet the requirements of AWWA C901 and ASTM D-2239 or ASTM D-3727.

Marking: Pipe shall be permanently imprinted with manufacturer's brand name, pipe size, product standard (pipe only), identification of the NSF approval, ASTM specification, recommended working pressure, and production code. Letters shall be at least 3/16-inch high and should appear on the pipe at intervals no less than every 24 inches.

Dimensions: Pipe dimensions and tolerances shall correspond with the values listed in ASTM-D-2239 for flexible plastic pipe with a standard dimension ratio (SDR) of 7. I.P.S.

Working Pressure: Pipe shall have working pressure of 200 psi at 73.4 degrees F.

X. Pipe Insulation

All pipe for above ground service shall have 2-inch-thick foam insulation with an aluminum jacket. Foam insulation and aluminum jacket shall conform to the following:

Foam insulation shall be closed cell polystyrene foam manufactured by extrusion process. Foam insulation shall be odorless, chemically inert, with no food value and shall be resistant to ground chemicals and microorganism. Foam insulation shall conform to the following properties:

PROPERTIES	ASTM TEST	AVERAGE
Thermal Conductivity "K" Factor BTU HR./SQ. FT./+F/IN. Mean Temp. 40+	C518-70 & C177-63	0.23
Moisture Resistance Water Absorption % By Volume	D2842-69	0.8
Water Vapor Transmission (Perm-Inch)	C355-64	0.9
Physical Density (lb./cu. ft.)	C303-56	1.8
Compressive Strength (PSI) Perpendicular to Board Face (5% Deflection or Yield)	D1621-64	40

Aluminum jacketing shall be manufactured from Type 3003 or 5005 alloy; temper of H-14 gauge 0.016.

Y. Concrete Bedding and Blocking

Bedding, blocking, encasement, or slope anchor concrete shall be mixed from materials acceptable to the Engineer and shall have a 30-day compressive strength of not less than 2,500 psi. The mix shall contain five sacks of cement per cubic yard and shall be of such consistency that the slump is between 1 inch and 5 inches. All concrete shall be mechanically mixed. Blocks shall be left open for inspection.

Z. Joint Restraint

Joint restraint methods shall be as per the Approved Materials list. Where shackle restraint is used, all parts shall be stainless steel (All Thread 316SS), along with 316SS stainless steel hardware. Stainless steel shackle restraints do not require painting.

AA. Reduced Pressure Backflow Assembly

All Reduced Pressure Backflow Assemblies shall be as listed on the most current copy of “Backflow Prevention Assemblies Approved for Installation in Washington State,” published by Washington State Department of Health (D.O.H.). The assembly shall include a tightly closing resilient seated shut-off valve on each end of the body and each assembly shall be fitted with four properly located resilient seated test cocks. All other appurtenances shall be as shown in the Standard Detail.

BB. Reduced Pressure Detector Assembly

This assembly shall include a line-sized D.O.H. approved (listed on the most current copy of “Backflow Prevention Assemblies Approved for Installation in Washington State” published by Washington State D.O.H.) Reduced Pressure Backflow Assembly with a parallel 3/4-inch meter and 3/4-inch D.O.H. approved Reduced Pressure Backflow Assembly. Each assembly shall include a tightly closing resilient seated shutoff valve on each end of the body and each assembly shall be fitted with four properly located resilient seated test cocks. All other appurtenances shall be as shown in the Standard Detail.

CC. Double Check Valve Assembly

All Double Check Valve Assemblies shall be as listed on the most current copy of “Backflow Prevention Assemblies Approved for Installation in Washington State” published by Washington State D.O.H. The assembly shall include a tightly closing resilient seated shutoff valve on each end of the body and each assembly shall be fitted with four properly located resilient seated test cocks. All other appurtenances shall be as shown in the Standard Detail.

DD. Double Check Detector Assembly

This assembly shall include a line sized D.O.H. approved (listed on the most current copy of “Backflow Prevention Assemblies Approved for Installation in Washington State” published by Washington State D.O.H.) Double Check Valve Assembly with a parallel 3/4-inch meter and 3/4-inch D.O.H. approved double check Valve Assembly. Each assembly shall include a tightly closing resilient seated shutoff valve on each end of the body and each assembly shall be fitted with four properly located resilient seated test-cocks. All other appurtenances shall be as shown in the Standard Detail.

EE. Backflow Assembly Resilient Seated Shut-Off Valves

Each valve shall be marked with model number with designation of resilient seat; such as “RS” or “R,” which must be cast, molded, or affixed onto the body or bonnet of the valve. All ferrous-bodied valves shall be coated with a minimum of 4 mils of epoxy or equivalent polymerized coating. 2 inch and smaller R.P.B.A.s and D.C.V.A.s shall use ball valves, and all 2-1/2 inch and larger R.P.B.A.s and D.C.V.A.s shall use resilient seated gate valves for domestic supply and resilient seated O.S. and Y. valves for fire lines.

The minimum requirements for all resilient seated gate valves shall, in design, material and workmanship, conform to the standards of AWWA C509.

FF. Barrier Fence

Barrier Mesh shall be manufactured from Low Density Polyethylene, stabilized against UV degradation, and with a special selection of pigments to ensure optimum visual performance under harsh weather conditions. Barrier Mesh shall be corrosion-free and resistant to salt water and most chemicals.

Barrier Mesh shall present a visual target area of approximately 0.5 square meter per square meter of mesh.

GG. Bedding and Backfill

(1) Pipe Bedding Materials

For PVC and Ductile Iron pipe, bedding for water mains shall be “pea gravel” meeting the specifications for a relatively round, processed, washed rock with:

100% passing the 3/8-inch screen
0% passing the #4 screen

If necessary on steep pipe runs, the pipe trench shall be constructed with trench dams of clay or CDF to prevent the migration of water through the pea gravel. Water collected in the trench shall be piped to a suitable discharge location.

For convenience, crushed rock bedding conforming to crushed surfacing top course material of Section 9-03.9(3) Crushed Surfacing Top Course of the Standard Specifications may also be used as bedding material for pipe.

(2) Trench Backfill Materials

For transverse trenches (perpendicular to the roadway centerline) in paved areas, trench backfill conforming to Section 9-03.9(3) Crushed Surfacing Base Course of the Standard Specifications shall be used. In paved areas, if a full pavement restoration is not being constructed, trench shall be backfilled with CDF to within 12 inches of the finished surface. The remaining 12 inches shall be restored with crushed surfacing and HMA.

For longitudinal trenches (trenches parallel to the centerline of the roadway) in paved areas, backfill material (4 feet and deeper below finished grade) shall conform to Section 9-03.14(1) Gravel Borrow of the Standard Specifications. The Contractor may request to

use excavated material as trench backfill and must demonstrate to the Engineer that the suitable excavated material conforms to Section 9-03.14(1) Gravel Borrow of the Standard Specifications and proper compaction levels can be achieved. Admixtures and/or additives may not be used to modify the moisture content in order to meet compaction specifications.

The top 4 feet of longitudinal trenches in paved areas shall be backfilled with crushed rock conforming to Section 9-03.9(3) Crushed Surfacing Base Course of the Standard Specifications.

In unpaved areas, trench backfill material shall conform to Section 9-03.14(1) Gravel Borrow of the Standard Specifications. The Contractor may request to use excavated material as trench backfill when it has been determined by the Engineer to be suitable and conforms to Section 9-03.14(1) Gravel Borrow of the Standard Specifications and proper compaction levels can be achieved.

(3) Structure Backfill Materials

In paved areas, backfill material (4 feet and deeper below finished grade) shall conform to Section 9-03.14(1) Gravel Borrow of the Standard Specifications. The Contractor may request to use excavated material as trench backfill when it has been determined by the Engineer to be suitable and conforms to Section 9-03.14(1) Gravel Borrow of the Standard Specifications and proper compaction levels can be achieved.

The top 4 feet around structures shall be backfilled with crushed rock conforming to Section 9-03.9(3) Crushed Surfacing - Top Course of the Standard Specifications.

In unpaved areas, structure backfill material shall conform to Section 9-03.14(1) Gravel Borrow of the Standard Specifications. The Contractor may request to use excavated material as structure backfill when it has been determined by the Engineer to be suitable and conforms to Section 9-03.14(1) Gravel Borrow of the Standard Specifications and proper compaction levels can be achieved.

(4) Foundation Gravel Materials

Foundation gravel for structures shall consist of one of the following aggregates as set forth in the Standard Specifications:

- | | | |
|---|--|------------|
| · | Ballast | 9-03.9(1) |
| · | Permeable Ballast | 9-03.9(2) |
| · | Gravel Backfill for Foundations (Class A or B) | 9-03.12(1) |
| · | Foundation Material Class A and Class B | 9-03.17 |

(5) Controlled Density Fill Materials

Controlled density fill (CDF, aka flowable fill) shall be a mixture of Portland Cement, admixture (optional), Fly Ash, aggregates and water. It shall be proportioned to provide a grout, non-segregating, free flowing, self-consolidating and excavatable material that will result in a non-settling fill which has measurable unconfined compressive strength. CDF shall meet the standard specifications of Section 2-09.3(1)E.

HH. Steel Casing

Steel casing shall be black steel pipe conforming to ASTM A53. Before installation, coat casing exterior with shop-applied anticorrosive coating conforming to AWWA C210. Minimum coating thickness shall be 16 mils dry film thickness (DFT); however, thickness shall not exceed manufacturer's recommended thickness. Coating type shall be a polyamide epoxy-coal tar equal to Tnemec Hi-Build Tnemec-Tar, Series 46H-413.

Casing wall thickness shall be 0.250 inch for casings 24 inches or less in diameter and 0.375 inch for casings over 24 inches in diameter.

Carrier pipe for water shall be Ductile Iron, Class 52.

II. Casing Spacer

Casing spacer shell shall be manufactured in two pieces from heavy gauge T-304 stainless steel or 14-gauge hot rolled pickled steel joined with ribbed flanges. The shell shall be lined with a PVC liner 0.090 inch thick with 85-90 durometer.

Carbon steel casing spacer shell and risers shall be coated with a heat fused PolyVinyl chloride coating, or hot-dip galvanized.

PolyVinyl Chloride Coating Specifications:

•	Durometer - Shore A2 (10 Sec.) (ASTM D1706-61T)	-	80
•	Max. operating temperature (constant)	-	150° (65°C)
•	Electrical properties (ASTM D149-61)(short time .010")	-	1380 V/Mil
•	Resistance:		
○	Salt spray (ASTM B117)	-	Excellent
○	Acids	-	Good
○	Alkalies	-	Good

All nuts and bolts shall be 18-8 stainless steel.

Runners shall be supported by risers made from heavy gauge T-304 stainless steel or 12 gauge hot rolled pickled steel. Runners shall be ultra high molecular weight polymer with high resistance to abrasion and sliding wear.

TYPICAL DATA			
PROPERTY	ASTM METHOD	UNITS	VALUE
Specific Gravity	D-792	gm/cc	.934
Tensile Strength (Break)	D-638	PSI	3500
Elongation (Break)	D-638	%	380
Izod Impact	D-256	Ft.lbs/in. of notch	No break
Hardness	D-2240	Shore D	67
Coefficient of Friction	D-1894	-	0.11 - 0.13
Heat Distortion Temp. 66 psi	D-648	C	88
Coefficient of Thermal Expansion	D-696	F-1	5.5 x 10-5
ABRASION CHARACTERISTICS			
Taber Abrasion	D-1044	Mg/loss	N
Sand Slurry*			7

*Sand slurry condition - 7 hours in one part sand/ one part water slurry at 1,725 rpm.

Carbon steel - 100, Hifax - 15. The lower the value, the more resistant to abrasion.

Casing spacers shall be “center positioning” type. Height of risers and runners combined shall be sufficient to keep the carrier pipe bell, couplings, or fittings at least 0.75 inch from the casing pipe wall at all times and provide at least 1-inch clearance between runners and top of casing wall, to prevent jamming during installation.

6.05 Water Methods of Construction

A. General Construction Requirements

The improvements shall be constructed as shown on the plans and in accordance with these Standards, Standard Details, and Standard Specifications. Manufacturer’s equipment shall be installed in compliance with specifications of the manufacturer, except where a higher quality of workmanship is required by the plans and specifications. All materials and work shall be in strict accordance with any applicable regulations of the State, County and local authorities. The Contractor shall arrange for such inspection by these agencies as may be required and shall submit evidence of their approval, if requested by the Engineer.

(1) Alignment & Staking

All work done under a Project shall be to the lines and grades shown on the plans or to approved revisions.

(2) Inspections & Tests

- (a) The Engineer shall, at all times, have access to the work for the purpose of inspecting and testing, and the Contractor shall provide proper facilities for such access and such inspection and testing.
- (b) If any work is covered up without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered for inspection.

- (c) Before a performance test is to be observed by the Engineer the Contractor shall make whatever preliminary tests are necessary to assure that the material and/or equipment are in accordance with the plans and specifications.
- (d) Written notice of deficiencies, adequately describing the same, shall be given to the Contractor upon completion of each inspection and the Contractor shall correct such deficiencies within seven days of the notice and before final inspection will be made by the Engineer, unless otherwise approved.

B. Surface Water Quality

The Contractor is required to implement water pollution controls and maintain these until the project is accepted by the City. The Contractor shall familiarize himself with the requirement of the King County Surface Water Design Manual (KCSWDM).

The following list of requirements is a summary of the construction activity requirements of the KCSWDM and is provided as a guide to the Contractor. The City may have additional requirements with which the Contractor shall comply.

(1) Chlorine Residual from Water Main Testing or Disinfection

Water with chlorine residual shall be disposed of through sanitary sewers, storing and aerating or percolation into the ground. Water containing a chlorine residual shall not be disposed of into the storm drainage system or any waterway.

(2) Oil and Chemical Storage and Handling

Storage area shall be diked. No disposal of oil products or waste on the site, including oil filters. The Contractor shall provide a waste oil disposal tank, if needed.

C. Laying Ductile Iron Pipe

Work shall be accomplished in accordance with AWWA Standard C600 and the manufacturer's recommendation.

The bottom of the trench shall be finished to grade in such a manner that the pipe will have bearing along the entire length of the barrel. Bolts on mechanical pipe and fittings shall be tightened uniformly with a "Torque" wrench which measures the torque for mechanical joints shall be as follows:

2" - 3" pipe sizes 5/8" Bolts	40 - 60 ft-lbs torque
4" - 24" pipe size 3/4" Bolts	60 - 90 ft-lbs torque

Installation of push-on joint (Tyton) pipe shall be in accordance with the manufacturer's instructions. All buried ductile iron pipe and adjacent valves and fittings shall be encased with 8-mil polyethylene.

Pipe shall not be located below soil nails. If the pipe is located above a soil nail, a minimum of 5 feet of clearance is required.

D. Laying Galvanized Iron Pipe

The galvanized iron pipe, valves and fittings shall be threaded.

Joints shall be made in accordance with good plumbing practice. Threads shall be coated with Teflon tape before connecting.

Pipe shall not be located below soil nails. If the pipe is located above a soil nail, a minimum of 5 feet of clearance is required.

E. Fire Hydrant Installation

Fire hydrants shall be set as shown in the Standard Details and AWWA Standard C600. Hydrant and the gate valve must have lugs. The tee on the main line shall not be considered as part of the assembly. The hydrant run shall be restrained with MEGALUG restrainer at M.J. end on hydrant and gate valve. If more than one pipe is required on hydrant run, connect pipes with mechanical joint sleeve and MEGALUG restrainers.

When fire hydrants are located in parking lots, or other areas where permitted speed limits do not exceed 5 miles per hour, hydrant guard posts shall be installed as follows:

Hydrant guard post shall be installed in areas where the hydrant is not protected by a cement concrete curb on all sides where vehicles may have access. Guard posts shall be installed according to the minimum dimensions shown in the Standard Details.

Where a hydrant is being installed, reset, moved or reconnected, a blue raised pavement marker (Type 2) shall be installed perpendicular to each hydrant in the interior channelization of the outside lane, unless one already exists. Install the lane marker 1 foot off of the channelization line, toward the hydrant.

F. Valve Installation

Before installation, valves shall be cleaned of all foreign material. Such blocking as the Engineer may deem necessary shall be provided. The valve and valve box shall be set plumb with the valve box centered on the valve. The top of the valve box shall be set with all valves except auxiliary valves for hydrants. Where valve operating nut is more than three feet below finished grade, a stem extension conforming to the Standard Detail must be installed. Tapping valves shall be water tested prior to tapping water main.

The top of the valve box base section shall be located a minimum of 6 inches and maximum of 9 inches below finished grade. A polyethylene sheet, 8-mils thick, shall be placed between the top and base valve box sections to prevent metal to metal contact where the sections overlap.

Valve box top sections shall be adjusted flush with the finished pavement and, in those areas to be excavated for future roadway grades, enough adjustment shall be provided in the valve box to allow the top of the box to be adjusted to the required grade.

G. Air Vacuum Installation

Installation shall be as shown on the Standard Detail.

Iron Piping and fittings shall be galvanized. Location of the air release valves as shown on the plans is approximate. The installation shall be set at the high point of the line. The water line must be constructed so the air release valve may be installed in a convenient location.

H. Valve Box Marker Installation

Concrete marker posts, painted with two coats Rust-Oleum No. 2766 Hi-Gloss white paint, shall be set for all valves, where needed. The marker shall be set on a line through the valve at right angles to the center line of the road. The marker shall generally be set on the property line unless the Engineer decides another location is safer or more conspicuous. Distance to the valves shall be neatly stenciled on the post with 2-inch numerals. Valve markers shall be installed only in unimproved or unpaved areas.

I. Service Lines

(1) New Service Installations

Service installation shall be as shown on the Standard Details.

Tapping of polyethylene encased ductile iron pipe shall be performed by wrapping three layers of polyethylene compatible adhesive tape completely around the pipe to cover the area where the direct tapping machine and chain will be mounted.

Where a saddle is used in lieu of direct tapping, make a cut in the taped area large enough to accommodate the gasket directly in contact with the ductile iron pipe. Make necessary repair for damaged encasement.

The existing polyethylene encasement shall be field cut and replaced after the tap is installed.

(2) Reconnecting Existing Services

Install service connections as shown on the Standard Detail and plans. Install services under paving by boring. Bore or tunnel under sidewalks and curbs. Damages shall be repaired by Contractor. Provide 30-inches minimum cover on service lines. Install service at 90 degrees horizontally to the main to intercept the existing meters. A deviation of not more than 3 degrees will be allowed. Blow off service prior to connection to meter.

Install meter setter and boxes as shown on the Standard Detail and where directed by the Engineer.

Service connections shall not be transferred to the new main until it has been successfully flushed, disinfected and tested. When transferring services from the existing main to the new main, the Contractor shall take sanitary precautions to protect the potable water supply in both the existing and new mains.

The Contractor shall submit for approval a sketch and a list of proposed bushings, adapters, etc. The sketch shall show proposed fittings, (by brand name) for single meter hookups, and connection to existing copper and plastic pipe of various diameters. Multi-meter hook-ups are not allowed, when existing multi-meter hook-ups are encountered,

the Contractor shall convert them to single meter hook-ups.

All new service line shall be soft annealed copper.

No reconnection to substandard service lines shall be allowed.

Substandard plastic service pipe is usually 80 psi polyethylene pipe. The Engineer shall decide if existing service lines are substandard.

J. Pressure Reducing Station

The pressure reducing valves, strainers, pressure relief, pipes and fittings shall be constructed in accordance with the applicable AWWA and uniform plumbing code requirements. Pressure reducing valves, 6 inches and larger, shall be supported by a pipe stanchion. Stanchion shall be bolted to vault floor.

Pressure relief discharge pipe shall be placed in location that will not be subject to damage or erosion during discharge of water.

K. Concrete Blocking

All bends and tees and valves shall be blocked in accordance with the Standard Details. All poured in place blocking shall have a minimum measurement of 12 inches between the pipe and the undisturbed bank. The Contractor shall install blocking which is adequate to withstand full test pressure, as well as, to continuously withstand operating pressures under all conditions of service. All concrete shall be mechanically mixed.

L. Connection to Existing Water Main

Points of connection to existing water mains shall be exposed prior to trenching of the new line, and not less than 48 hours prior to the anticipated connection time. The contractor shall request a shut-down from the City at least 7 calendar days excluding holidays in advance of the need of any water main shut-off or connection. Water main shut-offs shall not be scheduled to take place on Fridays, or on the 5 days before nor 1 day after a City holiday, unless otherwise approved by the City. The Contractor shall notify impacted water customers not less than 48 hours (2 calendar days excluding weekends and holidays) in advance of interruption of water service. The Contractor shall ensure that the existing fittings are in accordance with the Contract Plans and that the connection can be made in accordance with the Contract Plans. The Contractor shall immediately notify the Engineer if the connection cannot be made in accordance with the plans in order that the connection detail may be revised.

Connection to the existing main shall take place only after the new main is flushed, disinfected, and satisfactory bacteriological sample results are obtained. An approved backflow prevention assembly shall be installed between the existing and new water lines during disinfection and flushing of new main. All connections to the existing system and all testing of the new line must be with the authorization of, and in the presence of, the authorized representative of the City. Opening and closing of valves, and use of water from the City's system will be done only by the City. The backflow preventer and supply hose must be disconnected during hydrostatic pressure testing of new main.

The City priority is to install connections to existing water mains via cut-ins. Tapping tees are of second priority and may be installed upon approval by the City. Connections may be made to existing pipes under pressure with a tapping machine by determining the size and type of pipe and installing tapping tee to fit complete with tapping gate valve. Tapping tees shall be installed as shown on the Standard Details. Where cut-ins are permitted to be made in existing pipes, the work shall be conducted at such a time and in such a manner as to minimize the interruption of service. Cut-in time must be approved by the City. Necessary pipe, fittings and gate valves shall be assembled at the site ready for installation prior to the shutting-off of water in the existing main. Once the water has been shut off, the work shall be prosecuted vigorously and shall not be halted until the line is restored to service. The interiors of all pipe and fittings to be used in final connection shall be swabbed or sprayed with a 1 percent available chlorine solution.

All water main shutoffs shall be performed by City staff. Water main shut-offs shall occur during non-holiday weekdays unless otherwise specified herein or as agreed to by the Engineer. The Contractor shall request water main shut-offs at least seven calendar days in advance (not including holidays) of need. The Contractor shall notify all affected water users in writing at least 48 hours in advance (not including weekends and holidays) of any water shutoffs. The Engineer will provide the written notice to customers for the Contractor to distribute. Water main shut-offs shall not occur in the 5 weekdays preceding or the day after the major holidays listed below:

- Memorial Day
- Fourth of July
- Labor Day
- Thanksgiving
- Christmas
- New Year's Day

Due to the needs of various water customers in the project vicinity, water shut-off periods are limited to the times set forth below:

<u>Days</u>	<u>Hours</u>
Monday	8:30 AM to 3:00 PM
Tuesday	8:30 AM to 3:00 PM
Wednesday	8:30 AM to 3:00 PM
Thursday	8:30 AM to 3:00 PM
Friday	DO NOT SCHEDULE
Saturday	DO NOT SCHEDULE
Sunday	DO NOT SCHEDULE

The Engineer, at his sole discretion, may adjust these shutoff periods in order to address specific project circumstances and customer needs.

M. Order of Construction

Restoration of trenches shall closely follow installation and testing of pipe. The Engineer will inspect and observe the hydrostatic test of the pipe within 24 hours after notification by the Contractor that a section is ready for inspection and test. The Contractor shall contact the Engineer at least 24 hours in advance of the completion of sterilization and flushing and his representative shall be present when the Engineer takes water samples.

N. Hydrostatic Tests

Prior to the acceptance of the work, the installation shall be subjected to a hydrostatic pressure test per WSDOT Standard Specifications Section 7-09.3(23) in the line and any leaks or imperfections developing under said pressure shall be remedied by the Contractor before final acceptance of the work. No air will be allowed in the lines. The mains shall be tested between valves. Insofar as possible, no hydrostatic pressure shall be placed against the opposite side of the valve being tested. Test pressure shall be maintained while the entire installation is inspected. The Contractor shall provide all necessary equipment and shall perform all work connected with the test. Tests shall be made after all valved connections have been made. At unvalved connection points, a temporary plug (or 2-inch blowoff assembly on lines without hydrants) shall be installed at the end of the new main. This shall include concrete blocking necessary to withstand pressures encountered during the hydrostatic test.

Fire Line testing shall be in accordance with the City's Fire Code and National Fire Prevention Association (NFPA) Standard #13 and #25, with no loss for two hours.

Once the new line is successfully tested and disinfected, the plug (blowoff) shall be removed and the connection to the existing main completed. Insofar as it is practical, tests shall be made with pipe joints, fittings and valves exposed for inspection. For approval, pressure shall not drop more than 10 psi for 15 minutes. The Contractor shall perform the test to assure that the equipment to be used for the test is adequate and in good operating condition, and the air in the line has been released before requesting the Engineer to witness the test. The Engineer shall witness the test; if the test does not pass inspection for any reason, additional trips required to witness the test shall be done at the Contractor's expense.

The contractor shall provide special plugs and blocking necessary in those locations where it would be necessary to test against butterfly valves to insure that the pressure ratings of these valves is not exceeded during testing.

O. Sterilization and Flushing of Water Mains

Sterilization of water mains shall be accomplished by the Contractor in accordance with the requirements of the Washington State Department of Health and in a manner satisfactory to the Engineer. The section to be sterilized shall be thoroughly flushed at maximum flow established by the Engineer prior to chlorination. Flushing period must be approved by the City. Sections will ordinarily be sterilized between adjacent valves unless, in the opinion of the Engineer, a longer section may be satisfactorily handled. Chlorine shall be applied by solution feed at one end of the section with a valve or hydrant at the opposite end open sufficiently to permit a flow through during chlorine application. The chlorine solution shall be fed into the pipeline already mixed by an automatically proportioning applicator so as to provide a steady application rate of not less than 60 ppm chlorine. Hydrants along the chlorinated section shall be open during application until the presence of chlorine has definitely been detected in each hydrant run. When a chlorine concentration of not less than 50 ppm has been established throughout the line, the valves shall be closed and the line left undisturbed for 24 hours.

As an alternative, the Contractor may use granulated chlorine for small systems if the flushing and testing can be completed within 1 week after placing the granulated chlorine. Granulated chlorine (dry calcium hypochlorite at 65 percent – 70 percent chlorine) shall be placed in the pipe to yield a dosage of not less than 50 ppm. The number of ounces of 65 percent test calcium

hypochlorite required for a 20-foot length of pipe equals $.008431d$, in which "d" is the diameter in inches. The line shall then be thoroughly flushed and water samples taken for approval by the local health agency. Flushing period must be approved by the City. The Contractor shall exercise special care in flushing to avoid damage to surrounding property and to conform to Section 6.05 B Surface Water Quality.

Should the initial treatment result in an unsatisfactory bacteriological test, additional chlorination using the first procedure shall be repeated by the Contractor until satisfactory results are obtained. The Contractor shall be responsible for disposal of treated water flushed from mains and at no time shall chlorinated water from a new main be flushed into a body of fresh water. This is to include lakes, rivers, streams, storm drainage systems, and any and all other waters where fish or other natural water life can be expected. Disposal may be made to any available sanitary sewer provided the rate of disposal will not overload the sewer.

P. Preconstruction Photos for City Contracts

Before commencing any construction work as described in the plans and specifications, the Contractor shall provide photographs of pre-existing conditions of the area that will be disturbed during construction operations. Photographs will be obtained as follows:

- Every 25-foot interval in easements.
- Every 50-foot interval in paved areas.
- And any other location as directed by the Engineer.

The photographs shall be taken with a 35mm camera, developed in 4" x 6" color prints, contained in albums, cataloged, and cross-referenced.

Q. Trench Excavation

Before commencement of trenching provide sediment trap for all downhill storm drain catch basins per City of North Bend detail. Plastic sheeting must be available onsite. In case of rain any stockpiled material must be covered and secured.

Clearing and grubbing limits may be established by the Engineer for certain areas and the Contractor shall confine his operations within those limits. Debris resulting from the clearing and grubbing shall be disposed of by the Contractor.

Trenches shall be excavated to the line and grade designated by the Engineer and in accordance with the Standard Details. Trenches shall comply with OSHA and WISHA requirements regarding worker safety.

The trench shall be kept free from water until joining has been completed. Surface water shall be diverted so as not to enter the trench. The Contractor shall maintain sufficient pumping equipment on the job to insure that these provisions are carried out. The Contractor shall perform all excavation of every description and of whatever substance encountered as part of his trench excavation cost. Unsuitable material below the depth of the bedding shall be removed and replaced with satisfactory materials as determined by the Engineer.

Trenching operations shall not proceed more than 100 feet in advance of pipe laying except with written approval of the Engineer.

Providing sheeting, shoring, cribbing, cofferdams, and all aspects involved therein shall be the sole responsibility of the Contractor. Such trench/excavation protection shall comply with the requirements of Section 2-09 Structure Excavation and Section 7-08.3(1)B Shoring of the Standard Specifications, Chapter 49.17 RCW of the Washington Safety and Health Act, and Part N – Excavation, Trenching and Shoring of Chapter 296-155 WAC.

When trenching operations take place in the public right-of-way, the pavement, and all other improvements, shall be restored as required by the Right-of-Way Use Permit.

R. Sheeting and Shoring

The Contractor shall provide and install sheeting and shoring as necessary to protect workmen, the work and existing utilities and other properties in compliance with OSHA and WISHA requirements. All sheeting and shoring above the pipe shall be removed prior to backfilling. Sheeting below the top of the pipe may be cut off and left in place.

All trenches and excavations more than 4 feet in depth shall be shored in compliance with applicable Federal and State regulations. Shoring shall be required in all street excavation. Sloping to the angle of repose will be permitted only in non-critical off-street areas.

Removal of the sheeting and shoring shall be accomplished in such a manner that there will be no damage to the work or to the other properties.

S. Trench Dewatering

When water is encountered to a degree that a successful trenching and pipe laying operation is hampered, dewatering will be the responsibility of the Contractor. Determination of the method to be used to dewater trenched areas will be the responsibility of the Contractor, but any method used must be in accordance with the specifications and requirements of the Washington State Department of Ecology and the Local Jurisdiction.

T. Bedding, Backfill, and Compaction

(1) Pipe Bedding Construction Requirements

Pipe bedding shall conform to Section 7-08.3(1)C Bedding the Pipes of the Standard Specifications as modified herein in order to provide uniform support along the entire pipe barrel, without load concentration at joint collars or bells.

Jetting is not an allowable method to compact the bedding materials.

(2) Trench and Structure Backfill Construction Requirements

Backfilling shall be accomplished in accordance with Section 2-09 Structure Excavation of the Standard Specifications as modified herein:

In paved areas, trench backfill material shall be compacted to 95% maximum dry density per Section 2-03.3(14)D Compaction and Moisture Control Tests of the Standard Specifications.

In unpaved areas, trench backfill material shall be compacted to 90% maximum dry density per Section 2-03.3(14)D Compaction and Moisture Control Tests of the Standard Specifications.

The Contractor shall arrange for compaction testing to be performed by a certified technician. The Contractor shall provide the Engineer with one copy of the compaction test report within 24 hours of the completion of the test.

Compaction tests shall be made at a maximum of 4-foot depth increments with a minimum of one test for any backfilling less than 4 feet in depth. The maximum space between tests shall not exceed 100 linear feet. At least one compaction test shall be performed at each backfilled structure or for every 50 CY of backfill placed. If the structure (e.g., manhole, catch basin or inlet) is part of a pipeline trench, then trench compaction testing frequency governs.

For mechanical compaction methods ("hoe pack," vibratory roller, static roller, etc.), the maximum backfill lift shall not exceed 2 feet between the application of compaction equipment.

For manual compaction methods (all walk-behind equipment, "jump jack," etc.), the maximum backfill lift shall not exceed 1 foot between the application of compaction methods.

Jetting is not an allowable method to compact the trench backfill.

Surface restoration shall be as specified in the Right-of-Way Use Permit and as shown on the approved plans.

(3) Foundation Gravel Construction Requirements

Foundation gravel under manholes, catch basins, inlets, vaults, and other precast concrete structures shall be placed in layers not more than 6-inches thick and compacted to provide a firm and level base on which to place the structure. Unless shown otherwise on the Contract Plans, the minimum thickness of foundation gravel under precast concrete structures is 6 inches.

(4) Controlled Density Fill Construction Requirements

Controlled Density Fill (CDF) can be proportioned to be flowable, non-segregating, or excavatable by hand or machine. Desired flowability shall be achieved with the following guidelines:

- Low Flowability below 6-inch slump
- Normal Flowability 6 - 8-inch slump
- High Flowability 8-inch slump or greater

CDF shall be placed by any reasonable means into the area to be filled.

CDF patching, mixing and placing may be started if weather conditions are favorable, when the temperature is at 34 degrees F and rising. At the time of placement, CDF must have a temperature of at least 40 degrees F. Mixing and placing shall stop when

temperature is 38 degrees F or less and falling. Each filling stage shall be as continuous an operation as is practicable. CDF shall not be placed on frozen ground.

Trench section to be filled with CDF shall be contained at either end of trench section by bulkhead or earth fill.

When used to support existing asbestos cement (AC) pipe, the flowable CDF shall be brought up uniformly to the bottom of the AC pipe, as shown on the plans, or as directed by the Engineer.

Contractor shall provide steel plates to span utility trenches and prevent traffic contact with CDF for at least 24 hours after placement or until CDF is compacted or hardened to prevent rutting by construction equipment or traffic.

U. Trenchless Excavation

The use of trenchless excavation methods such as pipe bursting and horizontal directional drilling shall be considered by the City on a case-by-case basis under the following conditions:

- (1) Romac 501 transition couplings are required at both ends.
- (2) The installed pipe must be electronically located and marked on the ground for measurement in order to draw the as-built schematics.
- (3) The pipe must be video-inspected following installation, with water running. The video inspection must be provided to the Inspector to approve the installation or require corrections.
- (4) Pipe bursting is not allowed on another person's property or public right-of-way without the appropriate permission, such as an easement, or right-of-way use permit.

V. Adjust Existing Structure to Grade

(1) Vault Cover Adjustment

Existing vault covers affected by a pavement overlay, or adjustment in surface grade, shall be adjusted to grade within 3 calendar days excluding weekends and holidays.

(2) Valve Box Adjustment - Pavement Overlays and Sidewalks

- (a) Raising the existing valve box cover less than 2 inches shall be accomplished by adjusting the existing top section of the valve box.
- (b) Raising the existing valve box cover 2 inches or more, shall be accomplished by either adjusting the existing top section or by inserting a valve box paving riser into the existing valve box top. The paving riser shall be epoxied to the valve box.
- (c) If the valve box base section needs to be extended, the contractor shall install a 4-inch-diameter cast iron soil pipe, with bell-end of the soil pipe inserted over the top of the existing valve box base section. The spigot-end of the soil pipe shall

be located a minimum of 6 inches and maximum of 9 inches below finished grade. The valve box top section shall be slipped over the soil pipe and adjusted to final grade. A polyethylene sheet, 8-mils thick, shall be placed between the valve box and soil pipe to prevent metal to metal contact where the sections overlap.

Final box adjustment shall leave the top of the valve box no higher than final grade, and no lower than 0.5 inch below final grade.

In asphalt concrete pavement overlay areas, excavation of the valve box to be raised shall be accomplished by sawcutting or neat-line jackhammering the pavement a minimum of 12 inches around the perimeter of the valve box.

Final adjustment of valve boxes shall be made within 20 calendar days following the final overlay.

(3) Valve Box Adjustment - Unimproved Areas

Adjustment of valve box covers located outside paved areas or sidewalks can be accomplished using a 12-inch valve box adjusting sleeve inserted into the existing valve box top section.

W. Abandoning Facilities

(1) Abandoning Pipe in Place

The Contractor shall plug the open ends of all pipes, fittings, etc., to be abandoned with end cap coupling on asbestos cement or steel pipe, with mechanical joint cap or plug on cast or ductile iron pipe.

(2) Abandoning Structures

Abandonment of structures shall be completed only after piped systems have been properly abandoned. Structures within the public right-of-way, a public easement or which are part of the publicly-owned and maintained system must be:

- Removed completely according to Section 2-02 of the current Standard Specifications; or
- Abandoned according to Section 7-05.3 of the current Standard Specifications provided no conflicts with new utilities or improvements arise.

(3) Abandoning Gate Valves in Place

Abandoned valves shall be removed and a blind flange installed on the tee. When an abandoned valve cannot be removed, as determined by the City, the valve shall be closed, a blind flange installed and a piece of 2-inch white PVC shall be placed over the operating nut.

X. Lawn Removal and Replacement

Any lawn damaged by the Contractor outside of limits shown on the plan shall be restored to conditions existing prior to construction. Contractor shall take care to limit the area of disturbance.

When lawn removal and replacement is called for, a sufficient width (at least 2 feet wider than outside width of backhoe wheels or tracks) of lawn turf shall be removed prior to beginning excavation so that heavy equipment does not run over the lawn.

The area of the sod to be removed shall be laid out in squares or strips of such size as to provide easy handling and matching. The sod shall then be carefully cut along these lines to a depth of 4 inches, taking care to keep cuts straight and strips of the same width. After the sod has been cut vertically, it shall be removed to a uniform depth of approximately 3 inches with an approved type of sod cutter.

This operation shall be performed in such manner as to ensure uniform thickness of sod throughout the operation.

Prior to installation of new sod, the scalped area shall be carefully shaped to proper grade and be thoroughly compacted. Wherever the construction operations have resulted in the placement of unsuitable or poorer soils in the area to be resodded, the surface shall be left low and covered with top soil.

The finished grade, after shaping and compacting the top soil, shall be thoroughly dampened prior to and immediately before replacing the sod. The sod shall be replaced to the required grade, taking care to butt each piece tightly against the adjacent one. Upon completion, the sod shall be dampened and rolled with a lawn roller.

All tools used shall be of the type specially designed for the work and be satisfactory to the Engineer. In no case shall sod be removed by the use of a mattock or other tool which will not meet requirements specified herein.

Sod shall be a 4-way blend of Ryegrasses.

Y. Boring Under Roots

Boring under the root systems of trees (and plants) shall be accomplished by excavating a trench or pit on each side of the tree and then hand digging or pushing the pipe through the soil under the tree. The pit walls shall be a minimum of 7 feet from the center of the tree and shall be sufficient depth to lay the pipe at the grade shown on the plan and profile.

Z. Highway and Railroad Crossings

Interstate, state, or county highway and railroad crossings require the placing of steel, cast iron or concrete pipe casing by jacking or tunneling and laying the carrier pipe within the casing.

AA. Boring and Jacking Steel Casing

The Contractor shall verify the vertical and horizontal location of existing utilities. If required to avoid conflicts and maintain minimum clearances, adjustment shall be made to the grade of the casing.

The pipe shall be bored and jacked where indicated. The Contractor shall remove or penetrate all obstructions encountered. If groundwater is found to be a problem during boring operations, the Contractor shall do all that is necessary to control the flow sufficiently to protect the excavation, pipe and equipment so that the work is not impaired. Any pipe damaged during the boring and jacking operation shall be repaired by the Contractor in a manner approved by the Engineer.

Special care shall be taken during the installation of the bored and jacked pipe to ensure that no settlement or caving be caused to the above surface. Any such caving caused by the placement of the pipe shall be the Contractor's responsibility and he shall repair any area so affected as directed by the Engineer.

During the jacking operations, particular care shall be exercised to prevent caving ahead of the pipe which will cause voids outside of the pipe. If voids exist, the Contractor shall drill through the wall of the pipe and fill the voids with a pumped cement grout. All voids shall be filled to the satisfaction of the Engineer.

The carrier pipe shall be installed in the casing as shown on the drawings. The Contractor shall support carrier pipe with casing spacers as shown in the Standard Detail. The casing pipe shall not be backfilled with sand and grout. The casing ends shall be sealed with asphaltic material 1 foot minimum on each end, or with manufactured rubber end seal device.

Boring pits shall be backfilled with select native material and compacted to 95 percent maximum dry density as determined by ASTM D-1557. The contractor shall provide sufficient select backfill material to make up for the rejected material.

All disturbed ground shall be restored to its original condition or better.

BB. Working with Asbestos Cement Pipe

When working with asbestos cement pipe, the Contractor is required to maintain workers' exposure to asbestos material at or below the exposure limit as prescribed in WAC 296-62-07705 State/Federal Guidelines and Certification.

CC. Asbestos Cement Water Main Crossing

Where new utility line crosses below an existing AC main, the AC pipe shall be replaced with DI pipe to 3 feet past each side of trench as shown on the Standard Detail. Alternatively, where directed by the Engineer, the trench shall be backfilled with controlled density fill (CDF, aka flowable fill) from bottom of trench to bottom of the AC main.

DD. Vault Installation

Vaults for water facilities (pressure reducing station, water service, backflow device, etc.) shall be constructed at the locations shown in the plan and as staked. It shall be constructed as shown in the plans, Standard Details and as directed by the Engineer.

The excavation shall have minimum 1-foot clearance between the vault outer surfaces and the earth bank. The vault shall be placed on firm soil. If the foundation material is inadequate, the contractor shall use foundation gravel or bedding concrete to support the vault. The vault shall be plumb and watertight. The access cover shall be seated properly to prevent rocking and shall be adjusted to match the finished grade. The vault shall have coal tar coating of 5 to 9 mils applied to the exterior.

Vault floor shall drain to daylight, or to location shown on the plan. Drain pipe shall be minimum 4-inch diameter.

Where knockout locations for pipe do not coincide with locations of pipe penetrations into the vault, the Contractor shall core drill openings for pipe.

EE. Clearances/Other Utilities

If the minimum vertical distance between utility pipes is less than 6 inches and such installation is approved by the City, a pad shall be placed between the pipes. The pad shall be O.D. x O.D. x 2.5-inches thick minimum or as required to protect the pipes. Above O.D. is equal to the outside diameter of the larger pipe. The pad shall be a polyethylene foam plank (Dow Plastics Ethafoam[™] 220), or approved equal. Additional measures may be necessary to ensure system integrity and may be required as evaluated by the City on a case by case basis.

6.06 Summary of Underground Fire System Installation Requirements for Commercial and Multi-Family Projects (for Services Greater than 2 Inches in Diameter)

A. General

Listed below is a summary of the requirements for the installation of underground fire lines in commercial and multi-family projects.

B. Permitting

Installation of a dedicated fire service line from the municipal water main to the building floor flange and underground fire sprinkler piping and appurtenances (e.g., FDCs) shall be accomplished under a Utility Developer Extension Agreement (UE).

C. Installation

Contractor must be a Level “U” or Level III licensed contractor in accordance with RCW 18-160 and WAC 212-80 to install any portion of the fire sprinkler underground piping. Developer shall submit proof of Contractor’s Certificate of Competency Holder and fire sprinkler system licensing prior to permit issuance. State law does not allow a licensed contractor to subcontract fire sprinkler system installation to an unlicensed contractor.

D. Inspections

Inspectors will inspect and test the underground fire lines:

- (1) DCVA Inside the Building – from the municipal water main to within 5 feet of the building foundation; and

- (2) DCVA Outside the Building – from the municipal water main to the downstream flange on the DCVA.

Wall-mounted PIVs and FDCs, as well as interior DCVAs and swing check valves will be inspected by the Fire Department under a separate permit.

Connections and fittings shall not be backfilled prior to inspection.

Pressure test – 225 psi for 2 hours, or 50 psi in excess of working pressures, whichever is greater, with no loss between the gate valve on the municipal water main and the floor flange.

Bag Flush – In the presence of the Fire Inspector, first charge the service line from a fire hydrant (Standard Detail W-9) through the FDC and flush out the floor flange. Next, flush the entire fire line out at the floor flange. The flush must be witnessed by the Fire Inspector. The fire line shall be flushed for a minimum of 15 minutes at scouring velocities unless otherwise directed by the Inspector. If debris is detected in the bag, additional test(s) shall be performed until the debris has been cleared from the line.

Disinfection and Purity Test – See Section 6.05 Q.

Inspection processes and approved materials may be different outside the North Bend city limits. New backflow assembly test reports from outside of North Bend city limits must be submitted to the Public Works Department.

E. Materials and Construction Requirements

(1) General

- Minimum depth of cover for all piping is 3 feet.
- Maximum depth of cover for all piping is 6 feet.

(2) Pipe

- Ductile Iron Pipe, Class 52, cement mortar lined or epoxy coated. See Section 6-04 B.
- Polyethylene encasement, 8 mil thickness minimum. See Section 6-04 C.
- All pipe shall have restrained joints. Field lock gaskets are not allowed.
- Casings are required under walls and footings. See Section 6-04 HH and 6-04 II.

(3) Fittings

- Ductile Iron, Class 52, compact type, cement mortar lined or epoxy coated. See Section 6-04 D.
- All fittings shall have restrained joints (See Section 6-04 Z) and concrete thrust blocking. Dual restraint is required on all changes in direction.
- “Field-Lok” gaskets as manufactured by V.S. Pipe and Foundry are not allowed.
- Cement concrete blocking is required at all changes in direction (Standard Details W-1, W-2, and W-3).

(4) Double Check Valve Assembly (DCVA)

Assembly must be installed in the orientation approved by the Washington State Department of Health. See Section 6-04 CC and Standard Detail W-45.

(5) Post Indicator Valve (PIV)

- Location – PIV shall be set on the fire service line between the easement/property line and the point of connection of the FDC on the fire service line.
- Clearance – 3 feet from obstructions, vegetation, fencing, structures, curb line, and edge of sidewalk; 5 feet from protective bollards.
- PIV – Listed for fire protection service, rated for 200 psi test pressure.
- Paint – Two coats of Rust-Oleum Regal Red over primer.

(6) Bollards

Bollards are required when the PIV or FDC may be subject to vehicular damage. Install 6-inch diameter minimum, Schedule 40 iron pipe or Class 52 DI pipe, filled with Class 3000 concrete.

- Height – equal to or higher than the height of the FDC or PIV.
- Embedment – 3-foot depth in a 15-inch-diameter concrete footing.
- Spacing – sufficient to protect the FDC or PIV spaced not more than 4 feet apart.
- Paint – Two coats of Rust-Oleum Regal Red over primer.

(7) Tamper Protection

- Tamper (supervisory) switches shall be installed on PIVs and DCVAs.
- Electrical conduits penetrating vault walls shall be neatly cored or drilled and the annular space grouted, inside and out, to prevent seepage.
- A vault drain (gravity to storm drain or sump pump – no dry wells) is required if tamper switches and wiring are not waterproof.
- Tamper protection will be inspected by Fire Department under the fire sprinkler permit (FB).

APPENDIX 6-1**WATER STANDARD DETAILS**

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APPENDIX 6-2

WATER APPROVED MATERIALS LIST

The following manufacturers have been approved for use for water works construction. Where specific manufacturers are listed no other manufacturer may be used without prior approval by the Utility.

DUCTILE IRON PIPE

All manufacturers that meet the performance requirements specified under the material section of the Standards.

DUCTILE IRON FITTINGS

All manufacturers that meet the performance requirements specified under the material section of the Standards.

GALVANIZED IRON PIPE

All manufacturers that meet the performance requirements specified under the material section of the Standards.

JOINT RESTRAINT SYSTEMS

American Ductile Iron Pipe (Flex-Ring)
EBAA Iron (MEGALUG 1100 Series)
EBAA Iron (MEGAFLANGE 2100 Series)
Griffin Pipe Products Company (Snap-Lok, Bolt-Lok)
Pacific States Cast Iron Pipe Co, (Thrust Lock)
Romac (Grip Ring), 600 Series, RomaGrip
Romac (Bell Restraint) 611 with 316SS stainless steel nuts and bolts
Star National Products (Shackle Products) - All rods and hardware shall be 316SS stainless steel.
Cooper B-Line B3132– Heavy Duty Hot Dipped Galvanized pipe clamps (embedded in concrete blocks)
US Pipe (TR FLEX)
Uni-Flange Corporation Series 1400, or Series 1450 with 316SS stainless steel nuts and bolts

REPAIR CLAMPS

Romac Industries, Models SS1 and SS2

COUPLINGS

Romac (400 and 501 Series), Smith-Blair (Rockwell), Mueller MaxiFit, Mueller MaxiStep

CASING (COATING FOR STEEL CASING)

Tnemee Hi-Build Tneme-Tar, Series 46H-413

CASING SPACERS

Pipeline Seal and Insulator Co.:

- 8" band, carbon steel with fusion-bonded coating, Model C8G-2
- 12" band, carbon steel with fusion-bonded coating, Model C12G-2

Cascade Waterworks Mfg. Co.:

Stainless Steel or hot-dip galvanized carbon steel Casing Spacers (catalog number depends on size)

Advance Products & Systems, Inc.:

- 8" band, stainless steel, Model SSI8
- 12" band, stainless steel, Model SSI12
- 8" band, carbon steel with fusion-bonded coating, Model SI8
- 12" band, carbon steel with fusion-bonded coating, Model SI12

CASING END SEALS

Pipeline Seal and Insulator Co.:

- Standard Pull-on (Model S)
- Custom Pull-on (Model C)

Cascade Waterworks Mfg. Co.:

- CCES End Seal

Advance Products & Systems, Inc.

- Molded End Seal, Model AM

GATE VALVES

All manufacturers that meet the performance requirements specified under the material section of the Standards.

PRV STATION

- PRESSURE REDUCING VALVES

- | | | |
|------------------------|----|---|
| CLA-VAL 90G-01ABCSKC } | 6" | With stainless steel trim on disk guide,
seat, and cover bearing |
| CLA-VAL 90G-01ACSKC } | 2" | |

- STRAINERS

- | | | |
|-----------------|----|--|
| Cla-Val X43H } | 6" | Mesh openings 0.059 inch
Stainless steel perforated screen,
1/16-inch diameter, 144 holes per
square inch |
| MUESSCO 11-BC } | 2" | |

- PRESSURE RELIEF VALVES

- | | | |
|--------------------|----|---|
| CLA-VAL 50G-01KC } | 2" | With stainless steel trim on disk guide,
seat, and cover bearing |
|--------------------|----|---|

INDIVIDUAL PRESSURE REDUCING VALVES (Residential)

Wilkins 600 with built-in bypass

INDIVIDUAL PRESSURE REDUCING VALVES (Commercial)

- PRESSURE REDUCING VALVES

Wilkins 600 HLR Series with built-in bypass

PRESSURE RELIEF VALVES

CLA-VAL 55F

SERVICE SADDLES

- 1" tap: Ford FC101 (4" to 8" mains), epoxy-coated saddle with stainless steel strap
Smith-Blair 315, epoxy-coated saddle with stainless steel strap
A.Y. McDonald 4835A series, epoxy-coated saddle with stainless steel strap
Romac 101NS, nylon-coated saddle with stainless steel strap
- 1 1/2" & 2" tap: Ford FC202 and FCD202, epoxy-coated saddle with stainless steel strap(s)
Smith-Blair 317, epoxy-coated saddle with stainless steel strap
A.Y. McDonald 4845A or 4855A, epoxy-coated saddle with stainless steel strap(s)
Romac 202NS, nylon-coated saddle with stainless steel strap(s)

CORPORATION STOPS

- 1" size: Ford Ballcorp FB1000-4
Mueller No. P-15028
A.Y. McDonald 4701-22, 4701B-22
- 1 1/2" size: Ford Ballcorp FB400-6
Mueller Oriseal No. H-9968
A.Y. McDonald 4701B-22, or 3128B (with FIPT by pack joint coupling 4754-22)
- 2" size: Ford Ballcorp FB400-7
Mueller Oriseal No. H-9968
A.Y. McDonald 4701B-22, or 3128B (with FIPT by pack joint coupling 4754-22)

ANGLE METER VALVES

- 1 1/2" Irrigation: Ford FV13-666W
Mueller 1 1/2" H-14286
A.Y. McDonald 4604B
- 2" Irrigation: Ford FV13-777W
Mueller 2" H-14286
A.Y. McDonald 4604B

VALVE BOXES

Olympic Foundry Inc.: #VB045 Lid, Top and Base Section

RICH (VanRich Casting Corp.): Top section and lid #045 with RICH Standard Base

BUTTERFLY VALVES

All manufacturers that meet the performance requirements specified under the material section of the Standards.

AIR AND VACUUM RELEASE VALVES

APCO No. 143-C, Val-Matic No. 201C, Crispin UL10

FIRE HYDRANTS

M & H 929

Mueller Centurion (No other Mueller hydrants allowed)

BRASS WATER SERVICE FITTINGS AND VALVES

Approved manufacturers of brass fittings and valves up to 2 inch sizes include Ford, Mueller, James Jones Company (except James Jones meter setters, which are not approved), and A.Y. McDonald Manufacturing Co. The items supplied shall be equal to the models listed in these Standards.

METER SETTERS

1" x 1" (horizontal):

Ford V74-12W

Mueller 1" No. H-1404 x 12 with multi-purpose connection No. H-14222

A.Y. McDonald 20-412WXDD44

1" x 1" (vertical):

Ford V74-84 x 12W

A.Y. McDonald 39-412WX2D44 (inlet coupling is MIPT by pack joint, 4753-22)

1-1/2" Domestic:

Ford VBB76-12B-11-66

A.Y. McDonald 20B612WWFF665 Vertical Meter Setter with Valve Rotated 90°

2" Domestic:

Ford VBB87-12B-11-77

A.Y. McDonald 20B712WWFF775 Vertical Meter Setter with Valve Rotated 90°

METER BOXES

1" x 1" Services:

Carson Industries 1527-18 BCFXL Meter Box, and
1527 Cover with Max View Reader Door
(formerly Mid-States Plastics MSBCF 1324-18)
Olympic Foundry SM30

1-1/2" and 2" Domestic:

Carson Industries 1730-18 BCFXL Meter Box, and
1730 Cover with Max View Reader Door
(formerly Mid-States Plastics MSBCF 1730-18)
Olympic Foundry SM301

1- 1/2" and 2" Irrigation:

Carson Industries 1730-18 BCFXL Meter Box, and
1730 Cover with Max View Reader Door
(formerly Mid-States Plastics MSBCF 1730-18)
Olympic Foundry SM-30

2" Blow-Off Assembly:

Olympic Foundry SM-30
Carson Industries 1730-18 BCFXL Meter Box, and
1730 Cover
(formerly Mid-States Plastics MSBCF 1730-18)

1" Air and Vacuum Release: Carson Industries 1730-18 BCFXL Meter Box, and
1730 Cover
(formerly Mid-States Plastics MSBCF 1730-18)

Pressure Reducing Valve Assembly: Carson Industries 1730-18 BCFXL Meter Box, and
1730 Cover
(formerly Mid-States Plastics MSBCF 1730-18)
Olympic Foundry SM-30

REDUCED PRESSURE BACKFLOW ASSEMBLIES

As approved on the most current Department of Health list for cross connection assemblies.

DOUBLE CHECK VALVE ASSEMBLIES

As approved on the most current Department of Health list for cross connection assemblies.

RESILIENT SEATED SHUT-OFF VALVES

All manufacturers that meet the performance requirements specified under the material section of the Standards.

NEOPRENE FOAM PAD (FOR CUSHION BETWEEN ADJACENT PIPES)

DOW Plastics Ethafoam™ 220

LADDER-UP

Bilco, Model LU-2 (steel safety post, hot dip galvanized)

VAULT HATCH/DOOR AND NON-SLIP TREATMENT

L.W. Products Company, Inc., Models HHD and HHS (rated for H-30 Vehicle Loading)

Hatches shall include recessed padlock hasp sized to accept City of North Bend padlocks.

Metal lids, hatches and access covers shall be constructed with a gray non-slip treatment by one of the approved products below:

<u>Manufacturer</u>	<u>*COF</u>	<u>Product</u>
LW Products	.95	Thermion Arc Metal Spray
SlipNOT Metal Safety Flooring .99		SlipNOT Grip Plate
IKG Industries	>.80	MEBAC 1 (Metal Bonded Anti-Slip Coatings)
Grating Pacific LLC	.92	ALGRIP Safety Floor Plates

*COF – coefficient of friction as determined by ASTM C1028-89

LINK SEAL

Vault wall pipe penetration seals shall be Link Seal Model C-316 (EDPM) with stainless steel hardware.

EXPANSION ANCHOR BOLTS INTO CONCRETE

Expansion anchor bolts shall be wedge style “Power Stud”, “Power Bolt” Hilti KB3-HPG in stainless steel or galvanized steel.

APPENDIX 6-3

WATER STANDARD PLAN NOTES

Water General Notes:

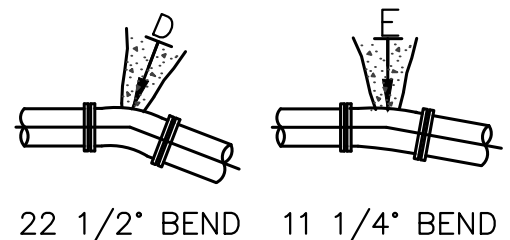
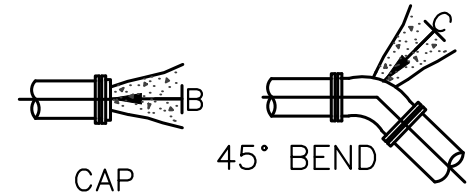
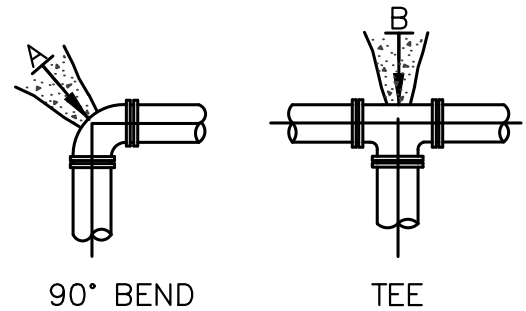
1. All work shall conform to the 2015 City of North Bend Water Standards and the Developer Extension Agreement.
2. All pipe shall be ductile iron class 52 unless otherwise shown.
3. All pipe and fittings not to be disinfected in place shall be swabbed with 1 percent available chlorine solution prior to installation.
4. The new water main shall be connected to the existing system only after new main is pressure tested, flushed, disinfected, and satisfactory bacteriological sample results are obtained. See Standard Detail W-8.
5. After disinfecting the water main, dispose of chlorinated water by discharging to the nearest operating sanitary sewer.
6. Water main shutoff shall be coordinated with the Water Operations Division for preferred timing during flow control conditions. Water main shutoffs shall not be scheduled to take place on Fridays, or on the 5 days before nor 1 day after a City holiday, unless otherwise approved by the Utility.
7. The locations of all existing utilities shown hereon have been established by field survey or obtained from available records and should therefore be considered approximate only and not necessarily complete. It is the sole responsibility of the contractor to independently verify the accuracy of all utility locations shown, and to further discover and avoid any other utilities not shown hereon which may be affected by the implementation of this plan.
8. Deflect the water main above or below existing utilities as required to maintain 3 feet minimum cover and 12-inch minimum vertical clearance between utilities unless otherwise specified.
9. Wrap all ductile iron pipe and adjacent valves and fittings with 8-mil. polyethylene conforming to AWWA C105.
10. The water main shall be installed only after the roadway subgrade is backfilled, graded and compacted in cut and fill areas.
11. Trench backfill and surface restoration of existing asphalt pavement shall be as required by the right-of-way use permit.
12. All fittings shall be blocked per Standard Detail unless otherwise specified.
13. All services shall be 1" x 1" per Standard Detail unless otherwise specified. Adaptors for 3/4-inch meters shall be used where applicable.
14. When working with asbestos cement pipe, the Contractor is required to maintain workers' exposure to asbestos material at or below the limit prescribed in WAC 296-62-07705.

15. Call 1-800-424-5555 48 hours before construction for utility locations.
16. Uniform plumbing code requires the installation of privately owned and operated pressure reducing valves where the operating pressure exceeds 80 psi.
17. The Contractor shall use a vacuum street sweeper to remove dust and debris from pavement areas as directed by the Engineer. Flushing of streets shall not be permitted without prior City approval.
18. Before commencement of trenching, the Contractor shall provide catch basin inserts for all catch basins that will receive runoff from the project site. The Contractor shall periodically inspect the condition of all inserts and replace as necessary.
19. Abandonment of existing water services shall be accomplished as follows:
 - a. Remove existing service saddle from water main and replace with new stainless steel repair band, Romac SS2, Ford Service Saddle FC101, or approved equal (will not be required when water main is to be abandoned).
 - b. Remove and dispose of existing setter and meter box.
 - c. Cap or crimp (if copper) existing service line to be abandoned in place, each end.
 - d. Return existing meter to City Utilities Inspector.
20. Where new utility line crosses below an existing AC main, the AC pipe shall be replaced with DI pipe to 3 feet past each side of the trench as shown on Standard Detail W-8. Wrap DI pipe and couplings with 8-mil polyethylene conforming to AWWA C105. Alternatively, where directed by the Engineer, the trench shall be backfilled with controlled density fill (CDF, aka flowable fill) from bottom of trench to spring line of the AC main.
21. Avoid crossing water or sewer mains at highly acute angles. The smallest angle measure between utilities should be 45 to 90 degrees.
22. Where water main crosses above or below sanitary sewer, one full length of water pipe shall be centered for maximum joint separation.
23. At points where existing thrust blocking is found, minimum clearance between the concrete blocking and other buried utilities or structures shall be 5 feet.
24. Workers must follow confined space regulations and procedures when entering or doing work in City-owned confined spaces. Completed Permit must be given to the Utilities inspector prior to entry.
25. Manholes, catch basins, and vaults are considered to be permit-required confined spaces. Entry into these spaces shall be in accordance with Chapter 296-809 WAC.
26. When work is to occur in easements, the Contractor shall notify the easement grantor and the City in writing a minimum of 48 hours in advance of beginning work (not including weekends or holidays). Failure to notify the grantor and the City will result in a Stop Work Order being posted

until the matter is resolved to the satisfaction of the City. A written release from the easement grantor shall be furnished to the Utilities Inspector prior to permit sign-off.

27. The Contractor shall restore the Right-of-Way and existing public utility easement(s) after construction to a condition equal or better than condition prior to entry. Contractor shall furnish a signed release from all affected property owners after restoration has been completed.

THRUST BLOCK - TABLE						
MINIMUM BEARING AREA AGAINST UNDISTURBED SOIL, SQUARE FEET						
PIPE SIZE, IN	PRESSURE, PSI	A	B	C	D	E
4	250	2.2	1.6	1.2	0.6	0.3
6	250	5.0	3.5	2.7	1.4	0.7
8	250	8.9	6.3	4.8	2.5	1.2
10	250	13.9	9.8	7.5	3.8	1.9
12	250	20.0	14.1	10.8	5.5	2.8
14	250	27.2	19.2	14.7	7.5	3.8
16	250	35.5	25.1	19.2	9.8	4.9
18	250	45.0	31.8	24.3	12.4	6.2
20	250	55.5	39.3	30.1	15.3	7.7
24	250	80.0	56.5	43.3	22.1	11.1



SAFE BEARING LOADS IN LB./SQ. FT.
THE SAFE BEARING LOADS GIVEN IN THE FOLLOWING TABLE ARE FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 2 FEET.

<u>SOIL</u>	<u>SAFE BEARING LOAD LB. PER SQ. FT.</u>
* MUCK, PEAT, ETC.	0
SOFT CLAY	1,000
SAND	2,000
SAND & GRAVEL	3,000
SAND & GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

* IN MUCK OR PEAT, ALL THRUSTS SHALL BE RESTRAINED BY PILES OR TIE RODS TO SOLID FOUNDATIONS OR BY REMOVAL OF MUCK OR PEAT AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THRUST.

NOTES:

1. SQUARE FEET OF CONCRETE THRUSTS – BLOCK AREA BASED ON SAFE BEARING LOAD OF 2000 POUNDS PER SQUARE FOOT.
2. AREAS MUST BE ADJUSTED FOR OTHER SIZE PIPE, PRESSURES & SOIL CONDITIONS.
3. CONCRETE BLOCKING SHALL BE CAST IN PLACE & HAVE MINIMUM OF 1/4 SQUARE FOOT BEARING AGAINST THE FITTING.
4. BLOCK SHALL BEAR AGAINST FITTINGS ONLY & SHALL BE CLEAR OF JOINTS TO PERMIT TAKING UP OR DISMANTLING JOINT.
5. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.
6. FITTINGS AND BOLTS TO BE COVERED WITH VISQUEEN PRIOR TO CONCRETE PLACEMENT.



CITY OF NORTH BEND

CONCRETE BLOCKING

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-1



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APPROVED:

MARK RIGOS, P.E.

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MAY 2018

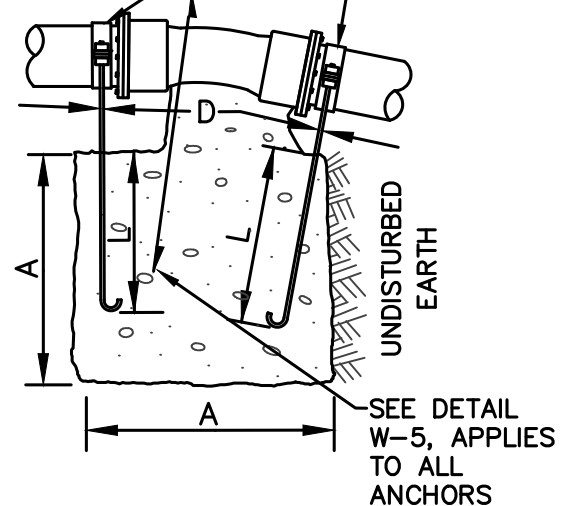
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W-2

VERTICAL BLOCKING FOR 11 1/4°-22 1/2°-30° BENDS					
PIPE SIZE	V B	CU FT	A	D	L
4"	11 1/4°	8	2.0'	3/4"	1.5'
	22 1/2°	11	2.2'		2.0'
	30°	17	2.6'		
6"	11 1/4°	11	2.2'	3/4"	2.0'
	22 1/2°	25	2.9'		
	30°	41	3.5'		
8"	11 1/4°	16	2.5'	3/4"	2.0'
	22 1/2°	47	3.6'		
	30°	70	4.1'	3/4"	2.5'
12"	11 1/4°	32	3.2'	3/4"	2.0'
	22 1/2°	88	4.5'	7/8"	3.0'
	30°	132	5.1'		
16"	11 1/4°	70	4.1'	7/8"	3.0'
	22 1/2°	184	5.7'	1 1/8"	4.0'
	30°	275	6.5'	1 1/4"	
20"	11 1/4°	91	4.5'	7/8"	3.0'
	22 1/2°	225	6.1'	1 1/4"	4.0'
	30°	330	6.9'	1 3/8"	4.5'
24"	11 1/4°	128	5.0'	1"	3.5'
	22 1/2°	320	6.8'	1 3/8"	4.5'
	30°	480	7.9'	1 5/8"	5.5'
VERTICAL BLOCKING FOR 45° BENDS					
4"	45°	30	3.1'	3/4"	2.0'
6"		68	4.1'		
8"		123	5.0'		
12"		232	6.1'	3/4"	2.5'
16"		478	7.8'	1 1/8"	4.0'
20"		560	8.2'	1 1/4"	
24"		820	9.4'	1 3/8"	4.5'

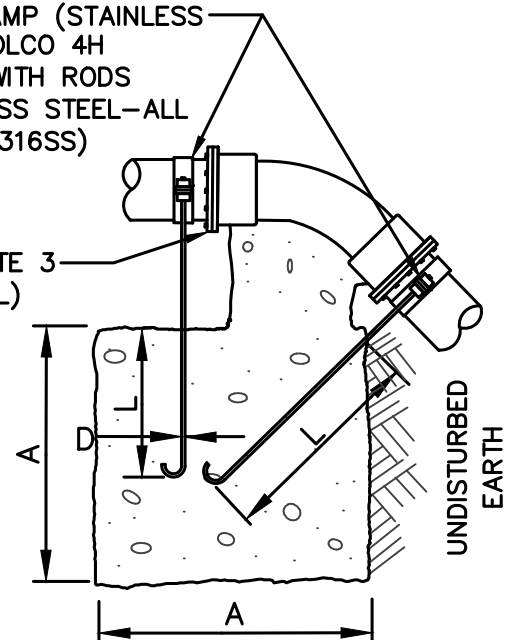
PIPE CLAMP (STAINLESS
STEEL TOLCO 4H
316SS) WITH RODS
(STAINLESS STEEL-ALL
THREAD 316SS)



VERTICAL BLOCKING
FOR 11 1/4°, 22 1/2°, & 30° BENDS

PIPE CLAMP (STAINLESS
STEEL TOLCO 4H
316SS) WITH RODS
(STAINLESS STEEL-ALL
THREAD 316SS)

SEE NOTE 3
(TYPICAL)



VERTICAL BLOCKING
FOR 45° BENDS

NOTES:

1. CONCRETE BLOCKING BASED ON 200 PSI PRESSURE AND 2500 PSI CONCRETE.
2. LEAVE BLOCK OPEN OR SHEETED 24 HOURS MINIMUM.
3. MEGA-LUG FITTINGS.
4. FITTINGS AND BOLTS TO BE COVERED WITH VISQUEEN PRIOR TO CONCRETE PLACEMENT.



CITY OF NORTH BEND

VERTICAL BLOCKING

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

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W-3



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W-4



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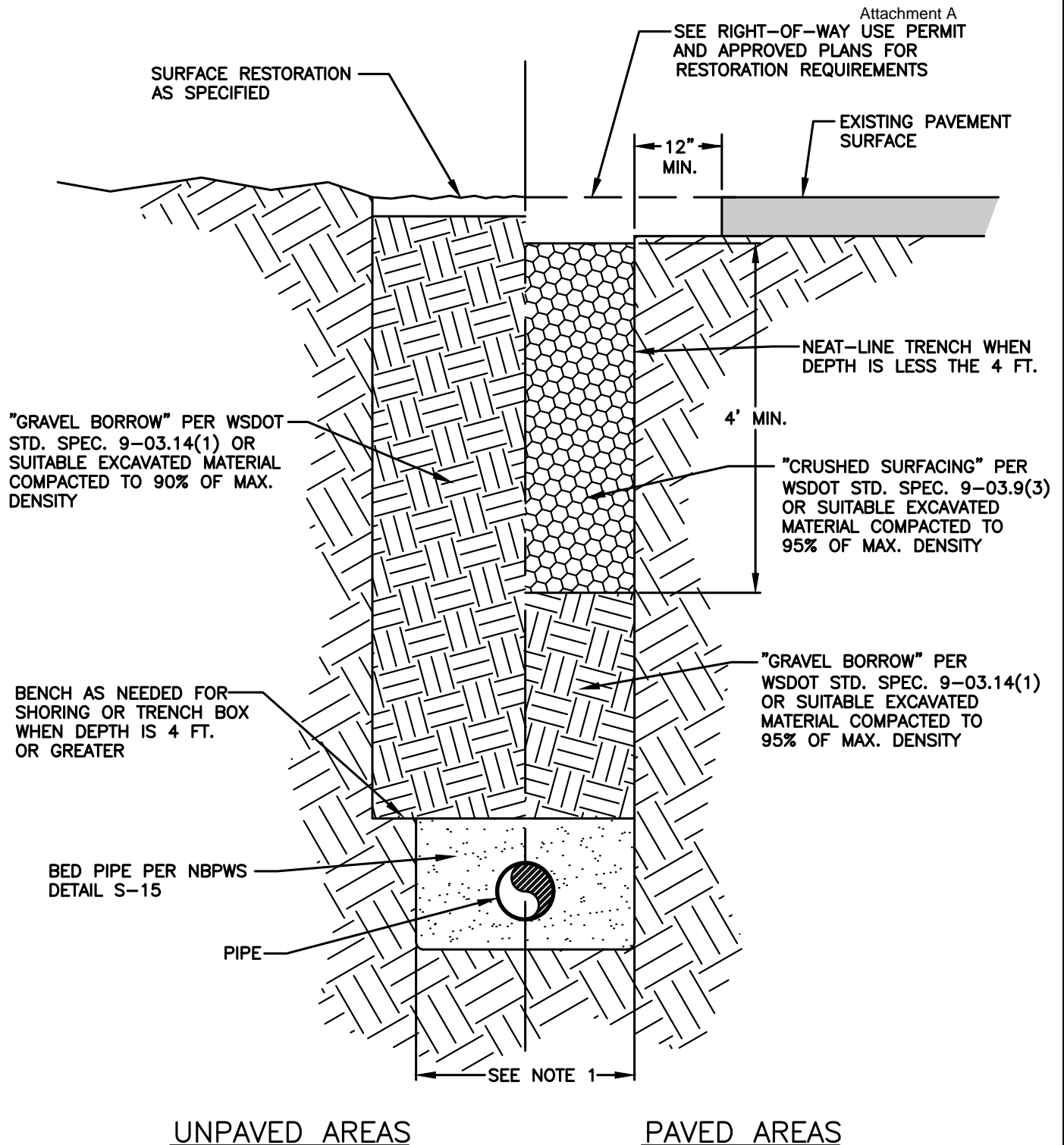
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DATE

DWG. NO.

W-5



NOTES:

- FOR PIPES 15-INCHES AND UNDER, TRENCH WIDTH=I.D. + 30-INCHES. FOR PIPES 18-INCHES AND OVER, TRENCH WIDTH=(1.5 x I.D.)+18-INCHES. PER SECTION 2-09.4, "MEASUREMENT", OF THE WSDOT STANDARD SPECIFICATIONS.
- EXCAVATIONS OVER 4' DEEP SHALL COMPLY WITH THE SAFETY STANDARD DISCRIBED IN CHAPTER 296-155 - PART N OF THE WAC.
- SEE "BEDDING, BACKFILL AND COMPACTION" IN THE STANDARDS FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.



CITY OF NORTH BEND

TYPICAL TRENCH DETAIL

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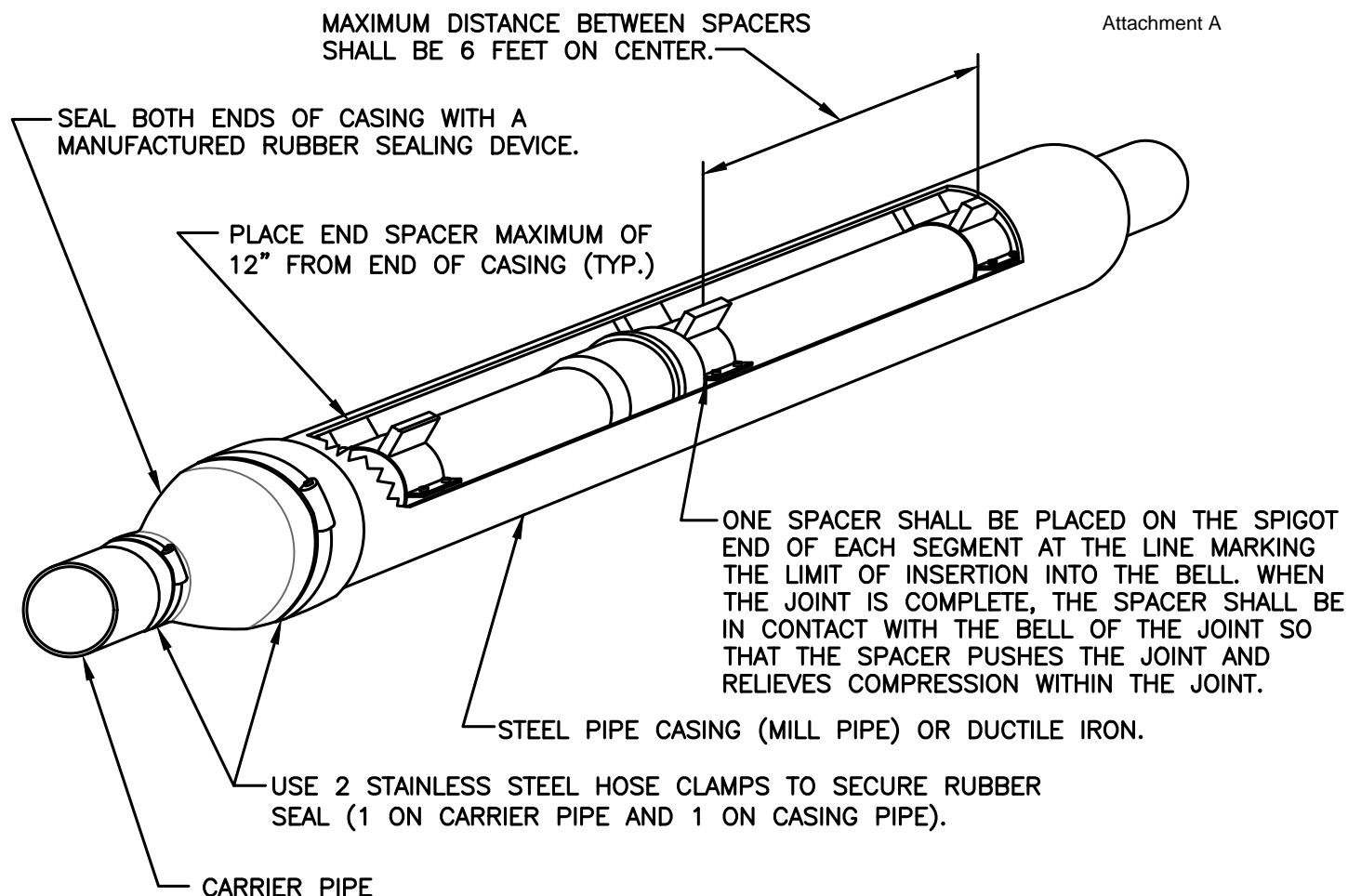
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W-6



CARRIER PIPE DIAMETER	4"	6"	8"	10"	12"
CASING DIAMETER	10"	12"	14"	16"	20"
STEEL CASING THICKNESS	0.25"	0.25"	0.25"	0.25"	0.25"
SPACER BAND WIDTH	8"	8"	8"	8"	8"

NOTES:

1. RUNNER HEIGHT SHALL BE SIZED TO PROVIDE:
 - A. MIN. 0.75" BETWEEN CARRIER PIPE BELL AND CASING PIPE WALL AT ALL TIMES.
 - B. MIN. 1.00" CLEARANCE BETWEEN RUNNERS AND TOP OF CASING WALL AT ALL TIMES.
2. MINIMUM RUNNER WIDTH SHALL BE 2 INCHES.
3. STEEL CASING DIAMETERS ARE "OUTSIDE DIAMETER" FOR 16" AND LARGER. .
4. SPACER BAND WIDTH SHALL BE 12" FOR CARRIER PIPES THAT ARE 36" DIAMETER OR GREATER.
5. FOR STEEL CASING, PROVIDE SHOP-APPLIED ANTI-CORROSIVE COATING ON CASING EXTERIOR CONFORMING TO AWWA 210. MINIMUM COATING 16 MILS DFT (DO NOT EXCEED MANUFACTURER'S MAXIMUM THICKNESS). PRODUCT SHALL BE EQUAL TO TNE MEC HI-BUILD TNE-M-TAR SERIES 46H-413.



CITY OF NORTH BEND

CASING INSTALLATION

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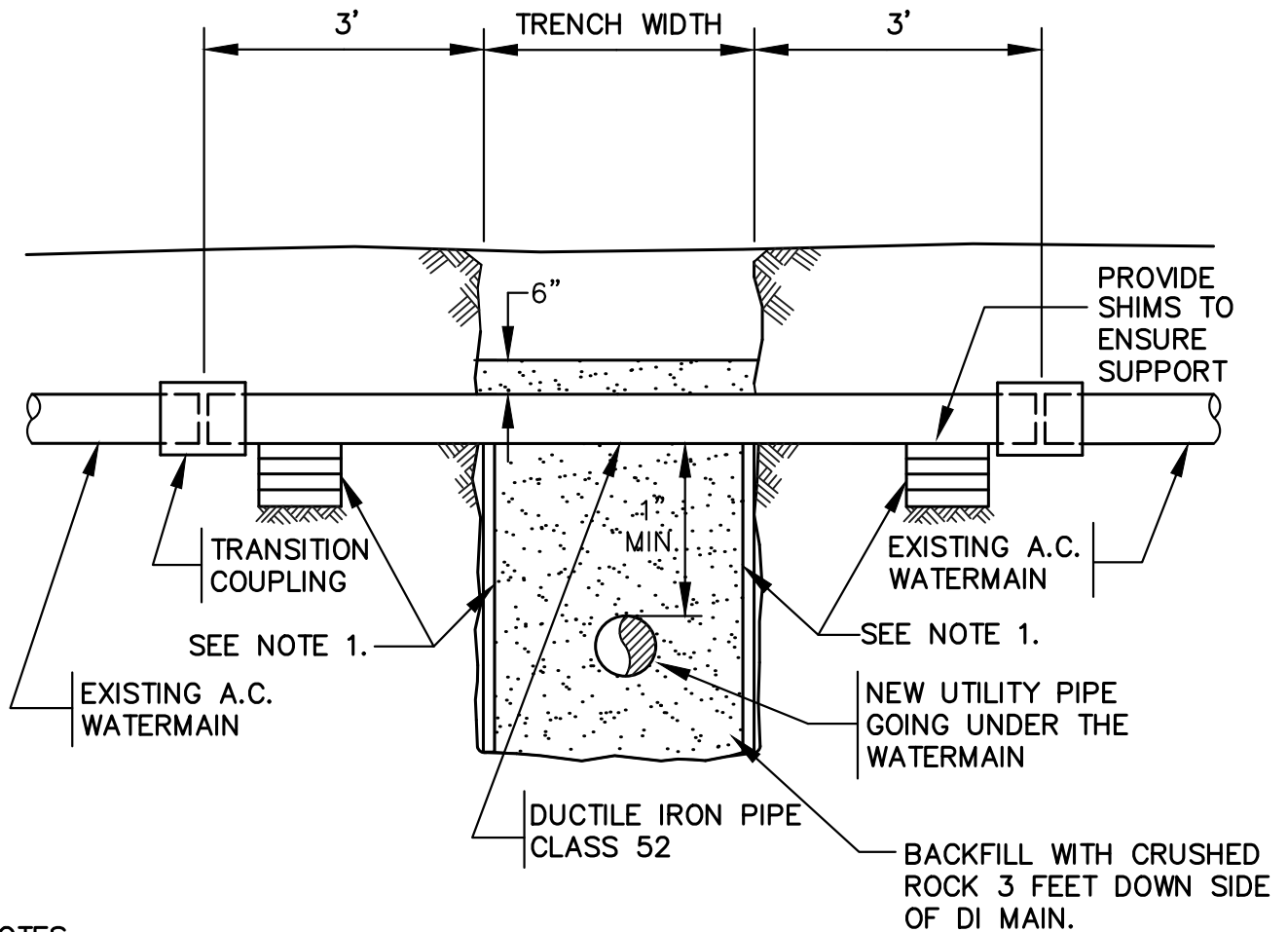
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MAY 2018

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DWG. NO.

W-7

**NOTES:**

1. D.I. PIPE SHALL REST ON FIRM BEARING EARTH: SHORE TRENCH WALL UNDER WATERMAIN AS SHOWN, OR SUPPORT PIPE WITH PATIO BLOCKS (8"x16"x 2"). STACK BLOCKS AS REQUIRED TO REST ON FIRM BEARING SOIL.
2. THE CONTRACTOR IS REQUIRED TO MAINTAIN WORKERS' EXPOSURE TO ASBESTOS MATERIAL AT OR BELOW THE LIMIT PRESCRIBED IN WAC 296-62-07705.
3. ASBESTOS CEMENT PIPE SHALL BE CUT WITH A HAND-OPERATED CARBIDE BLADE CUTTER WITH CONTROLLED FLOWING WATER.
4. CONTAMINATED CLOTHING SHALL BE LEFT AND BURIED IN TRENCH, OR TRANSPORTED IN SEALED IMPERMEABLE BAGS & LABELED IN ACCORDANCE WITH WAC 296-62-07721. ASBESTOS CEMENT PIPE SHALL BE LEFT AND BURIED IN TRENCH.



CITY OF NORTH BEND
TYPICAL A.C. WATERMAIN
CROSSING REPLACEMENT DETAIL

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DWG. NO.

W-8



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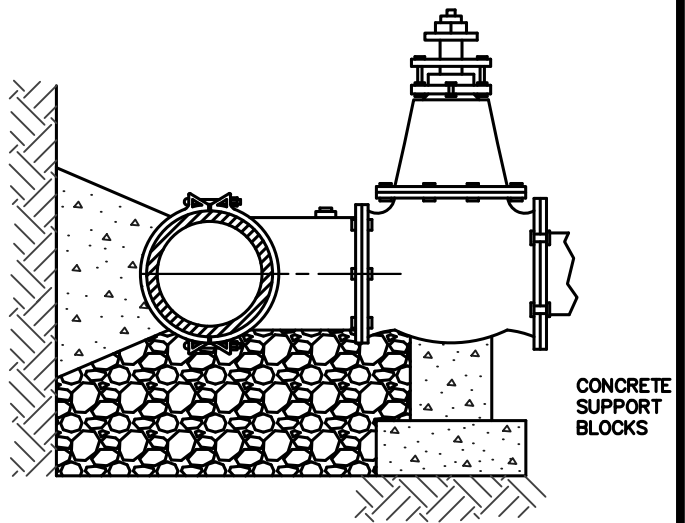
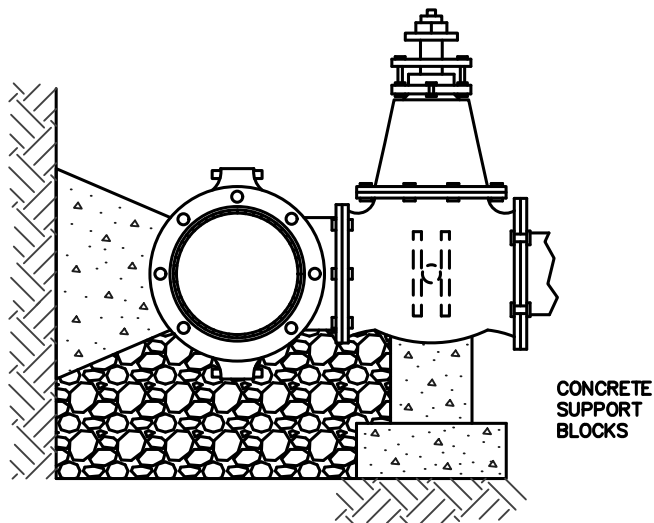
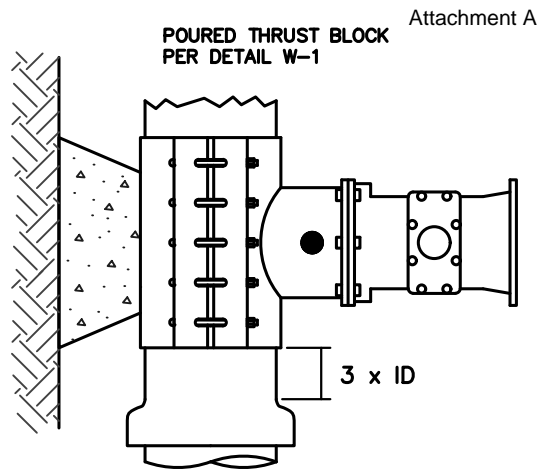
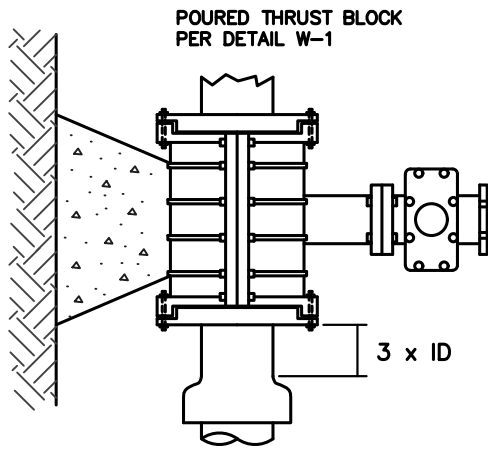
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DWG. NO.

W-9



DUCTILE IRON TAPPING TEE MECHANICAL JOINT SLEEVE

INSTALLED ON ASBESTOS CEMENT PIPE,
CAST IRON PIPE AND DUCTILE IRON PIPE.

STAINLESS STEEL OR STEEL TAPPING TEE

STAINLESS STEEL TAPPING TEE

INSTALLED ON ASBESTOS CEMENT PIPE,
CAST IRON PIPE AND DUCTILE IRON
PIPE.

STEEL TAPPING TEE

INSTALLED ON DUCTILE IRON PIPE ONLY.

NOTES:

1. STAINLESS STEEL TAPPING TEES SHALL HAVE FULL CIRCLE SEAL. BOLTS AND NUTS SHALL BE STAINLESS STEEL.
2. STEEL TAPPING TEES SHALL BE EPOXY COATED. BOLTS AND NUTS SHALL BE COR-TEN, OR STAINLESS STEEL.
3. ALL TEES AND VALVES TO BE WATER TESTED BEFORE TAP.
4. TAPPING TEE MAY BE SIZE ON SIZE. TAP SHALL BE AT LEAST 2" SMALLER DIAMETER THAN THE EXISTING MAIN.
5. TAPPING TEE NOT ALLOWED FOR MAIN SMALLER THAN 3".
6. TAPPING TEES PERMITTED WITH CITY OF NORTH BEND'S APPROVAL ONLY.



CITY OF NORTH BEND

TAPPING TEES

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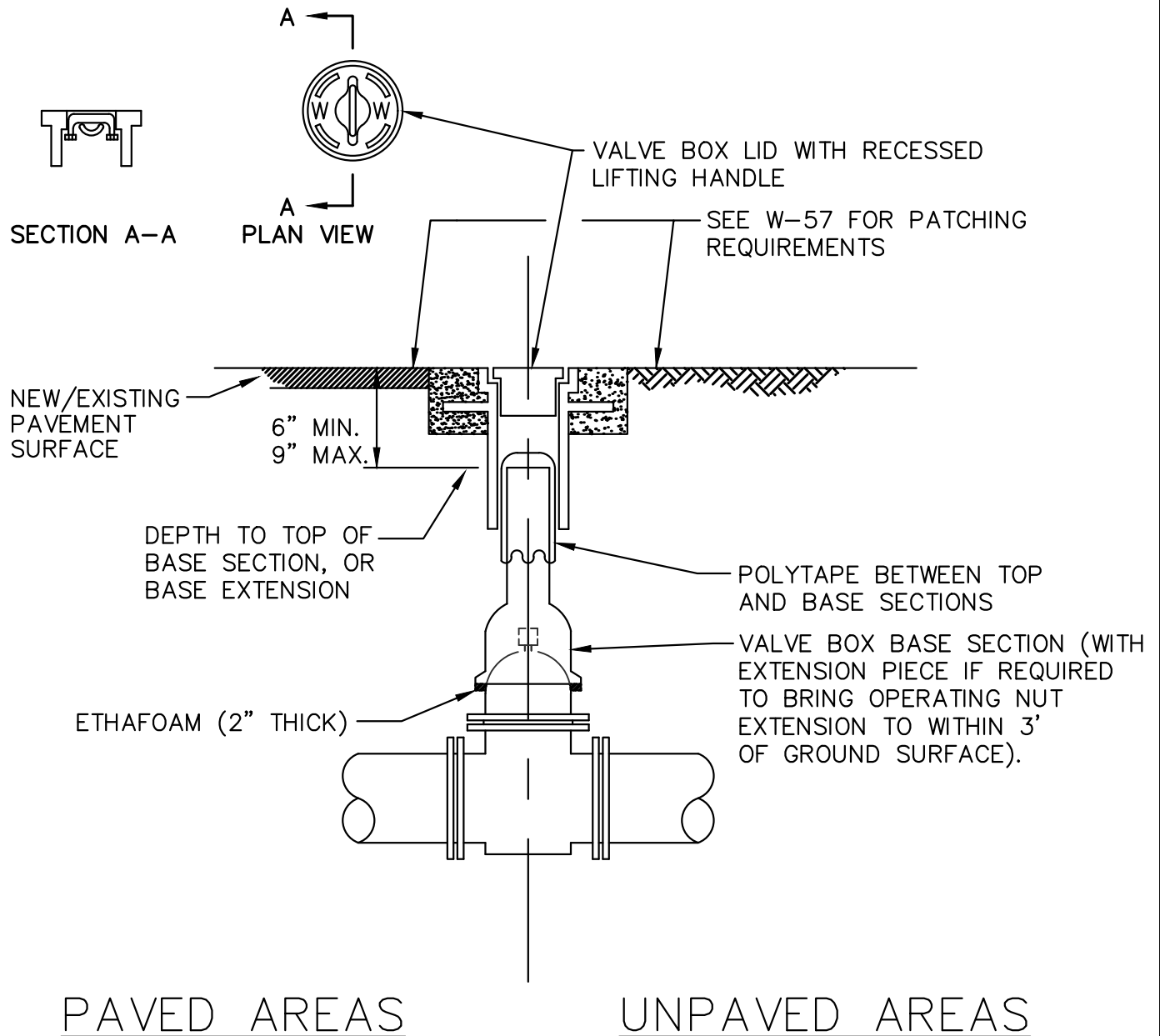
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DWG. NO.

W-10

**NOTES:**

1. ALL PARTS SHALL BE CAST OR DUCTILE IRON AND COATED WITH ASPHALTIC VARNISH.
2. OLYMPIC FOUNDRY INC: #VB045 LID, TOP AND BASE SECTION.
3. OLYMPIC FOUNDRY OR EQUIVALENT: TOP SECTION AND LID #045 WITH STANDARD BASE.
4. 12" ADJUSTING SLEEVE #044A.



CITY OF NORTH BEND

VALVE BOX INSTALLATION

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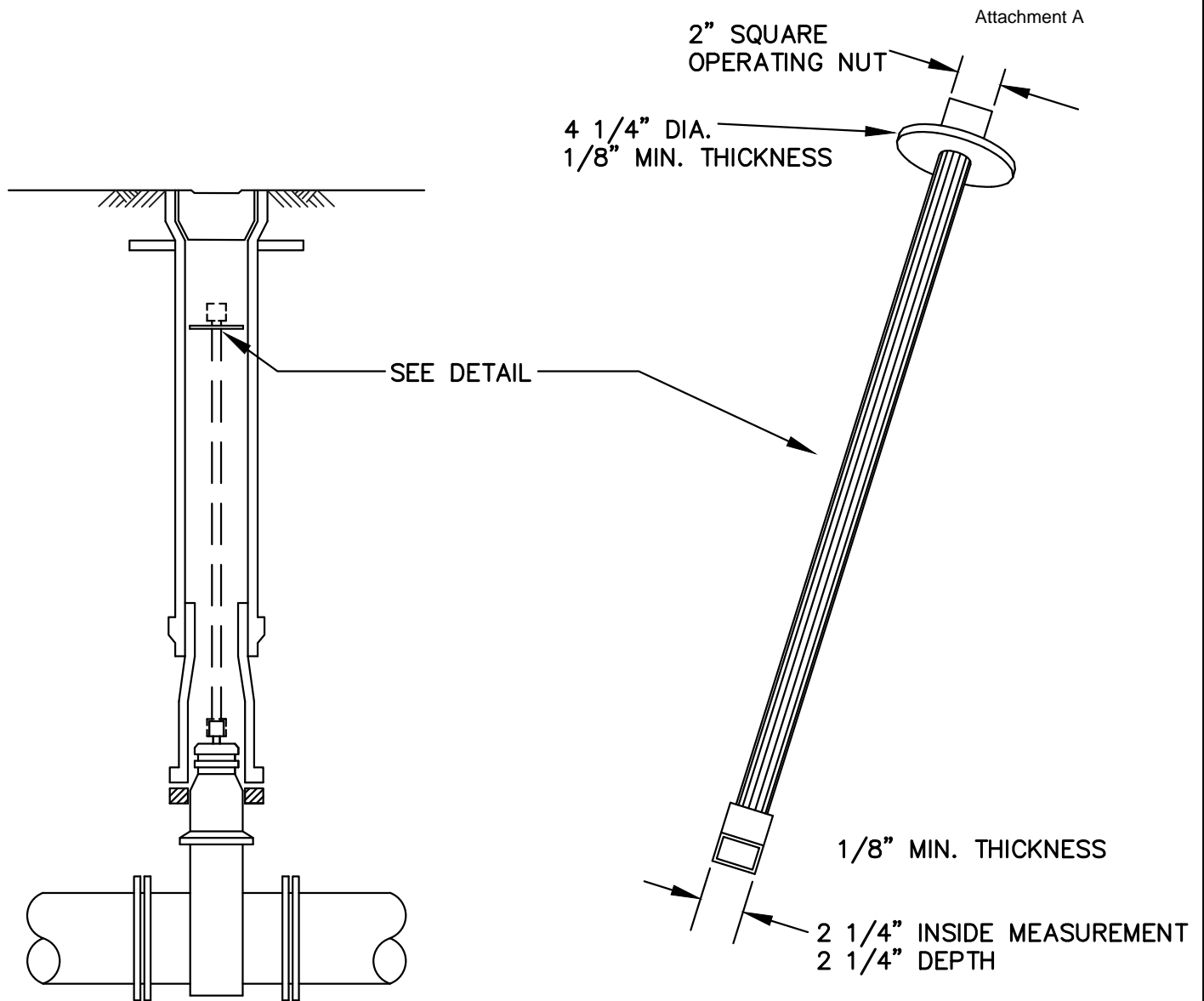
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W-11



VALVE OPERATING EXTENSION

EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN THREE (3) FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF ONE (1) FOOT LONG. ONLY ONE EXTENSION TO BE USED PER VALVE.

NOTES:

1. ALL EXTENSIONS ARE TO BE MADE OF STEEL, SIZED AS NOTED, AND HOT DIPPED GALVANIZED.
2. INSTALL EXTENSIONS PERPENDICULAR TO THE WATER LINE VERTICAL ALIGNMENT.



CITY OF NORTH BEND
VALVE OPERATING EXTENSION

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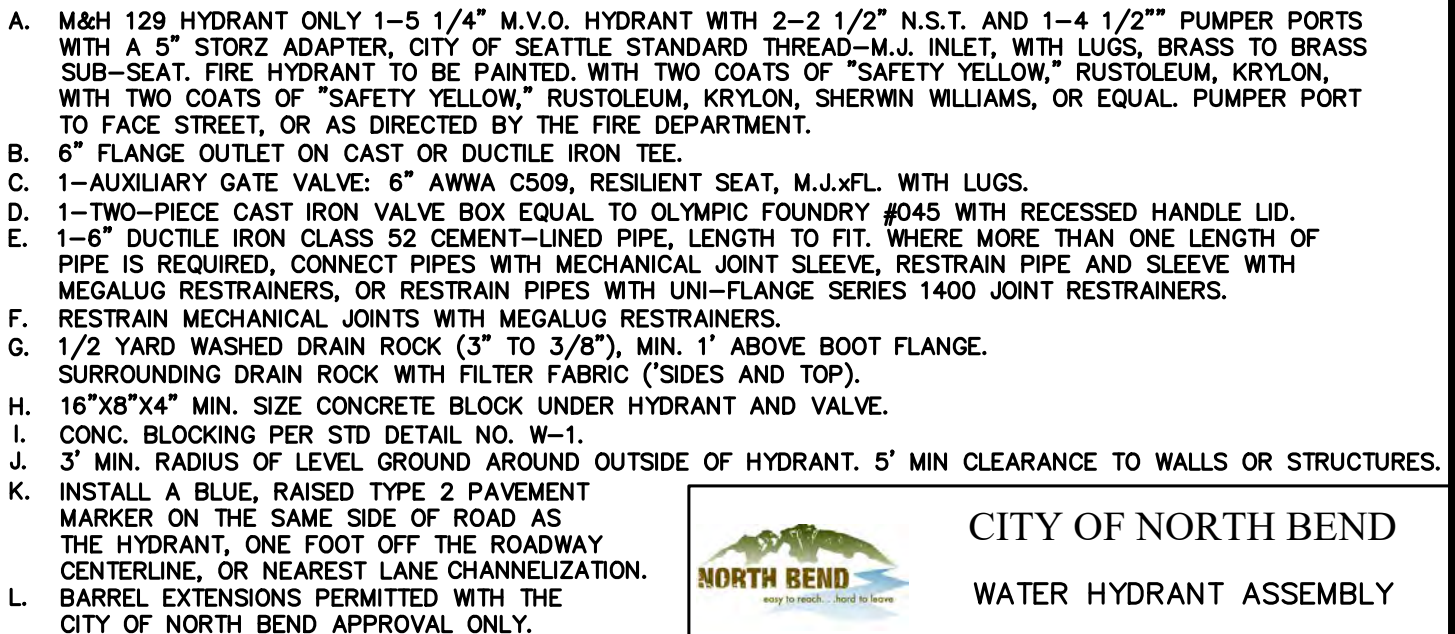
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W-12



CITY OF NORTH BEND

WATER HYDRANT ASSEMBLY

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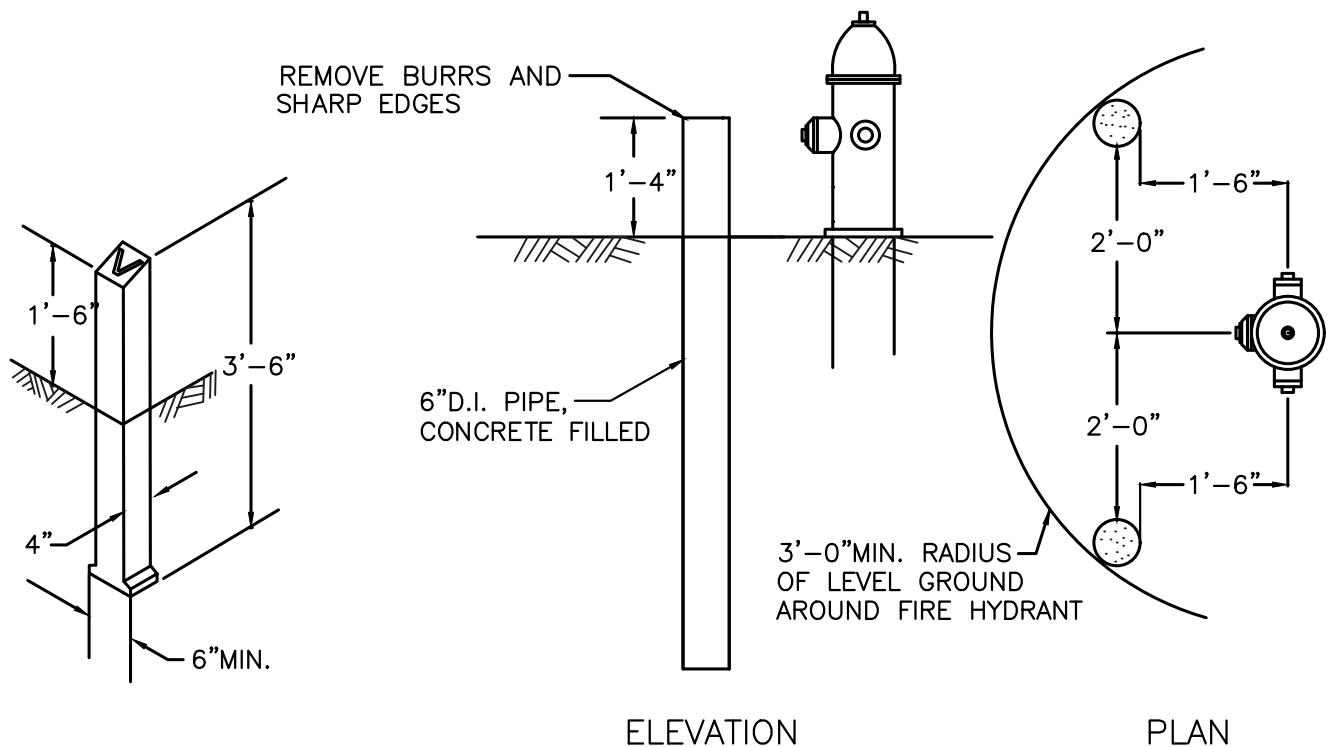
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DATE _____

DWG. NO.

W-13

VALVE MARKER POSTFIRE HYDRANT GUARD POSTNOTES:

1. GUARD POST SHALL BE 6" CL.52 D.I. PIPE, 6' LONG, FILLED WITH CONCRETE. PAINT WITH TWO COATS OF "SAFETY YELLOW" RUSTOLEUM, KRYLON, SHERWIN WILLIAMS OR EQUAL.
2. CONCRETE VALVE MARKER POST SHALL BE EQUAL TO FOG TITE METER SEAL COMPANY. PAINT WITH TWO COATS OF RUST-OLEUM HIGH GLOSS YELLOW PAINT. PAINT DISTANCE FROM THE VALVE MARKER TO THE VALVE ON THE POST WITH BLACK ENAMEL PAINT.
3. VALVE MARKER POST TO BE USED FOR ALL MAINLINE VALVES OUTSIDE PAVED AREAS.
4. GUARD POSTS ONLY REQUIRED WHERE HYDRANT AND TRAFFIC ARE NOT PHYSICALLY SEPARATED (E.G. VERTICAL CURB)



CITY OF NORTH BEND
FIRE HYDRANT GUARD POST &
VALVE MARKER POST

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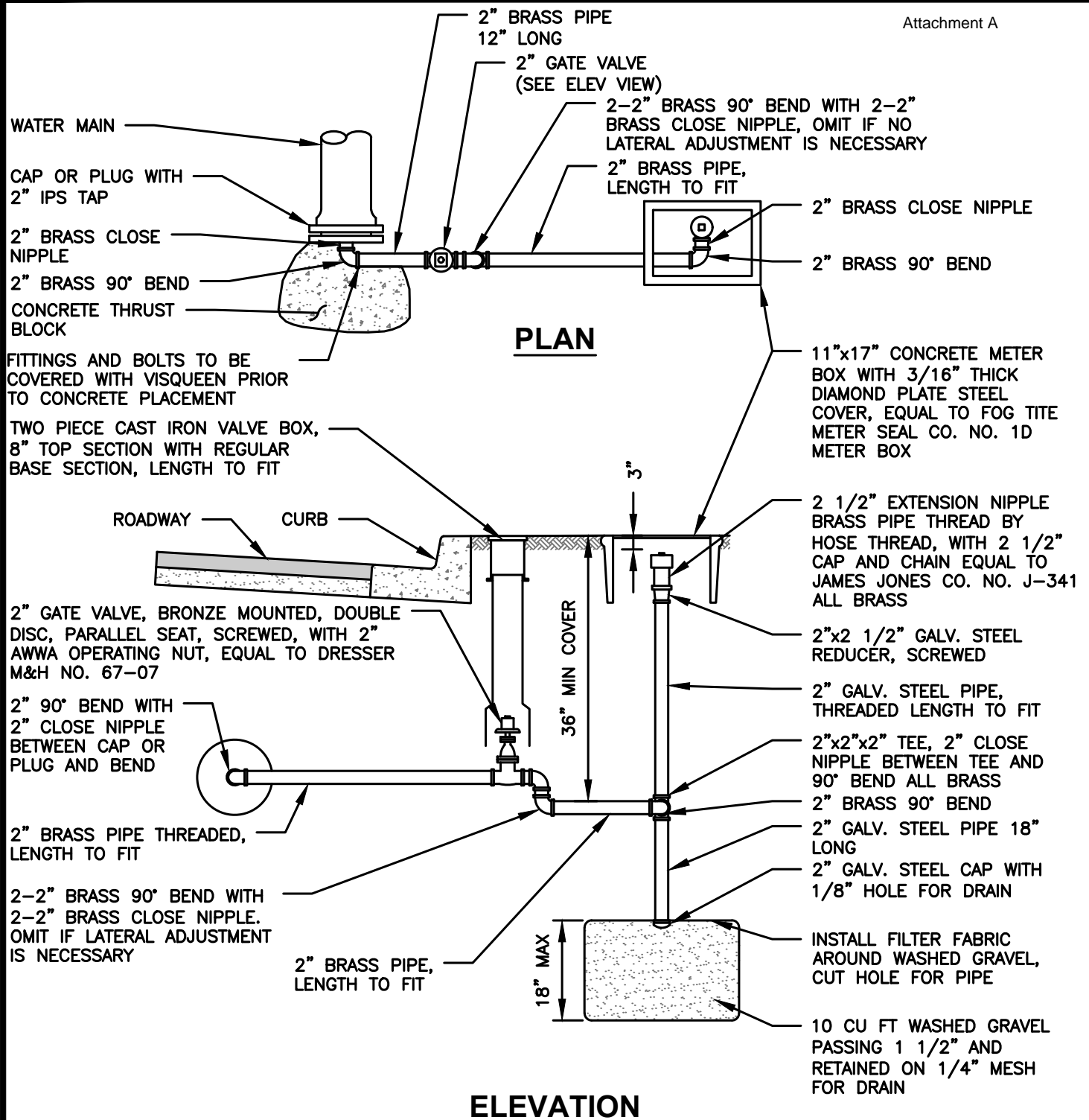
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DATE

DWG. NO.

W-14



CITY OF NORTH BEND

2-INCH BLOW-OFF ASSEMBLY
END-OF-LINE

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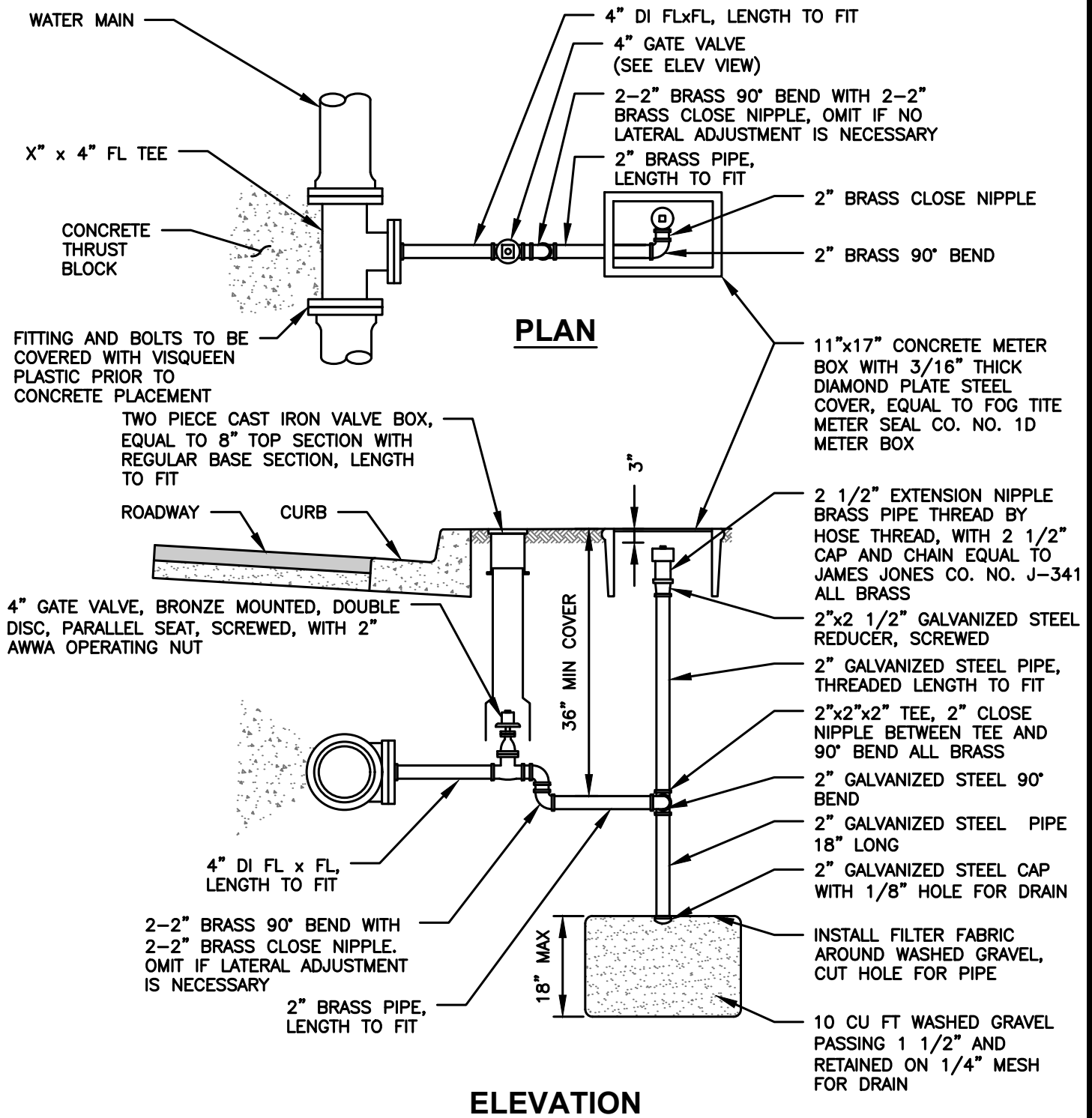
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DWG. NO.

W-15A



CITY OF NORTH BEND

2-INCH BLOW-OFF ASSEMBLY
ON MAIN LINE

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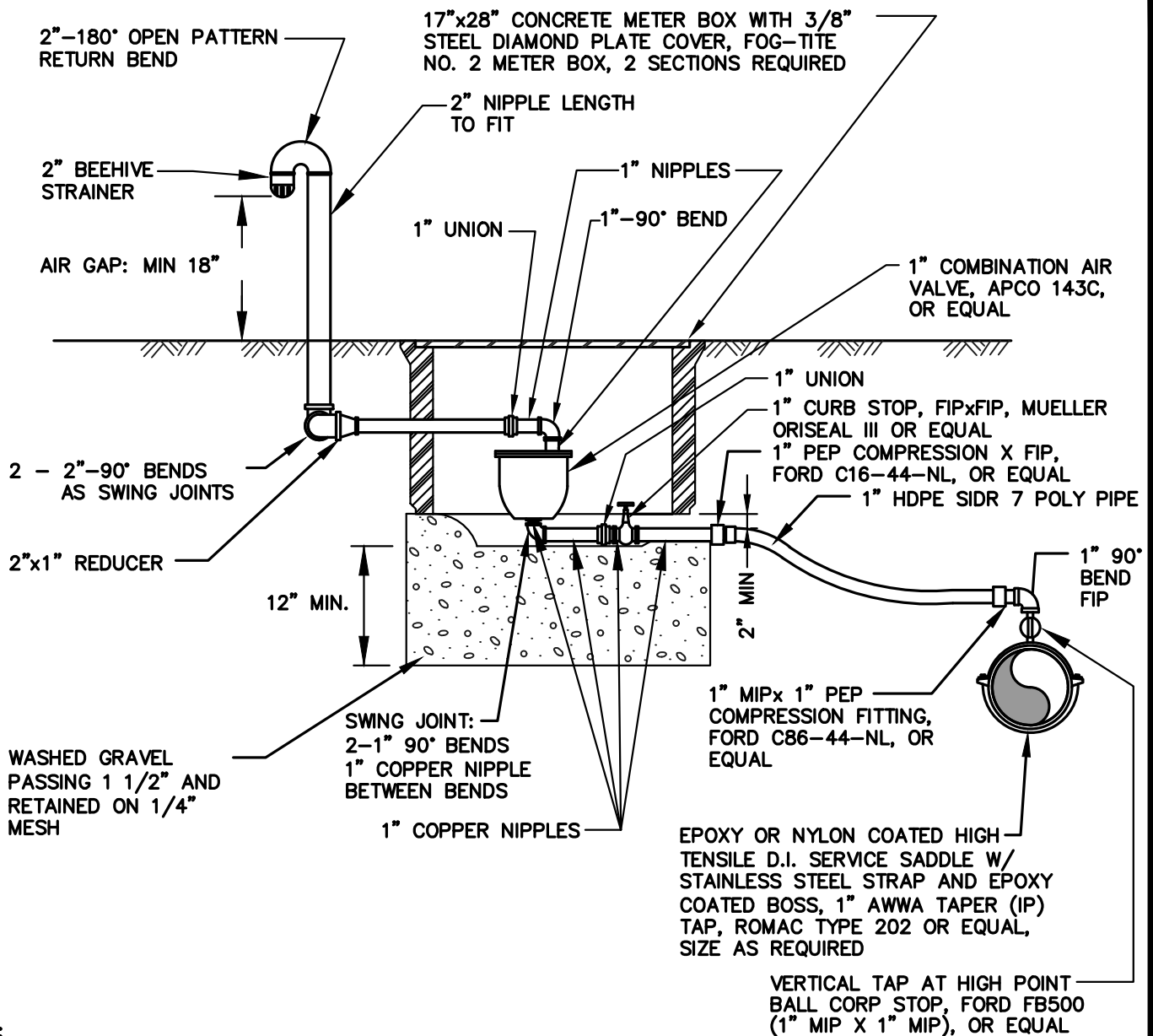
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DATE

DWG. NO.

W-15B



NOTES:

1. ALL FITTINGS TO BE BRASS OR COPPER FROM WATER MAIN TO 1" AIR & VACUUM ASSEMBLY.
2. TUBING FROM MAIN TO AIR VAC SHALL BE CONTINUOUSLY RISING WITHOUT INTERMEDIATE HIGH POINTS.
3. AIR & VACUUM RELEASE VALVE ASSEMBLY MUST BE INSTALLED AT HIGHEST POINT OF LINE. IF HIGH POINT FALLS IN A LOCATION WHERE ASSEMBLY CANNOT BE INSTALLED, PROVIDE ADDITIONAL DEPTH OF LINE TO CREATE HIGH POINT AT A LOCATION WHERE ASSEMBLY CAN BE INSTALLED.
4. LOCATE AIR & VACUUM METER BOX OUTSIDE OF TRAFFIC AREAS, BEHIND CURB.
5. ALL FITTINGS TO BE GALVANIZED PIPE ABOVE AIR VAC, INCLUDING THE STANDPIPE.
6. GALVANIZED PIPE ABOVE GRADE TO BE PAINTED WITH 2 COATS OF RUSTOLEUM HIGH GLOSS BLUE PAINT.



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1-INCH AIR & VACUUM RELEASE VALVE ASSEMBLY

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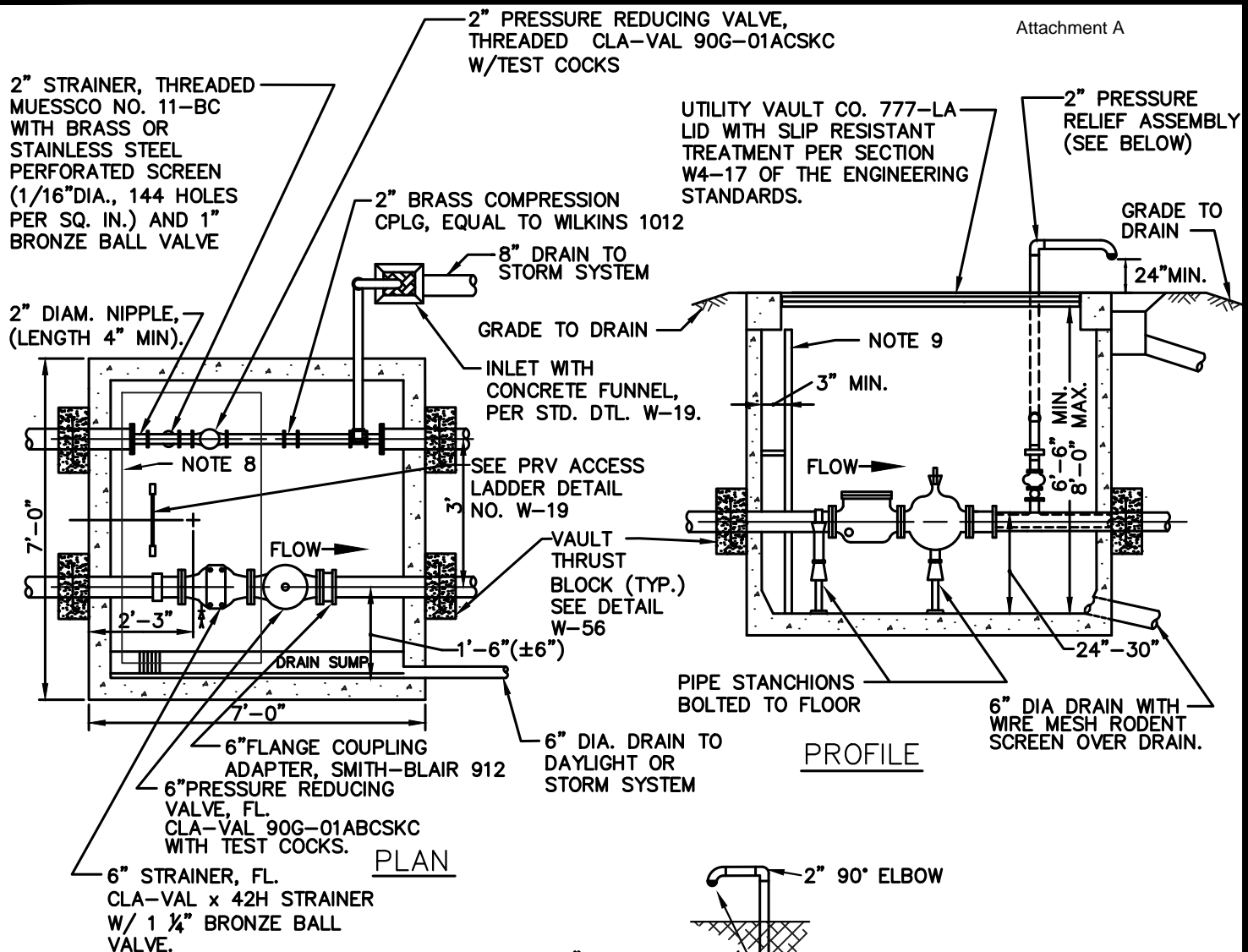
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JULY 2020

DATE _____

DWG. NO.

W-16

**NOTES:**

1. SIZING OF VALVES WILL BE MODIFIED FOR OTHER SIZES OF PIPE.
2. GALVANIZED LADDER TO BE SECURED TO VAULT PER STD. DTL. NO. W-19.
3. ALL P.R.V.s SHALL HAVE OPENING/CLOSING SPEED CONTROLS, EPOXY COATED BODY AND VALVE POSITION INDICATOR, CLA-VAL X101.
4. PILOT CONTROLS SHALL BE ON SIDE OF P.R.V. FACING INTERIOR OF VAULT TO PROVIDE EASY ACCESS.
5. ALL CLA-VAL PRVs AND PRESSURE RELIEF VALVES SHALL BE EQUIPPED W/STAINLESS STEEL TRIM (SEAT, STEM & COVER BEARING).
6. SEAL ALL PIPE PENETRATIONS THROUGH VAULT W/ LINK SEAL MODULAR SEALS.
7. PRESSURE RELIEF DISCHARGE DOWNSPOUT SHALL DIRECT WATER TOWARDS CENTER OF INLET GRATE.
8. HATCH AND LADDER PER DETAIL W-19.
9. PROVIDE LADDER-UP EXTENSION, BILCO MODEL LU-2, OR EQUAL.
10. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA AROUND HATCHES.
11. PROVIDE CAST OR FIELD CORE DRILLED HOLES THROUGH VAULT WALLS FOR PIPE PENETRATIONS.

2" PRESSURE RELIEF ASSEMBLY**CITY OF NORTH BEND****STANDARD PRESSURE
REDUCING STATION**

APPROVED:

MARK RIGOS, P.E.

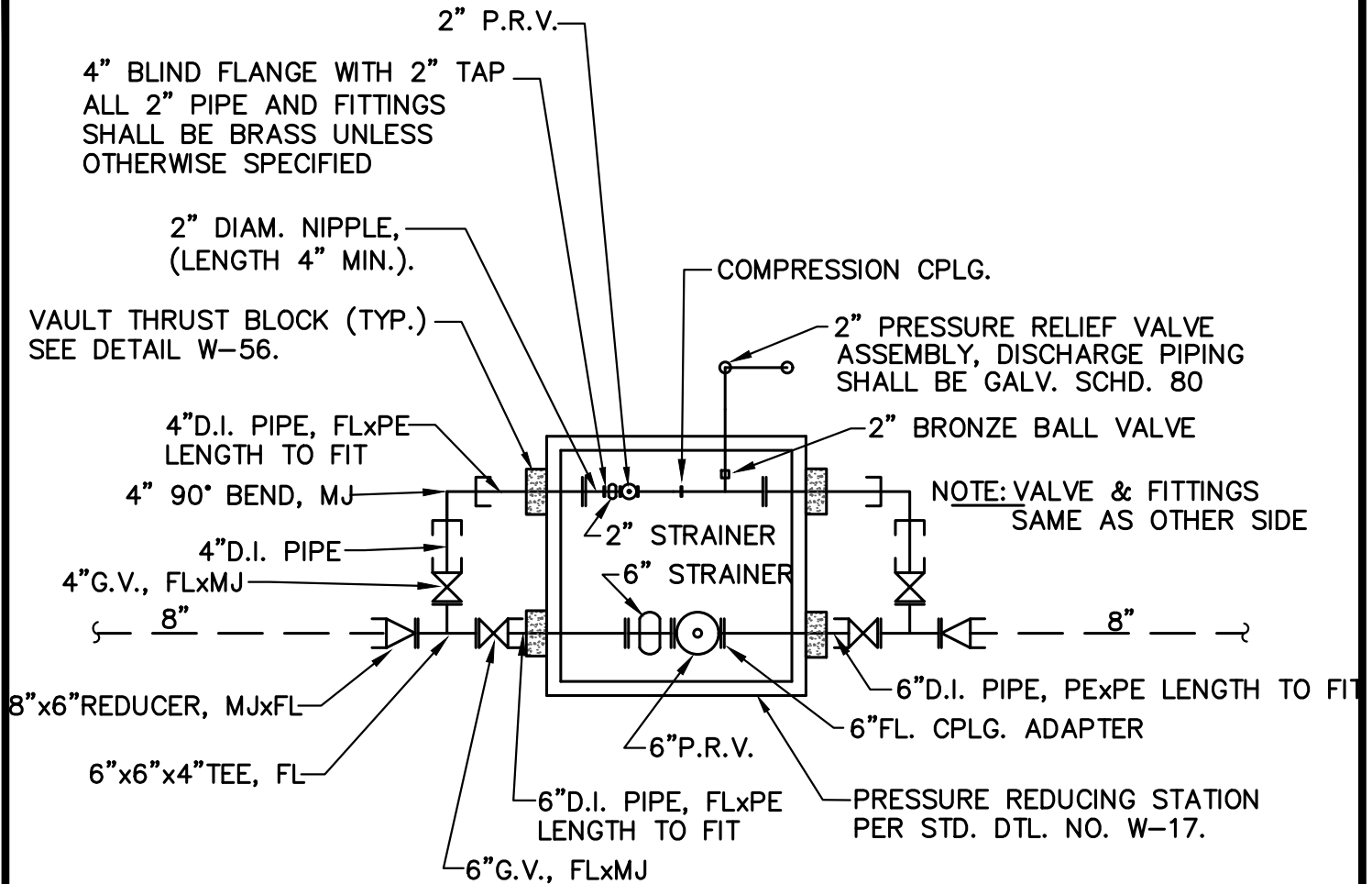
BY CITY

MAY 2018

DATE

DWG. NO.

W-17



NOTE: D.I. PIPING TO BE CLASS 52

NOTES:

1. SIZING OF VALVES WILL BE MODIFIED FOR OTHER SIZES OF PIPE.
2. GALVANIZED LADDER TO BE SECURED TO VAULT PER STD. DTL. NO. W-19.
3. ALL P.R.V.s SHALL HAVE OPENING/CLOSING SPEED CONTROLS, EPOXY COATED BODY AND VALVE POSITION INDICATOR, CLA-VAL X101.
4. PILOT CONTROLS SHALL BE ON SIDE OF P.R.V. FACING INTERIOR OF VAULT TO PROVIDE EASY ACCESS.
5. SEAL ALL PIPE PENETRATIONS THROUGH VAULT W/ LINK SEAL MODULAR SEALS.



CITY OF NORTH BEND

TYPICAL P.R.V. SCHEMATIC

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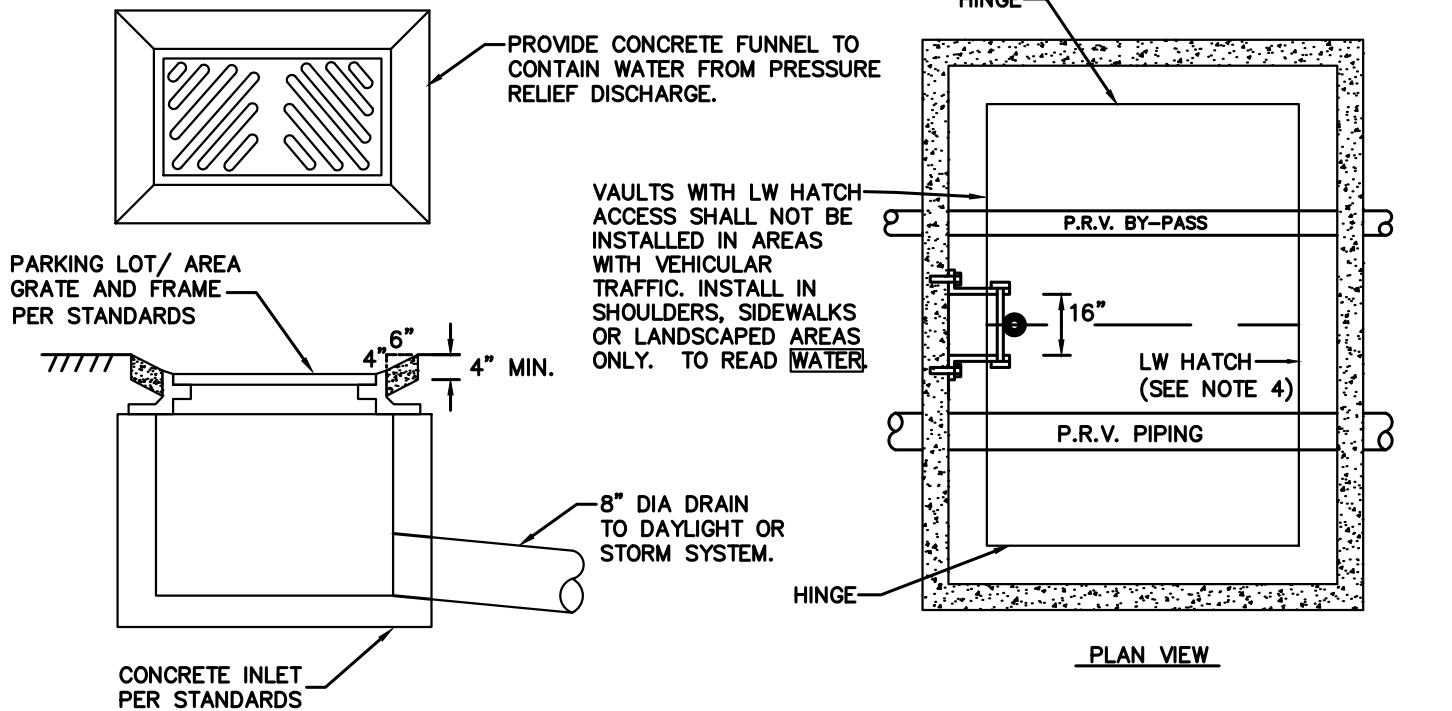
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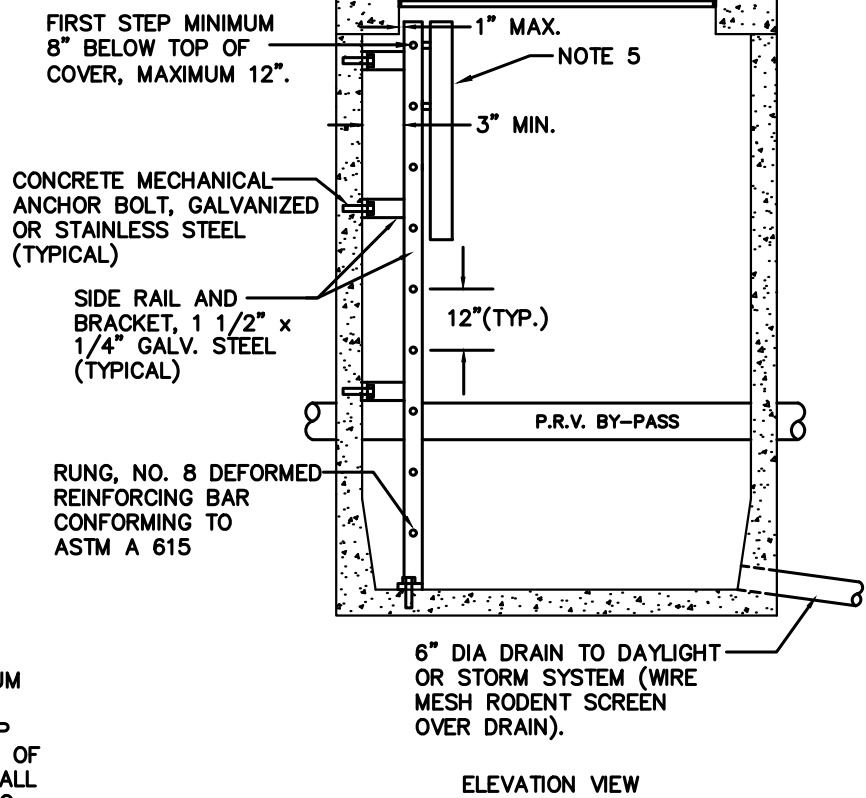
W-18



PRESSURE RELIEF DRAIN

NOTES:

1. LADDER TO BE SECURED TO VAULT WALL AT 3 LOCATIONS, ONE AT THE TOP, MIDDLE AND BOTTOM.
2. ALL LADDER PARTS TO BE GALVANIZED CONFORMING TO ASTM A 123
3. LOCATE PRESSURE RELIEF DRAIN OUTSIDE PEDESTRIAN AND TRAFFIC AREAS.
4. ACCESS HATCH SHALL BE LOCKING ALUMINUM LW PRODUCTS HDD 48"x60" DOUBLE DOOR MODEL RATED FOR H-30 LOADING WITH SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. HATCHES SHALL INCLUDE RECESSED PADLOCK HASP SIZED TO ACCEPT CITY OF BELLEVUE WATER DIVISION PADLOCKS (CONTACT LW PRODUCTS).
5. LADDER-UP ATTACHMENT REQUIRED ON ALL VAULT LADDERS. BILCO MODEL LU-2, OR EQUAL.
6. MANHOLE LID IS OPTIONAL ONLY WHEN STATION COVER IS LOCATED IN TRAFFIC.
7. DRAIN HATCH GUTTER DRAIN TO EXISTING CB OR DAYLIGHT.



CITY OF NORTH BEND

PRESSURE REDUCING STATION ACCESS LADDER AND PRESSURE RELIEF DRAIN

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MAY 2018

DATE

DWG. NO.

W-19



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MAY 2018

DATE

DWG. NO.

W-20



CITY OF NORTH BEND

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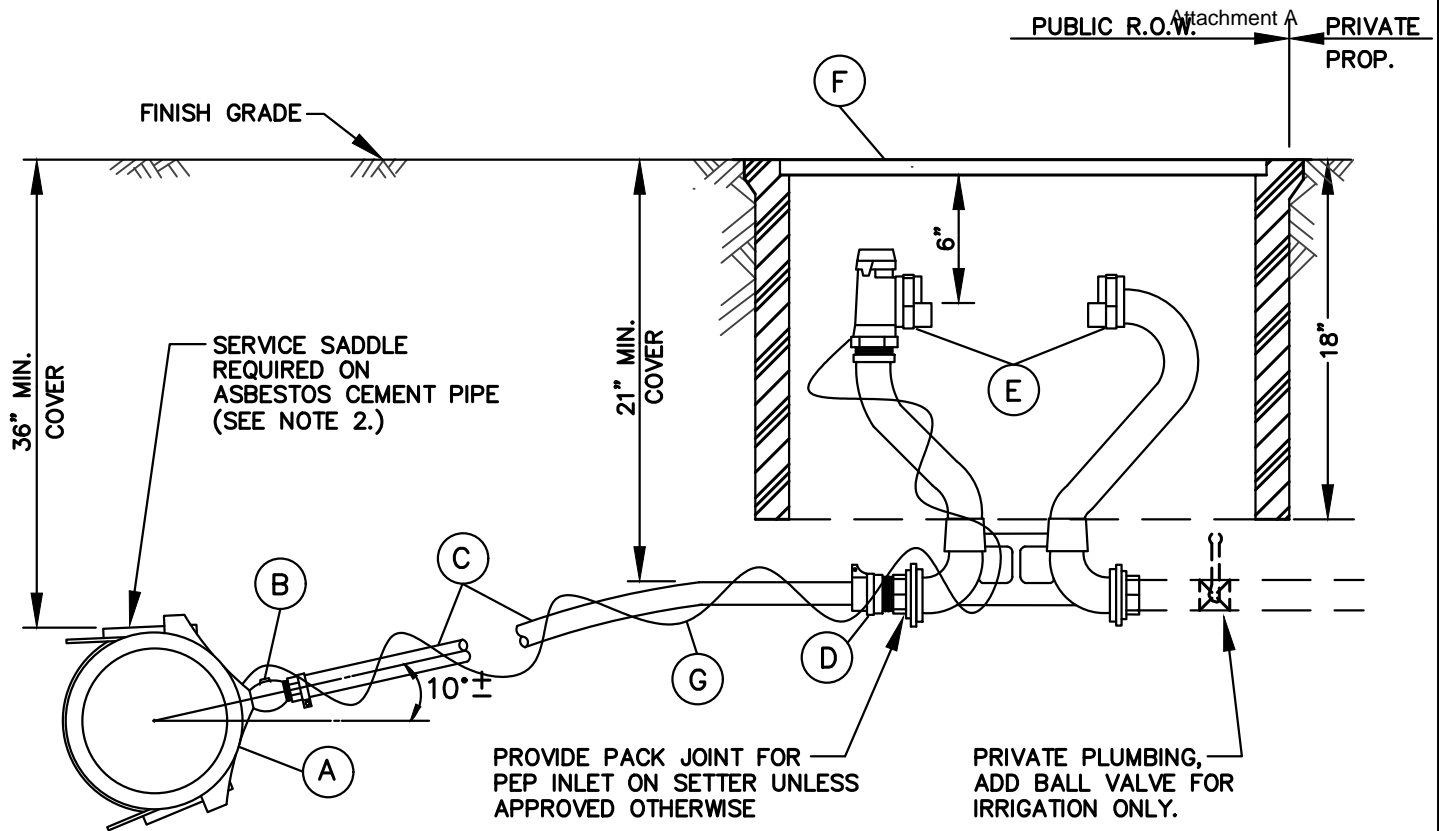
BY CITY

MAY 2018

DATE

DWG. NO.

W-21



HORIZONTAL METER SETTER INSTALLATION

- (A) EPOXY OR NYLON COATED HIGH TENSILE D.I. SERVICE SADDLE W/ STAINLESS STEEL STRAP AND EPOXY COATED BOSS, 1" MIP THREAD ROMAC TYPE 202 OR EQUAL, SIZE AS REQUIRED.
- (B) BALL CORPORATION STOP 1" MIP THREAD INLET BY 1" PACK JOINT OUTLET FOR PE PIPE FORD FB1101-4-NL BA
- (C) 1" HDPE 200 PSI SIDR 7.
- (D) COUPLING, 1" MALE IRON PIPE THREAD BY 3/4" OR 1" PACK JOINT (COMPRESSION FITTING) FOR POLYETHYLENE PIPE (IF APPROVED FOR USE)
- (E) 3/4" OR 1" METER SETTER WITH 3/4" OR 1" PACK JOINT PER PEP INLET (UNLESS APPROVED OTHERWISE) AND SINGLE CHECK VALVE WITH PADLOCK WINGS, OR EQUAL.
- (F) METER BOX, EQUAL TO FOGTITE B-10 (1") OR B-9 1/2 (3/4"), HINGED READER LID AND 2" TR/PL HOLE.
- (G) 12 AWG BLUE TRACER WIRE.

NOTES:

1. SERVICE LINE SHALL BE PERPENDICULAR TO THE WATERMAIN, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. APPROVED BACKFLOW PREVENTION MUST BE INSTALLED WITH IRRIGATION SERVICE PER D.O.H. REQUIREMENTS. IRRIGATION SYSTEM SHALL NOT BE PUT INTO SERVICE UNTIL THE BACKFLOW PREVENTION DEVICE IS APPROVED BY A CITY WATER QUALITY TECHNICIAN.
3. METER WILL BE SUPPLIED AND INSTALLED BY THE CITY.



CITY OF NORTH BEND

1x3/4" OR 1"x1" SINGLE WATER
SERVICE OR DOMESTIC
IRRIGATION SERVICE

APPROVED:

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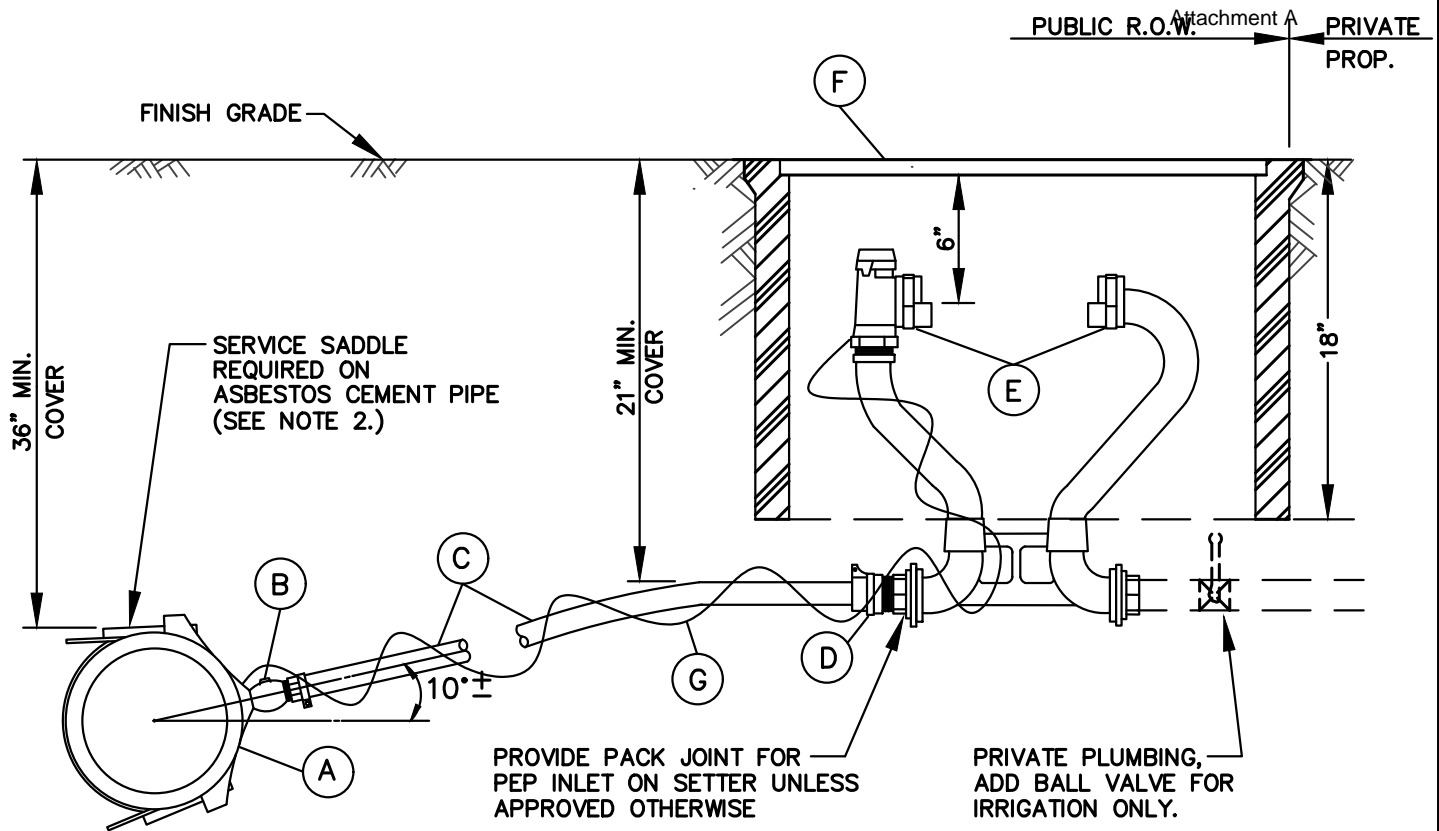
BY CITY

MAY 2018

DATE

DWG. NO.

W-22



HORIZONTAL METER SETTER INSTALLATION

- (A) EPOXY OR NYLON COATED HIGH TENSILE D.I. SERVICE SADDLE W/ STAINLESS STEEL STRAP AND EPOXY COATED BOSS, 1-1/2" MIP THREAD TAP, ROMAC TYPE 202 OR EQUAL, SIZE AS REQUIRED.
- (B) BALL CORPORATION STOP 1-1/2" MIP THREAD INLET BY 1-1/2" PACK JOINT OUTLET FOR PE PIPE FORD FB1101-6-IDR7-NL BALL CORP, OR EQUAL.
- (C) 1" HDPE 200 PSI SIDR 7.
- (D) COUPLING, 1-1/2" MALE IRON PIPE THREAD BY 1-1/2" PACK JOINT (COMPRESSION FITTING) FOR POLYETHYLENE PIPE (IF APPROVED FOR USE). FORD PACK JOINT COUPLING C86-66-IDR7-NL, OR EQUAL.
- (E) 1" METER SETTER WITH 1-1/2" PACK JOINT PER PEP INLET (UNLESS APPROVED OTHERWISE) AND SINGLE CHECK VALVE FORD VBH74-12W-18-XX-XX-NL STYLE, OR EQUAL.
- (F) METER BOX, EQUAL TO FOGTITE B-10 (1") OR B-9 1/2 (3/4"), HINGED READER LID AND 2" TR/PL HOLE.
- (G) 12 AWG BLUE TRACER WIRE.

NOTES:

1. SERVICE LINE SHALL BE PERPENDICULAR TO THE WATERMAIN, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. APPROVED BACKFLOW PREVENTION MUST BE INSTALLED WITH IRRIGATION SERVICE PER D.O.H. REQUIREMENTS. IRRIGATION SYSTEM SHALL NOT BE PUT INTO SERVICE UNTIL THE BACKFLOW PREVENTION DEVICE IS APPROVED BY A CITY WATER QUALITY TECHNICIAN.
3. METER WILL BE SUPPLIED AND INSTALLED BY THE CITY.



CITY OF NORTH BEND

1-1/2"x1" SINGLE WATER
SERVICE OR DOMESTIC
IRRIGATION SERVICE

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-23



CITY OF NORTH BEND

RESERVED

APPROVED:

MARK RIGOS, P.E.

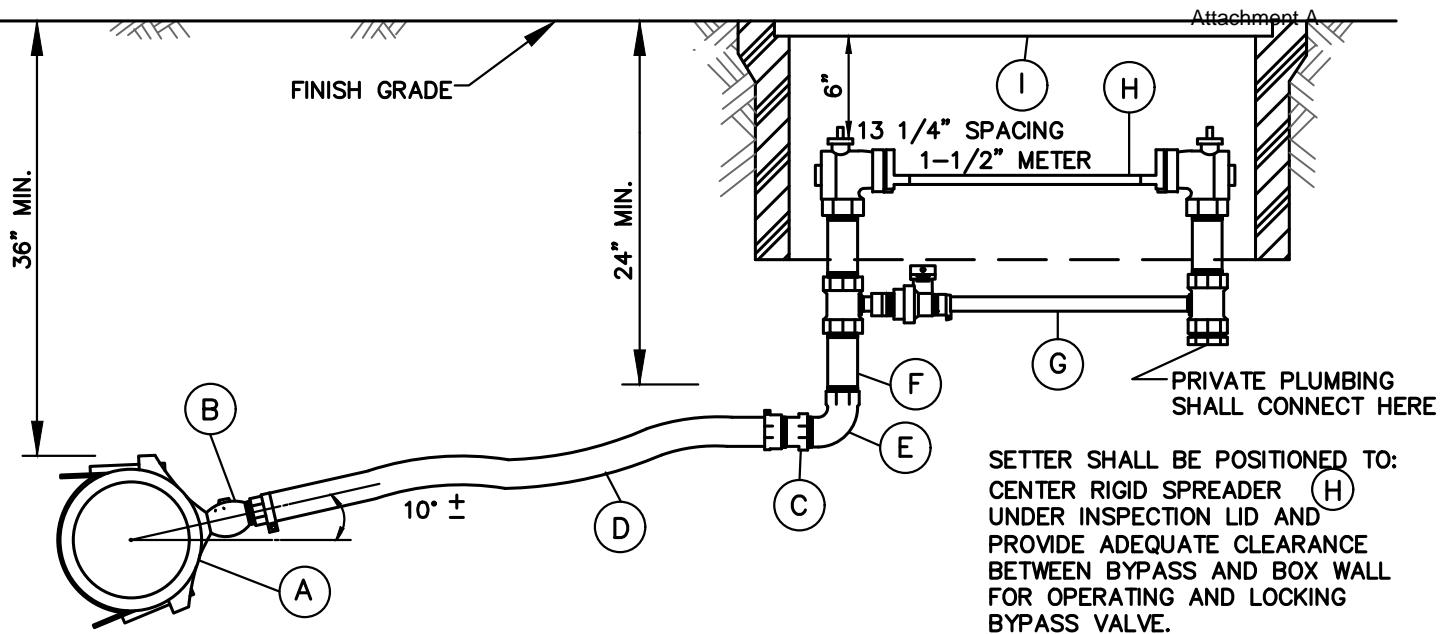
BY CITY

MAY 2018

DATE

DWG. NO.

W-24



- (A) EPOXY OR NYLON COATED HIGH TENSILE D.I. SERVICE SADDLE W/ DOUBLE STAINLESS STEEL STRAP AND EPOXY COATED BOSS, 1 1/2" MIP TAPER (IP) TAP, FORD FCD202, OR EQUAL, SIZE AS REQUIRED.
- (B) BALL CORPORATION STOP, 1 1/2" MIP TAPER (IP) INLET BY 1 1/2" MALE IRON PIPE THREAD OUTLET WITH BALL VALVE (OR EQUAL LOW-FRICTION VALVE), FORD FB1101-6-IDR7-NL BALL CORP, OR EQUAL.
- (C) 1 1/2" MIP THREAD TO 1 1/2" PACK JOINT FOR PE PIPE, FORD C-86-66-IDR7-NL, OR EQUAL.
- (D) 1 1/2" SDR 7 HDPE.
- (E) 1 1/2" 90 DEGREE BEND, BRASS, FEMALE IRON PIPE THREAD BY FEMALE IRON PIPE THREAD.
- (F) 1 1/2" NIPPLE, BRASS, M.I.P.T. X M.I.P.T., LENGTH AS REQUIRED TO MEET PROPER GRADE.
- (G) 1 1/2" BRASS AND COPPER METER SETTER WITH LOW BYPASS:
 -FLANGED BALL METER VALVE ON INLET AND OUTLET
 -BALL VALVE ON BYPASS
 -PADLOCK WINGS ON ALL VALVES
 -VERTICAL INLET AND OUTLET, F.I.P.T.
 -BUSHING INCLUDED ON OUTLET
 -OMIT BYPASS WHEN USED FOR IRRIGATION ONLY
 FORD VBB76-12B-11-66 WITH LOW BYPASS OR A.Y. MCDONALD 20B612WWFF665 VERTICAL METER SETTER WITH VALVE ROTATED 90 DEG., OR EQUAL.
- (H) RIGID METER SPREADER TO BE INSTALLED IN METER SETTER BY CONTRACTOR.
- (I) METER BOX, EQUAL TO:
 FOGTITE NO. 2 METER BOX (2 SECTIONS REQ'D): CONCRETE LID WITH DROP IN INSPECTION PLATE FOR LANDSCAPED AREAS, STEEL DIAMOND PLATE COVER IN TRAFFIC AREAS.

NOTES:

- SERVICE LINE SHALL BE PERPENDICULAR TO THE WATERMAIN, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- BYPASS WILL BE LOCKED OFF BY CONSTRUCTION INSPECTOR WHEN METER SPREADER IS INSTALLED.
- METER WILL BE SUPPLIED AND INSTALLED BY THE CITY.



CITY OF NORTH BEND
 1 1/2" DOMESTIC WATER,
 IRRIGATION AND/OR FIRE
 SERVICE

APPROVED:

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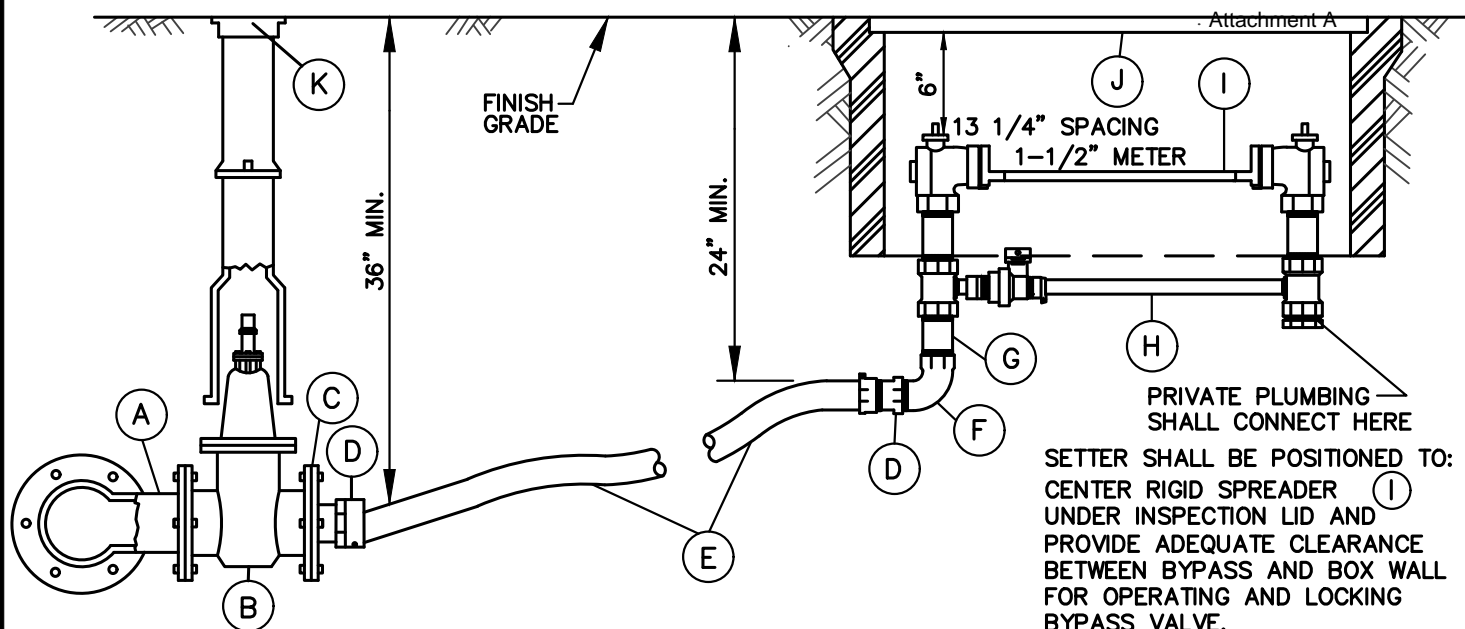
BY CITY

MAY 2018

DATE

DWG. NO.

W-25



- (A) DUCTILE IRON TEE WITH 4" BRANCH, FL WITH (3) GATE VALVES (ON NEW MAINS), TAPPING TEE WITH 4" BRANCH, FL WITH (1) GATE VALVE (ON EXISTING MAINS).
- (B) 4" GATE VALVE, FL.
- (C) 4" REDUCING COMPANION FLANGE WITH 1 1/2" TAP.
- (D) 1 1/2" MIP THREAD TO 1 1/2" PACK JOINT FOR PE PIPE, FORD C-86-66-IDR7-NL, OR EQUAL.
- (E) 1 1/2" SDR 7 HDPE.
- (F) 1 1/2" 90 DEGREE BEND, BRASS, FEMALE IRON PIPE THREAD BY FEMALE IRON PIPE THREAD.
- (G) 1 1/2" NIPPLE, BRASS, M.I.P.T. x M.I.P.T., LENGTH AS REQUIRED TO MEET PROPER GRADE.
- (H) 1 1/2" BRASS AND COPPER METER SETTER WITH LOW BYPASS:
 - FLANGED BALL METER VALVE ON INLET AND OUTLET
 - BALL VALVE ON BYPASS
 - PADLOCK WINGS ON ALL VALVES
 - VERTICAL INLET AND OUTLET, F.I.P.T.
 - BUSHING INCLUDED ON OUTLET
 FORD VBB76-12B-11-66 WITH LOW BYPASS OR A.Y. McDONALD 20B612WWFF665 VERTICAL METER SETTER WITH VALVE ROTATED 90 DEG., OR EQUAL.
- (I) RIGID METER SPREADER TO BE INSTALLED IN METER SETTER BY CONTRACTOR.
- (J) METER BOX, EQUAL TO:
 - FOGTITE NO. 2 METER BOX (2 SECTIONS REQ'D): CONCRETE LID WITH DROP IN INSPECTION PLATE FOR LANDSCAPED AREAS, STEEL DIAMOND PLATE COVER IN TRAFFIC AREAS.
- (K) TWO PIECE CAST IRON VALVE BOX TO FIT, EQUAL TO OLYMPIC FOUNDRY #045 — WITH RECESSED HANDLE LID. SEE DETAIL W-11.

NOTES:

1. SERVICE LINE SHALL BE PERPENDICULAR TO THE WATERMAIN, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. BYPASS WILL BE LOCKED OFF BY CONSTRUCTION INSPECTOR WHEN METER SPREADER IS INSTALLED.
3. METER WILL BE SUPPLIED AND INSTALLED BY THE CITY.



CITY OF NORTH BEND

**1 1/2" DOMESTIC WATER SERVICE
(COMMERCIAL AND MULTI-FAMILY)**

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-26



CITY OF NORTH BEND

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MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-27



CITY OF NORTH BEND

RESERVED

APPROVED:

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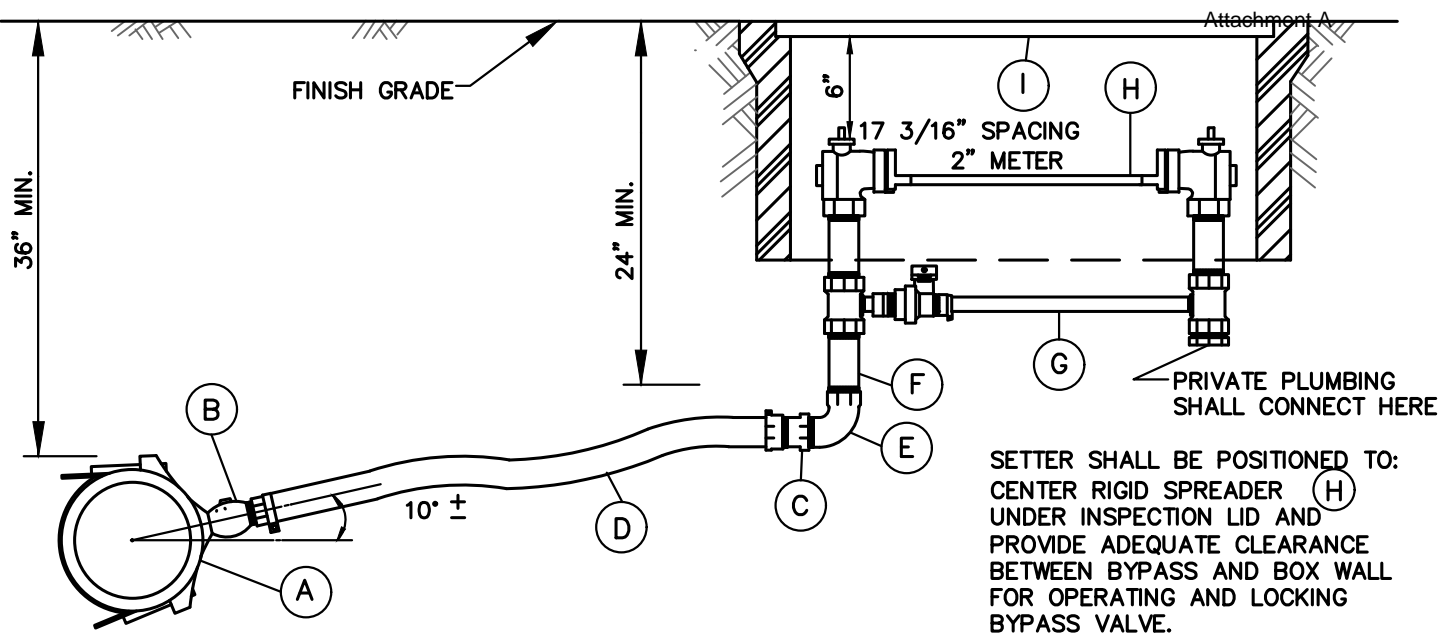
BY CITY

MAY 2018

DATE

DWG. NO.

W-28



- (A) EPOXY OR NYLON COATED HIGH TENSILE D.I. SERVICE SADDLE W/ DOUBLE STAINLESS STEEL STRAP AND EPOXY COATED BOSS, 2" MIP TAPER (IP) TAP, FORD FCD202, OR EQUAL, SIZE AS REQUIRED.
- (B) BALL CORPORATION STOP, 2" MIP TAPER (IP) INLET BY 2" MALE IRON PIPE THREAD OUTLET WITH BALL VALVE (OR EQUAL LOW-FRICTION VALVE), FORD FB1101-7-IDR7-NL BALL CORP, OR EQUAL.
- (C) COUPLING, 2" MIP THREAD TO PACK JOINT FOR PE PIPE, FORD C-86-77-IDR7-NL, OR EQUAL.
- (D) 2" SIDR 7 HDPE.
- (E) 2" 90 DEGREE BEND, BRASS, FEMALE IRON PIPE THREAD BY FEMALE IRON PIPE THREAD.
- (F) 2" NIPPLE, BRASS, M.I.P.T. X M.I.P.T., LENGTH AS REQUIRED TO MEET PROPER GRADE.
- (G) 2" BRASS AND COPPER METER SETTER WITH LOW BYPASS:
 - FLANGED BALL METER VALVE ON INLET AND OUTLET
 - BALL VALVE ON BYPASS
 - PADLOCK WINGS ON ALL VALVES
 - VERTICAL INLET AND OUTLET, F.I.P.T.
 - BUSHING INCLUDED ON OUTLET
 - OMIT BYPASS WHEN USED FOR IRRIGATION ONLY
 FORD VBB77-12B-11-77 WITH LOW BYPASS OR A.Y. MCDONALD 20B712WWFF775 VERTICAL METER SETTER WITH VALVE ROTATED 90 DEG., OR EQUAL.
- (H) RIGID METER SPREADER TO BE INSTALLED IN METER SETTER BY CONTRACTOR.
- (I) METER BOX, EQUAL TO:
FOGTITE NO. 2 METER BOX (2 SECTIONS REQ'D): CONCRETE LID WITH DROP IN INSPECTION PLATE FOR LANDSCAPED AREAS, STEEL DIAMOND PLATE COVER IN TRAFFIC AREAS.

NOTES:

1. SERVICE LINE SHALL BE PERPENDICULAR TO THE WATERMAIN, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. BYPASS WILL BE LOCKED OFF BY CONSTRUCTION INSPECTOR WHEN METER SPREADER IS INSTALLED.
3. METER WILL BE SUPPLIED AND INSTALLED BY THE CITY.



CITY OF NORTH BEND

**2" DOMESTIC WATER, IRRIGATION
AND/OR FIRE SERVICE**

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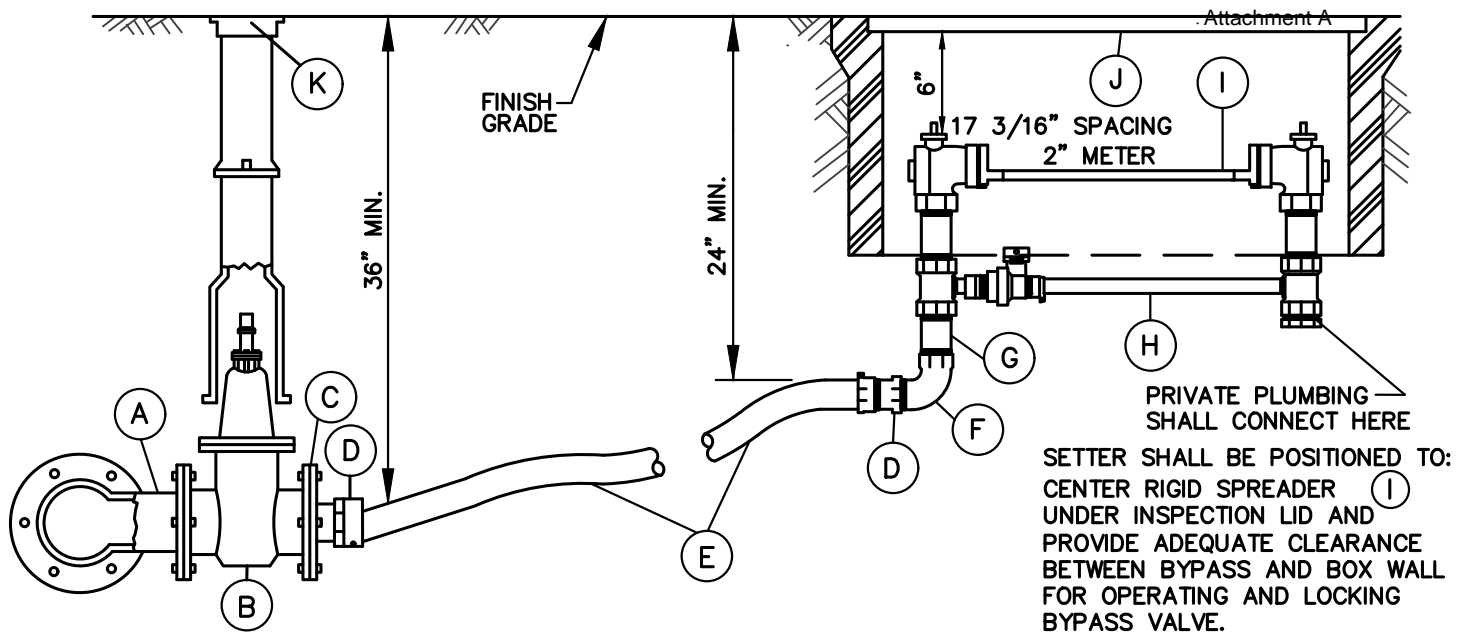
BY CITY

MAY 2018

DATE

DWG. NO.

W-29



- (A) DUCTILE IRON TEE WITH 4" BRANCH, FL WITH (3) GATE VALVES (ON NEW MAINS), TAPPING TEE WITH 4" BRANCH, FL WITH (1) GATE VALVE (ON EXISTING MAINS).
- (B) 4" GATE VALVE, FL.
- (C) 4" REDUCING COMPANION FLANGE WITH 1 1/2" TAP.
- (D) 2" MIP THREAD TO 2" PACK JOINT FOR PE PIPE, FORD C-86-77-IDR7-NL, OR EQUAL.
- (E) 2" SIDR 7 HDPE.
- (F) 2" 90 DEGREE BEND, BRASS, FEMALE IRON PIPE THREAD BY FEMALE IRON PIPE THREAD.
- (G) 2" NIPPLE, BRASS, M.I.P.T. x M.I.P.T., LENGTH AS REQUIRED TO MEET PROPER GRADE.
- (H) 2" BRASS AND COPPER METER SETTER WITH LOW BYPASS:
 - FLANGED BALL METER VALVE ON INLET AND OUTLET
 - BALL VALVE ON BYPASS
 - PADLOCK WINGS ON ALL VALVES
 - VERTICAL INLET AND OUTLET, F.I.P.T.
 - BUSHING INCLUDED ON OUTLET
 FORD VBB77-12B-11-77 WITH LOW BYPASS OR A.Y. MCDONALD 20B712WWFF775 VERTICAL METER SETTER WITH VALVE ROTATED 90 DEG., OR EQUAL.
- (I) RIGID METER SPREADER TO BE INSTALLED IN METER SETTER BY CONTRACTOR.
- (J) METER BOX, EQUAL TO:
FOGTITE NO. 2 METER BOX (2 SECTIONS REQ'D): CONCRETE LID WITH DROP IN INSPECTION PLATE FOR LANDSCAPED AREAS, STEEL DIAMOND PLATE COVER IN TRAFFIC AREAS.
- (K) TWO PIECE CAST IRON VALVE BOX TO FIT, EQUAL TO OLYMPIC FOUNDRY #045 - WITH RECESSED HANDLE LID. SEE DETAIL W-11.

NOTES:

1. SERVICE LINE SHALL BE PERPENDICULAR TO THE WATERMAIN, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. BYPASS WILL BE LOCKED OFF BY CONSTRUCTION INSPECTOR WHEN METER SPREADER IS INSTALLED.
3. METER WILL BE SUPPLIED AND INSTALLED BY THE CITY.



CITY OF NORTH BEND
2" DOMESTIC WATER SERVICE
(COMMERCIAL AND MULTI-FAMILY)

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-30



CITY OF NORTH BEND

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APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-31



CITY OF NORTH BEND

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MAY 2018

DATE

DWG. NO.

W-32

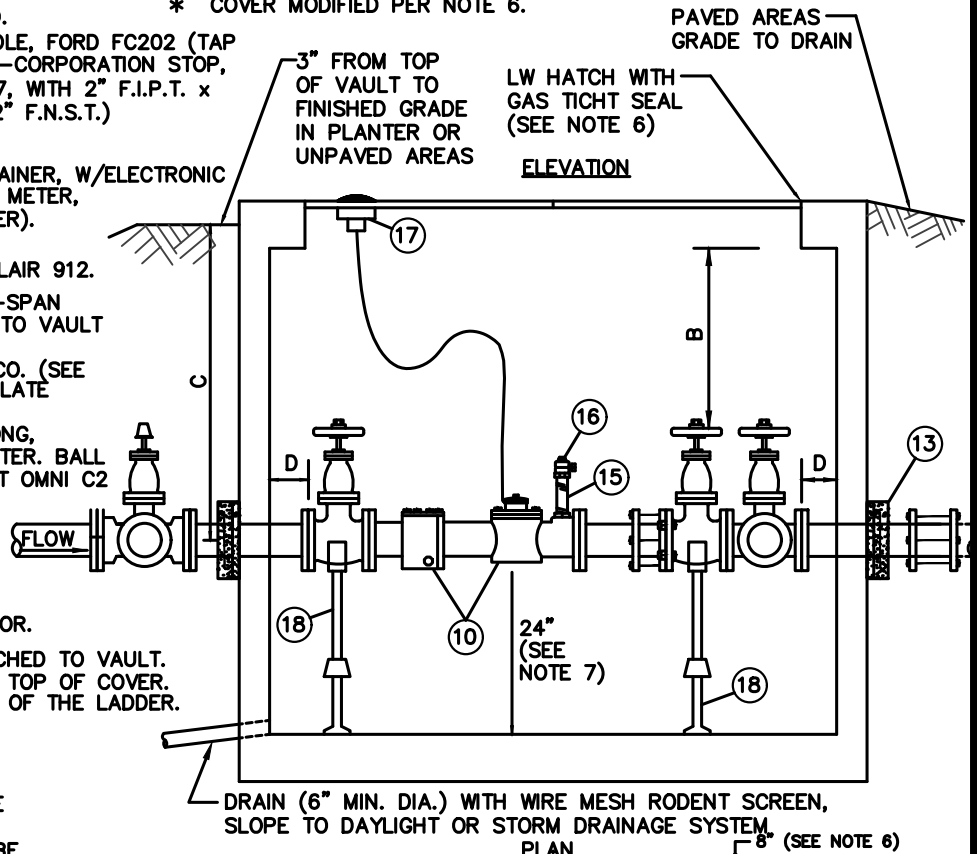
MATERIALS LIST — (ALL SIZES ARE SAME AS METER UNLESS OTHERWISE LISTED)

Attachment A

- ① 1-MECH. CPLG. TO FIT, EQUAL TO ROMAC 501
- ② 1-4"x3" REDUCER, P.E.xM.J. (FOR 3" SERVICE ONLY)
- ③ 1-TEE, M.J. x FL.
- ④ 1-GATE VALVE, F.L.x M.J. (W/VALVE BOX & COVER)
- ⑤ 3-D.I. PIPE, P.E., LENGTH AS REQUIRED
- ⑥ 2-90° BEND, M.J.
- ⑦ 2-D.I. PIPE, P.E.xFL., LENGTH AS REQUIRED.
- ⑧ 1-EPOXY OR NYLON COATED SERVICE SADDLE, FORD FC202 (TAP POINTED UP AT 12-O'CLOCK) OR EQUAL, 1-CORPORATION STOP, AWWA TAPER(CC) x M.I.P.T., FORD FB400-7, WITH 2" F.I.P.T. x 2 1/2" M.N.S.T. ADAPTOR AND CAP (2 1/2" F.N.S.T.)
- ⑨ 3-GATE VALVE, FL.
- ⑩ SENSUS OMNI C2 METER W/ INTERNAL STRAINER, W/ELECTRONIC RESOLUTION (100'S OF CUBIC FEET FOR 3" METER, 500 CUBIC FEET FOR 4-6" METER) REGISTER).
- ⑪ 1-D.I. ADAPTER FL. x P.E., LENGTH TO FIT.
- ⑫ 2-FL.xCPLG. ADAPTER, EQUAL TO SMITH-BLAIR 912.
- ⑬ WELDED FL. RESTRAINT OR MEGA-LUG MID-SPAN RESTRAINT AND THRUST BLOCK ADJACENT TO VAULT SEE STANDARD DETAIL W-56.
- ⑭ PRECAST CONC. VAULT BY UTILITY VAULT CO. (SEE TABLE FOR MODEL NO.) W/TWO DIAMOND PLATE DOORS RATED FOR H-30 LOADING.
- ⑮ 1-2" BRASS NIPPLE, M.I.P.T.xM.I.P.T., 6" LONG, CONNECT TO TEST PORT OF COMPOUND METER. BALL VALVE FORD FB1000 FIPTxFIPT SIZED TO FIT OMNI C2 FLUSHPORT.
- ⑯ 2" M.I.P.T. x 2 1/2" MNST ADAPTOR AND CAP (2 1/2" FNST).
- ⑰ TR/PL SENSOR (TO MOUNT IN VAULT ACCESS DOOR).
- ⑱ 2-ADJUSTABLE STANCHION BOLTED TO FLOOR.
- ⑲ 1-GALVANIZED STEEL LADDER TO BE ATTACHED TO VAULT. THE FIRST STEP SHALL BE MAX. 8" BELOW TOP OF COVER.
- ⑳ 1-BILCO LADDER UP, LU-2 MODEL AT TOP OF THE LADDER. SEE DETAIL W-19.
- ㉑ 1- TEE, FL.

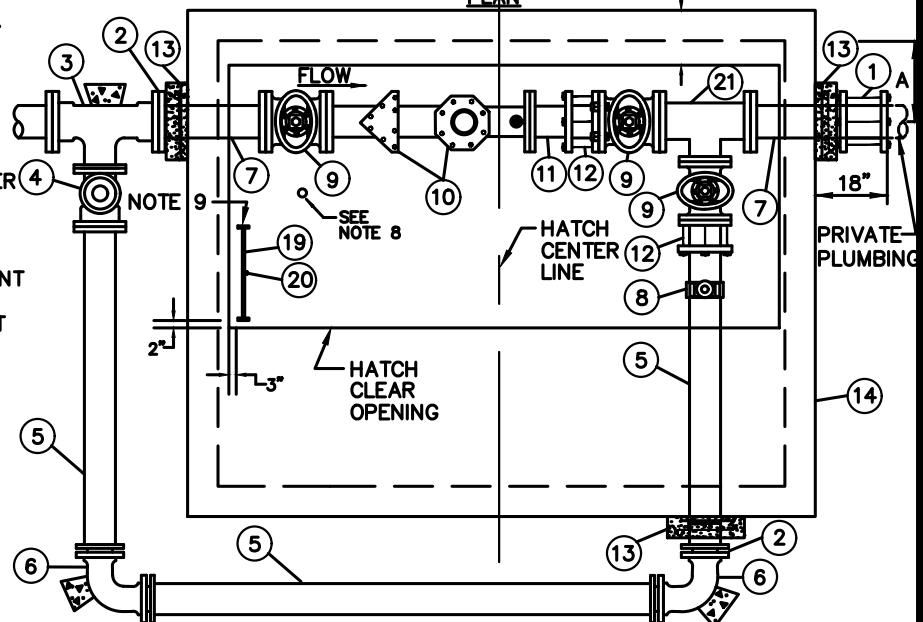
METER SIZE	MAIN-LINE	BYPASS	CORP STOP FOR FLUSH PORT-SIZE	MIN. CLEARANCES				VAULT MODEL	VAULT COVER * (W/SPECIAL OFFSET)
				A	B	C	D		
3"	4"D.I.	4" D.I.	2"	10"	6"	2'-8"	6"	577-LA	57TL-2-332P
4"	4"D.I.	4" D.I.	2"	12"	6"	2'-8"	6"	676-WA	676-TW-2-332P
6"	6"D.I.	6" D.I.	2"	12"	6"	3'-2"	6"	4484-LA	4484-TL2-332P

* COVER MODIFIED PER NOTE 6.



NOTES:

1. ALL MATERIALS, INCLUDING METER SHALL BE FURNISHED BY CONTRACTOR.
2. ALL PIPE & FITTINGS 3" & LARGER SHALL BE CEMENT LINED DUCTILE IRON, CLASS 52 MINIMUM.
3. TEE WITH (3) GATE VALVES REQUIRED AT DISTRIBUTION MAIN.
4. VAULTS SHALL NOT BE INSTALLED IN AREAS W/VEHICULAR TRAFFIC.
5. IN CENTRAL BUSINESS DISTRICT, 3" THROUGH 6" METERS SHALL CONNECT TO WATER MAIN W/8" PIPE (SUBSTITUTE 8"xSERVICE SIZE REDUCER M.J.xP.E., AT UPSTREAM SIDE OF ITEM (3)).
6. VAULT COVER SHALL INCLUDE 2 LOCKING ALUMINUM LW HATCH DOORS (PART NO. HHD-36"x72") DOORS SHALL HAVE SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. DOORS SHALL BE CAST IN COVER WITH 8" SPECIAL OFFSET FROM VAULT WALL, AS SHOWN. COVER TO READ "WATER".
7. PROVIDE 24" CLEARANCE BETWEEN VAULT FLOOR & BOTTOM OF COMPOUND METER. WHERE ELEVATION OF VAULT FLOOR IS TOO LOW TO DRAIN TO DAYLIGHT OR STORM SYSTEM, THIS CLEARANCE CAN BE REDUCED TO A MINIMUM OF 12", IF SUBSTITUTION OF A SHORTER VAULT ALLOWS FLOOR TO DRAIN TO DAYLIGHT OR STORM SYSTEM (APPROVED BY THE UTILITY ON A CASE BY CASE BASIS ONLY). SUBSTITUTE VAULTS ARE AS FOLLOWS:
 3" 575-LA WITH 57TL-2-332P COVER (WITH SPECIAL OFFSET + LW ALUM. HATCH)
 4" 675-WA WITH 675-TW-2-332P COVER (WITH SPECIAL OFFSET + LW ALUM. HATCH)
8. PROVIDE 2 1/4" DIAM. OPENING IN ALUMINUM DOOR FOR TR/PL SENSOR.
9. LADDER TO BE BOLTED TO VAULT FLOOR AND TO VAULT WALL AT THREE LOCATIONS. RUNGS SHALL BE SPACED AT 12" ON CENTER.
10. ALL FITTINGS OUTSIDE VAULT SHALL INCLUDE THRUST BLOCKING AND JOINT RESTRAINT DEVICES.
11. PIPE, FITTINGS, VALVES OUTSIDE VAULT SHALL BE 4" FOR 3" SERVICE INSTALLATION.
12. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA AROUND HATCHES.



CITY OF NORTH BEND

3" TO 6" DOMESTIC METER INSTALLATION

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-33

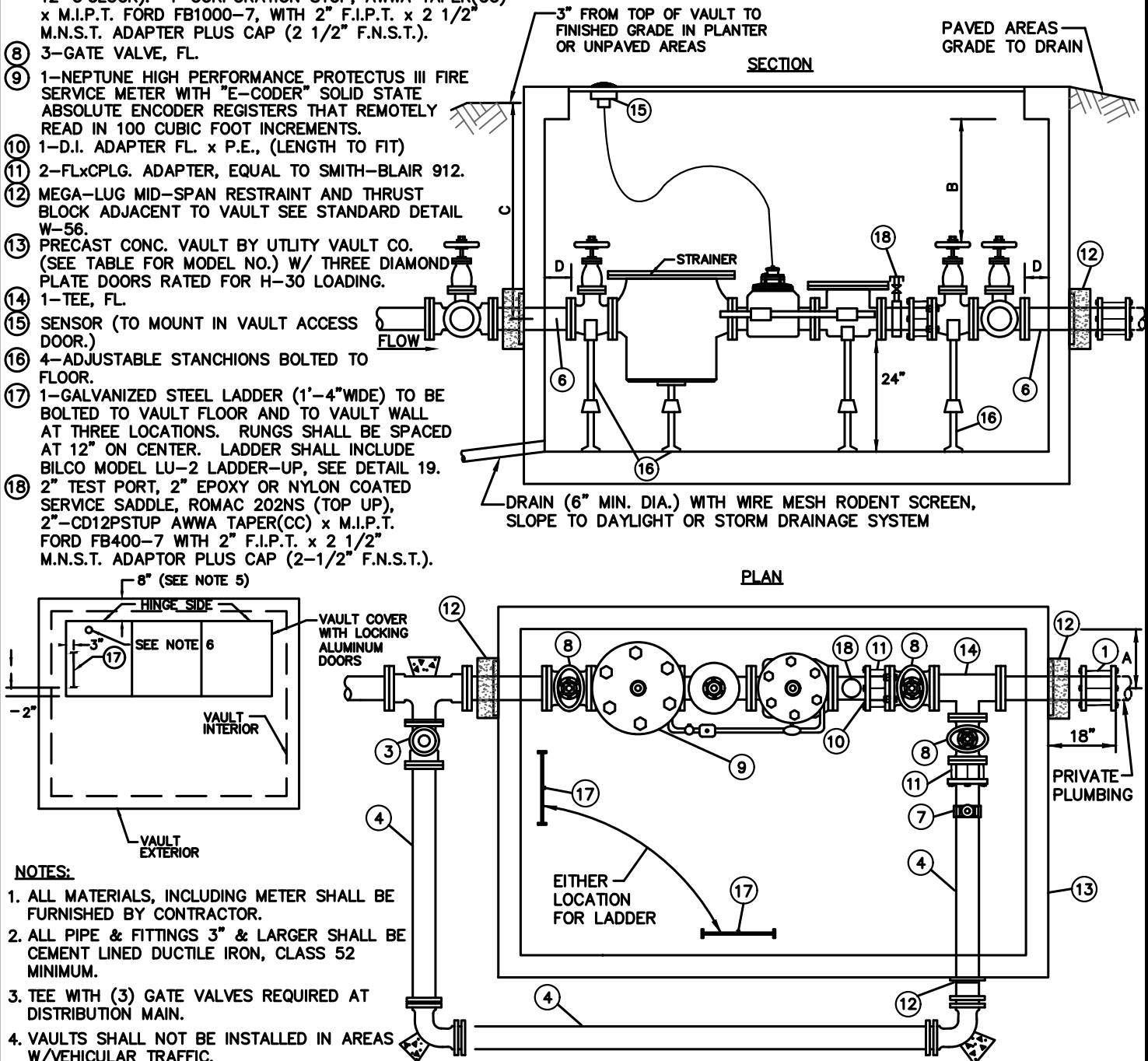
MATERIALS LIST – (ALL SIZES ARE SAME AS METER UNLESS OTHERWISE LISTED)

Attachment A

- ① 1-MECH CPLG. TO FIT, EQUAL TO ROMAC 501
- ② 1-TEE, M.J. x FL.
- ③ 1-GATE VALVE, F.L.x M.J. (W/VALVE BOX & COVER)
- ④ 3-D.I. PIPE, P.E., LENGTH AS REQUIRED
- ⑤ 2-90° BEND, M.J.
- ⑥ 2-D.I. PIPE, P.E.xFL., LENGTH AS REQUIRED.
- ⑦ 1-EPOXY OR NYLON COATED SERVICE SADDLE, FORD FC202 OR FCD202 OR EQUAL (TAP POINTED UP AT 12-O'CLOCK). 1-CORPORATION STOP, AWWA TAPER(CC) x M.I.P.T. FORD FB1000-7, WITH 2" F.I.P.T. x 2 1/2" M.N.S.T. ADAPTER PLUS CAP (2 1/2" F.N.S.T.).
- ⑧ 3-GATE VALVE, FL.
- ⑨ 1-NEPTUNE HIGH PERFORMANCE PROTECTUS III FIRE SERVICE METER WITH "E-CODER" SOLID STATE ABSOLUTE ENCODER REGISTERS THAT REMOTELY READ IN 100 CUBIC FOOT INCREMENTS.
- ⑩ 1-D.I. ADAPTER FL. x P.E., (LENGTH TO FIT)
- ⑪ 2-FLxCPLG. ADAPTER, EQUAL TO SMITH-BLAIR 912.
- ⑫ MEGA-LUG MID-SPAN RESTRAINT AND THRUST BLOCK ADJACENT TO VAULT SEE STANDARD DETAIL W-56.
- ⑬ PRECAST CONC. VAULT BY UTILITY VAULT CO. (SEE TABLE FOR MODEL NO.) W/ THREE DIAMOND PLATE DOORS RATED FOR H-30 LOADING.
- ⑭ 1-TEE, FL.
- ⑮ SENSOR (TO MOUNT IN VAULT ACCESS DOOR.)
- ⑯ 4-ADJUSTABLE STANCHIONS BOLTED TO FLOOR.
- ⑰ 1-GALVANIZED STEEL LADDER (1'-4"WIDE) TO BE BOLTED TO VAULT FLOOR AND TO VAULT WALL AT THREE LOCATIONS. RUNGS SHALL BE SPACED AT 12" ON CENTER. LADDER SHALL INCLUDE BILCO MODEL LU-2 LADDER-UP, SEE DETAIL 19.
- ⑱ 2" TEST PORT, 2" EPOXY OR NYLON COATED SERVICE SADDLE, ROMAC 202NS (TOP UP), 2"-CD12PSTUP AWWA TAPER(CC) x M.I.P.T. FORD FB400-7 WITH 2" F.I.P.T. x 2 1/2" M.N.S.T. ADAPTOR PLUS CAP (2-1/2" F.N.S.T.).

METER SIZE	MAIN-LINE	BYPASS	CORP STOP FOR FLUSH PORT-SIZE	MIN. CLEARANCES				VAULT MODEL	VAULT COVER * (W/SPECIAL OFFSET)
				A	B	C	D		
8"	8"D.I.	8" D.I.	2"	21"	6"	5'-0"	6"	712-LA	712TL-3-332P

* COVER MODIFIED PER NOTE 5.



NOTES:

1. ALL MATERIALS, INCLUDING METER SHALL BE FURNISHED BY CONTRACTOR.
2. ALL PIPE & FITTINGS 3" & LARGER SHALL BE CEMENT LINED DUCTILE IRON, CLASS 52 MINIMUM.
3. TEE WITH (3) GATE VALVES REQUIRED AT DISTRIBUTION MAIN.
4. VAULTS SHALL NOT BE INSTALLED IN AREAS W/VEHICULAR TRAFFIC.
5. VAULT COVER SHALL INCLUDE 3 LOCKING ALUMINUM LW HATCH DOORS (PART NO. HHS-42"x42") WITH SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. DOORS SHALL BE CAST IN COVER WITH 8" SPECIAL OFFSET FROM VAULT WALL, AS SHOWN. COVER TO READ "WATER".
6. PROVIDE 2 1/4" DIAM. OPENING IN STEEL DOOR FOR SENSOR.
7. ALL FITTINGS OUTSIDE VAULT SHALL INCLUDE THRUST BLOCKING AND JOINT RESTRAINT DEVICES.
8. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA AROUND HATCHES.



CITY OF NORTH BEND

**8" DOMESTIC METER
INSTALLATION**

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

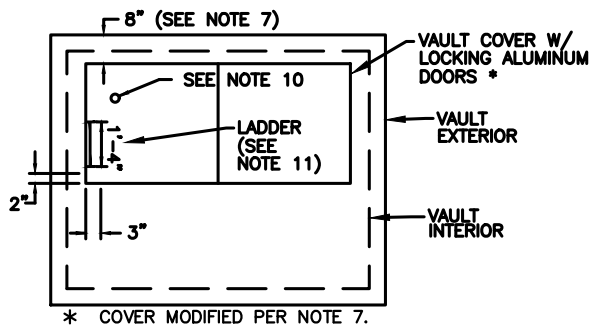
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W-34

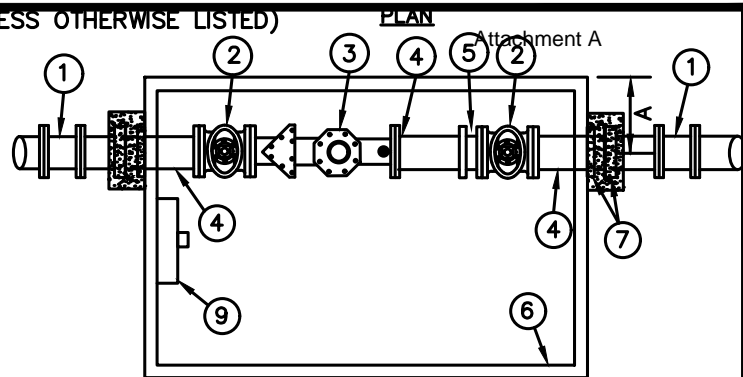
MATERIALS LIST— (ALL SIZES ARE SAME AS METER UNLESS OTHERWISE LISTED)

- ① 2—MECH. CPLG. TO FIT, EQUAL TO ROMAC 501 (4"x3" REDUCER, M.J. FOR 3" METER INSTALLATION ON UPSTREAM SIDE OF VAULT).
- ② 2—GATE VALVE, FLANGE.
- ③ 1—SENSUS OMNI C2 METER WITH INTERNAL STRAINER WITH ELECTRONIC REGISTER RESOLUTION (100'S OF CUBIC FEET FOR 3" METER, 500 CUBIC FEET FOR 4–6" METER) REGISTER.
- ④ 1—D.I. ADPT. FL.xPE. LENGTH TO FIT.
- ⑤ 1—CPLG. ADPT., FL. ROMAC – FCA 501.
- ⑥ PRECAST CONC. VAULT BY UTILITY VAULT CO. (577—LA.) WITH TWO DIAMOND PLATE DOORS RATED FOR H-30 LOADING W/ 8" OFFSET, SEE NOTE 7.
- ⑦ WELDED FL. RESTRAINT OR MEGALUG MID-SPAN RESTRAINT AND THRUST BLOCK ADJACENT TO VAULT STANDARD DETAIL W-56.
- ⑧ CONNECT THE FOLLOWING TO METER TEST PORT. 1—2" BRASS NIPPLE, M.I.P.T. x M.I.P.T. AND 2" F.I.P.T. x 2 1/2" M.N.S.T. PLUS CAP (2 1/2" M.N.S.T.), 6" LONG 1—2" BALL VALVE, F.I.P.T. x M.I.P.T. FORD B81-777
- ⑨ 1—GALVANIZED STEEL LADDER TO BE ATTACHED TO VAULT. SEE NOTE 11.
- ⑩ TR/PL SENSOR (TO MOUNT IN VAULT ACCESS DOOR).

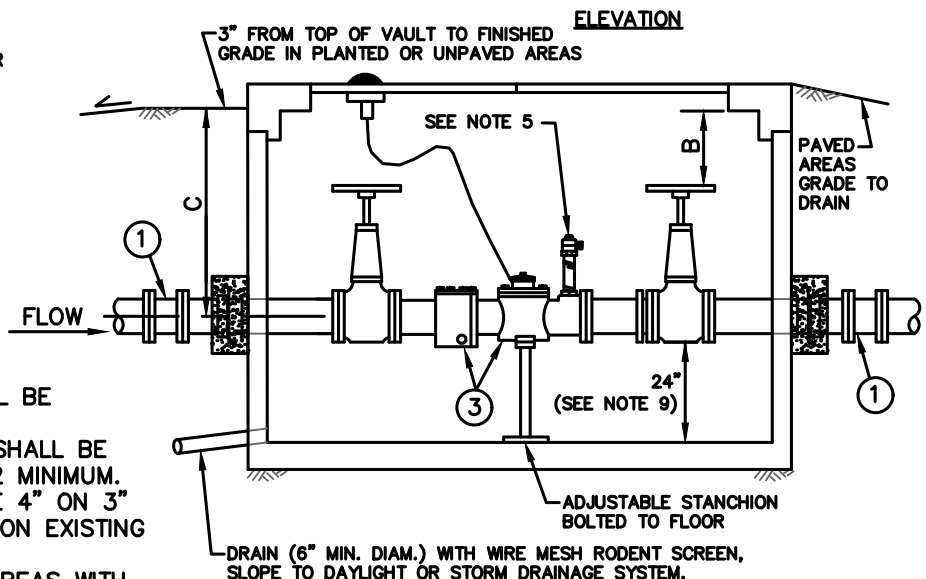


NOTES:

1. ALL MATERIALS INCLUDING METER SHALL BE FURNISHED BY CONTRACTOR.
2. ALL PIPE & FITTINGS 3" AND LARGER SHALL BE CEMENT LINED DUCTILE IRON, CLASS 52 MINIMUM.
3. PIPING FROM MAIN TO VAULT SHALL BE 4" ON 3" METER INSTALLATION. TEE WITH VALVE ON EXISTING MAIN REQUIRED.
4. VAULTS SHALL NOT BE INSTALLED IN AREAS WITH VEHICULAR TRAFFIC.
5. TEST PORT NOZZLE SHALL BE DIRECTED UPWARD UNLESS OTHERWISE DIRECTED, (SEE ITEM 8).
6. IN CENTRAL BUSINESS DISTRICT, CONNECT TO WATER MAIN WITH 8" PIPE. SUBSTITUTE 8" X SERVICE SIZE REDUCER, MJ, FOR ITEM 1 ON UPSTREAM SIDE OF VAULT. VAULT COVER SHALL INCLUDE 2 LOCKING ALUMINUM LW HATCH DOORS (PART NO. HHD-48"x48") WITH SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. DOORS SHALL BE CAST IN COVER WITH 8" SPECIAL OFFSET FROM VAULT WALL, AS SHOWN. COVER TO READ "WATER".



8. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA AROUND HATCHES.
9. PROVIDE 24" CLEARANCE BETWEEN VAULT FLOOR & BOTTOM OF METER, WHERE ELEVATION OF VAULT FLOOR IS TOO LOW TO DRAIN TO DAYLIGHT OR STORM SYSTEM. THIS CLEARANCE CAN BE REDUCED TO A MINIMUM OF 12", IF SUBSTITUTION OF A SHORTER VAULT ALLOWS FLOOR TO DRAIN TO DAYLIGHT OR STORM SYSTEM (APPROVED BY THE UTILITY ON A CASE BY CASE BASIS ONLY.) SUBSTITUTE VAULT AS FOLLOWS: 575—LA WITH LW PRODUCTS HHD-48"x48" COVER (WITH SPECIAL OFFSET) ALLOWED ONLY ON 3" AND 4" METERS.
10. PROVIDE 2 1/4" DIAM. OPENING IN ALUMINUM HATCH DOOR FOR TR/PL SENSOR.
11. LADDER TO BE BOLTED TO VAULT FLOOR AND TO VAULT WALL AT THREE LOCATIONS. RUNGS SHALL BE SPACED AT 12" ON CENTER. LADDER SHALL INCLUDE BILCO MODEL LU-2 LADDER-UP. SEE DETAIL 19.
12. A FULL FLOW BYPASS MAY BE REQUIRED, DEPENDING ON APPLICATION. TO BE DETERMINED BY THE CITY.



METER SIZE	MAIN-LINE	CORP. STOP FOR METER TESTING SIZE	MINIMUM CLEARANCES			
			A	B	C	D
3"	4"D.I.	2"	10"	6"	2'-8"	9"
4"	4"D.I.	2"	12"	6"	2'-8"	9"
6"	6"D.I.	2"	13"	6"	3'-2"	6"



CITY OF NORTH BEND

3" TO 6" IRRIGATION METER INSTALLATION

APPROVED:

MARK RIGOS, P.E.

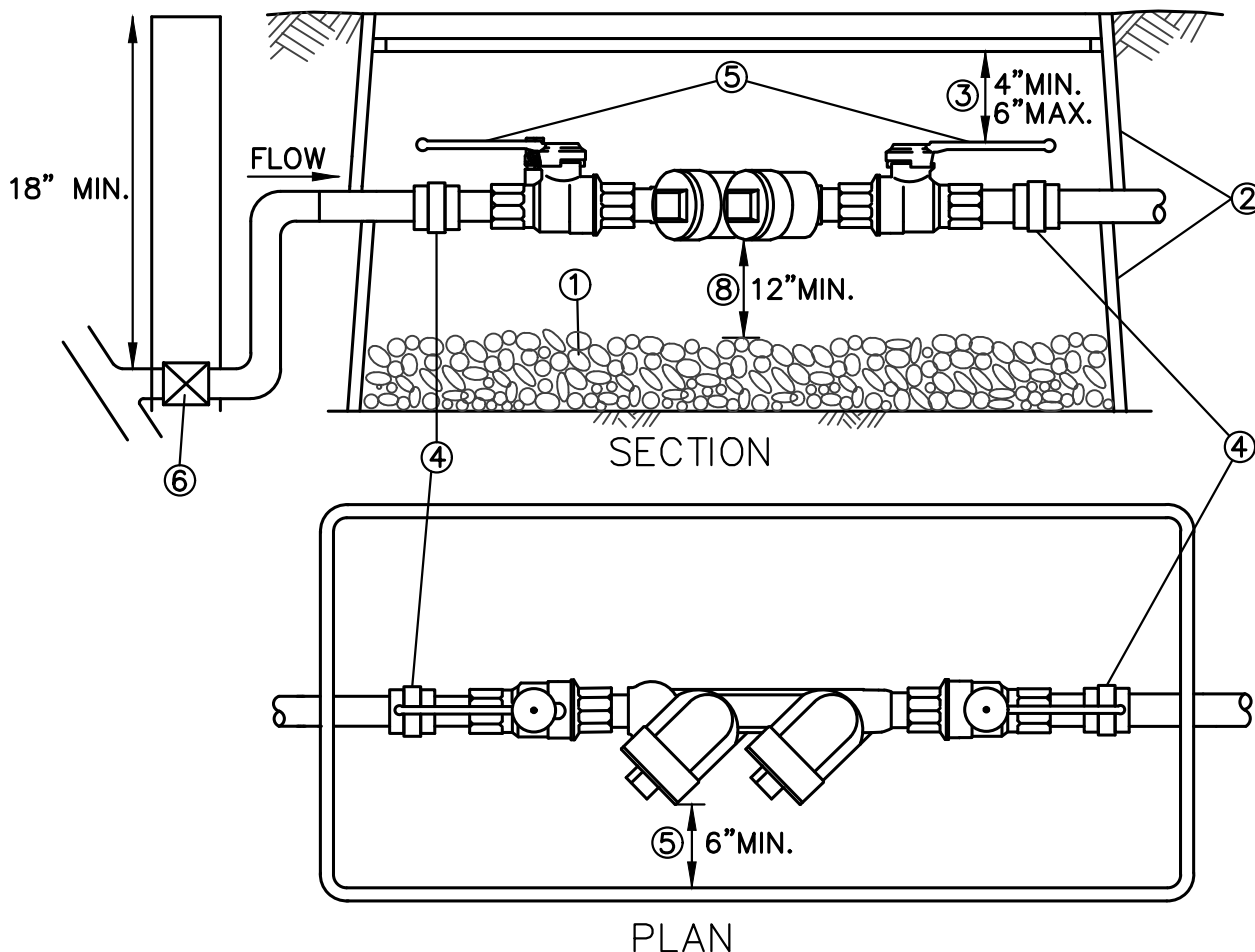
BY CITY

MAY 2018

DATE

DWG. NO.

W-35



- ① 1" ROUND WASHED GRAVEL BY 6" DEEP ON BOTTOM OF BOX
- ② ENCLOSE 2" & SMALLER D.C.V.A. IN TWO METER BOXES STACKED ON TOP OF EACH OTHER OR, OVERSIZED BOX. MUST HAVE REMOVABLE COVER. BOXES TO BE LOCATED IN SIDEWALK AND AREAS WITH VEHICULAR TRAFFIC SHALL BE METAL, EQUAL TO OLYMPIC FOUNDRY SM30. BOXES IN OTHER NON-TRAFFIC AREAS TO BE CARSON INDUSTRIES 1730-18 BCFXL METER BOX WITH 1730 COVER.
- ③ MAXIMUM OF 6" DISTANCE BETWEEN UNDERSIDE OF LID AND HIGHEST POINT OF DEVICE.
- ④ (2) UNIONS.
- ⑤ WHEN TEST-COCKS ARE FACING SIDWAYS THERE MUST BE A 6" MIN. CLEARANCE BETWEEN THEM AND SIDE OF BOX.
- ⑥ PER PLUMBING CODE REQUIREMENT, IRRIGATION SYSTEMS MUST HAVE SHUT OFF INSTALLED AS SHOWN. FEMALE FITTINGS ARE PROHIBITED IN CONJUNCTION WITH METALLIC MALE FITTINGS.

NOTES:

1. ALL INSTALLATIONS MUST MEET MINIMUM STANDARDS OF THE UNIFORM PLUMBING CODE AND WSDOH APPROVED INSTALLATIONS LIST.
2. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.



CITY OF NORTH BEND 1" TO 2" DOUBLE CHECK VALVE ASSEMBLY FOR IRRIGATION SYSTEMS (OUTSIDE INSTALLATION)

APPROVED:

MARK RIGOS, P.E.

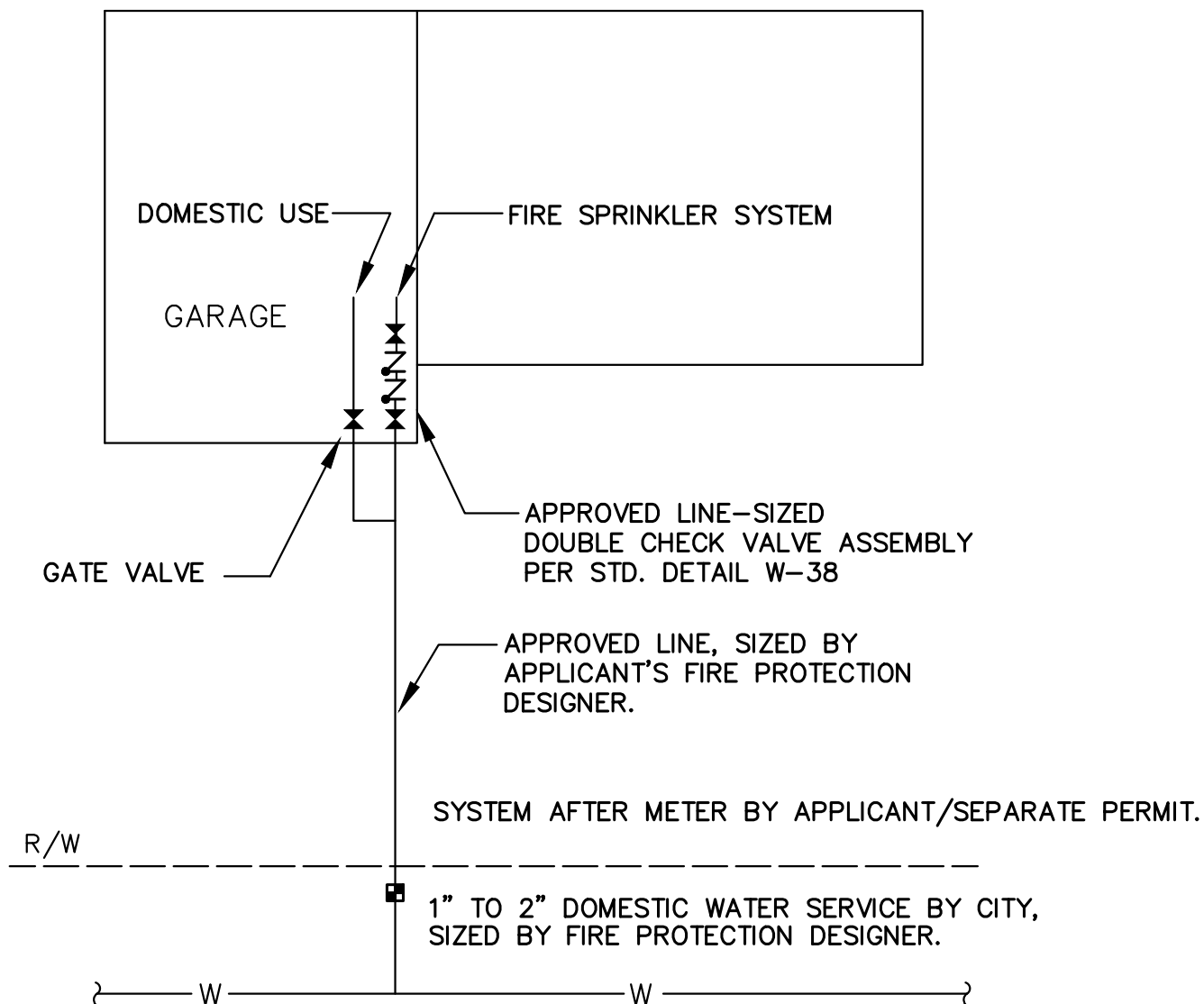
BY CITY

MAY 2018

DATE

DWG. NO.

W-36

**NOTE:**

1. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.



CITY OF NORTH BEND
 INSIDE DCVA INSTALLATION FOR
 RESIDENTIAL FIRE SPRINKLER
 SYSTEMS

APPROVED:

MARK RIGOS, P.E.

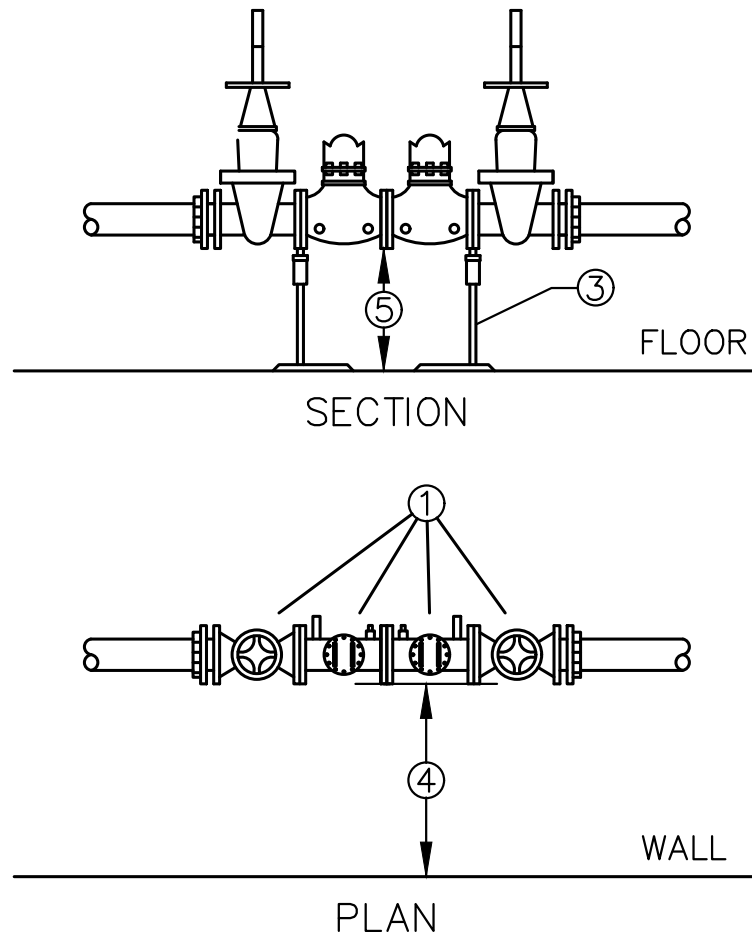
BY CITY

MAY 2018

DATE

DWG. NO.

W-37

**NOTES:**

- ① LINE-SIZED WA STATE APPROVED DOUBLE CHECK VALVE ASSEMBLY. THE D.C.V.A. INCLUDES (2) RESILIENT-SEATED SHUT-OFF VALVES AND (4) RESILIENT-SEATED TEST-COCKS.
- ② THE D.C.V.A. MUST BE INSTALLED PER WSDOH APPROVED INSTALLATIONS LIST.
- ③ (2) SUPPORTS (EITHER WALL OR FLOOR) ONE ON EACH SIDE OF ASSEMBLY, MUST FIRMLY ANCHOR DEVICE. REQUIRED FOR 2 1/2" AND LARGER LINE SIZE.
- ④ MUST PROVIDE A MINIMUM OF 6" SIDE CLEARANCE BETWEEN D.C.V.A. AND WALL OR OBSTRUCTION.
- ⑤ CLEARANCE BETWEEN FLOOR AND ASSEMBLY MUST BE A MINIMUM OF 12" AND A MAXIMUM OF 5'.
- ⑥ TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
- ⑦ PROTECT AGAINST FREEZING OR DAMAGE. USE HEAT-TAPE IF AREA IS SUBJECT TO FREEZING.
- ⑧ INTERIOR WATER APPURTENANCES MUST CONFORM TO UNIFORM PLUMBING CODE REQUIREMENTS.
- ⑨ FDC TO BE LOCATED DOWNSTREAM OF DCVA (COMMERCIAL ONLY).



CITY OF NORTH BEND

DOUBLE CHECK VALVE ASSEMBLY
(INSIDE INSTALLATION)

APPROVED:

MARK RIGOS, P.E.

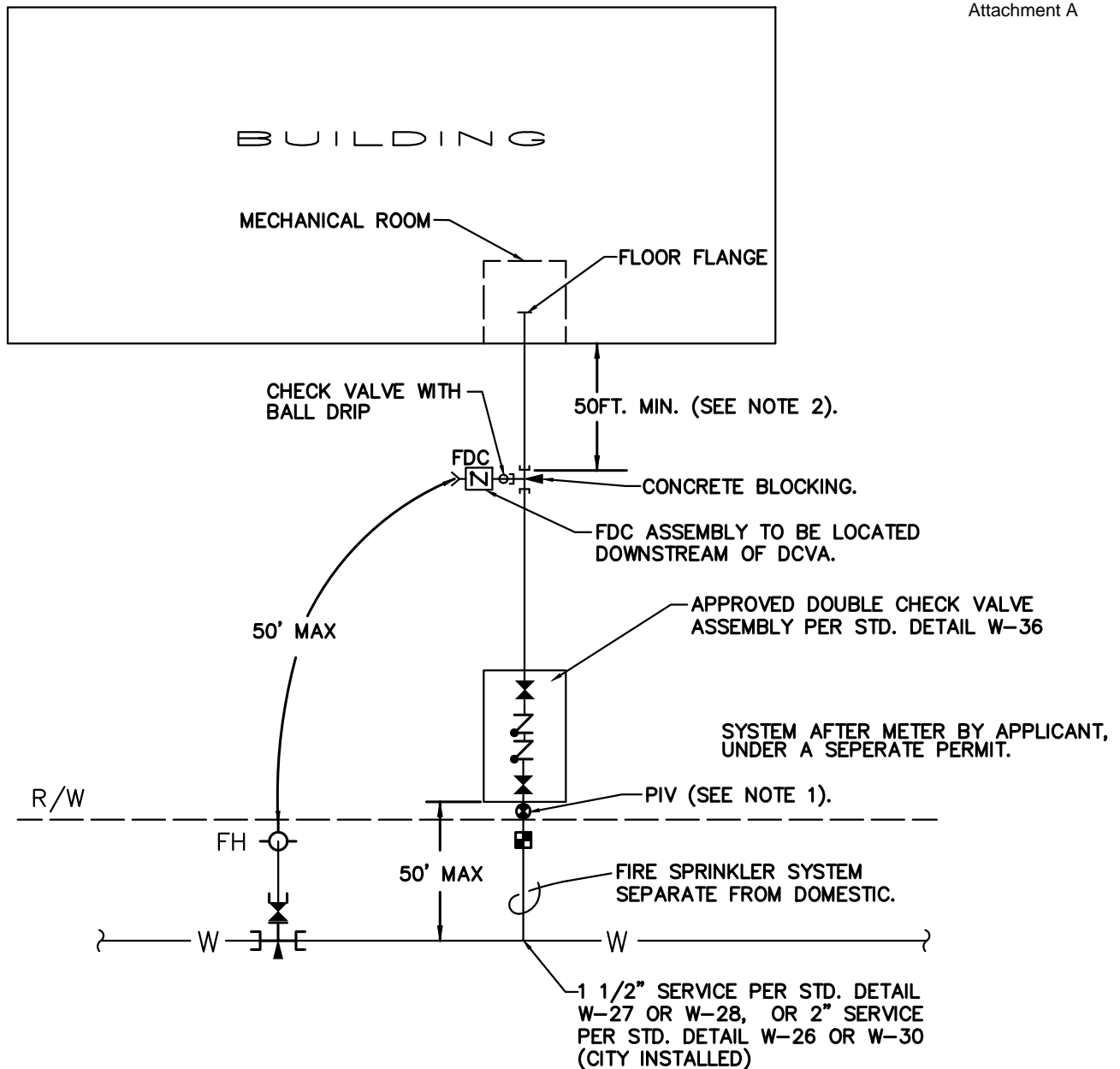
BY CITY

MAY 2018

DATE

DWG. NO.

W-38

NOTES:

1. PIV MUST BE LOCATED ON THE FIRELINE BETWEEN THE R/W LINE AND THE FDC.
2. FIRE MARSHALL SHALL APPROVE FDC LOCATION IF LESS THAN 50FT. FROM STRUCTURE.
3. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.



CITY OF NORTH BEND
 OUTSIDE DCVA INSTALLATION FOR
 1 1/2" & 2" COMMERCIAL FIRE
 SPRINKLER SYSTEMS

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

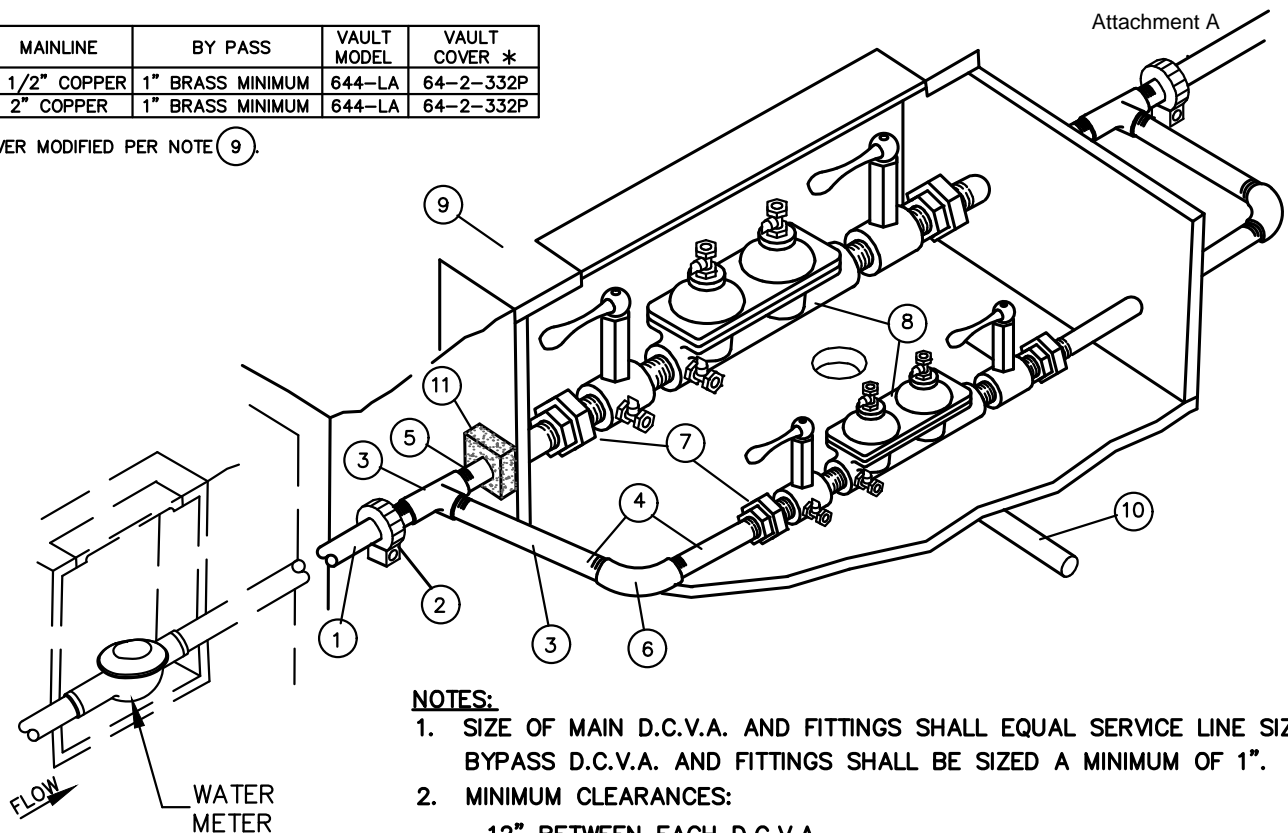
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DWG. NO.

W-39

METER SIZE	MAINLINE	BY PASS	VAULT MODEL	VAULT COVER *
1 1/2"	1 1/2" COPPER	1" BRASS MINIMUM	644-LA	64-2-332P
2"	2" COPPER	1" BRASS MINIMUM	644-LA	64-2-332P

* COVER MODIFIED PER NOTE ⑨.



NOTES:

1. SIZE OF MAIN D.C.V.A. AND FITTINGS SHALL EQUAL SERVICE LINE SIZE. BYPASS D.C.V.A. AND FITTINGS SHALL BE SIZED A MINIMUM OF 1".
2. MINIMUM CLEARANCES:
 - 12" BETWEEN EACH D.C.V.A.
 - 12" BETWEEN D.C.V.A. AND SIDE OF VAULT.
 - 12" BETWEEN D.C.V.A. AND VAULT FLOOR.
 - 24" SOIL COVER OVER SERVICE LINE.
3. INSTALL PLUGS IN ALL TEST COCKS.
4. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
5. BRASS FITTINGS.
6. WHERE ACCESS OPENING DOES NOT EXPOSE SHUT OFF VALVES, MIN. 18" CLEARANCE SHALL BE REQUIRED BETWEEN TOP OF VALVE AND UNDERSIDE OF VAULT COVER.

- ① COPPER TUBING, TYPE K. *
- ② COUPLING, MALE IRON PIPE THREAD BY PACK JOINT (COMPRESSION FITTING) FOR COPPER, MUELLER NO. H-15428 OR EQUAL. *
- ③ BRASS TEE, MAIN LINE SIZE x 1", FEMALE IRON PIPE THREAD. *
- ④ BRASS NIPPLE, LENGTH TO FIT, 1", MALE IRON PIPE THREAD. *
- ⑤ BRASS NIPPLE, MAIN LINE SIZE, LENGTH TO FIT, MALE IRON PIPE THREAD. *
- ⑥ BRASS ELBOW, 1", FEMALE IRON PIPE THREAD. *
- ⑦ BRASS UNION, MALE x FEMALE IRON PIPE THREAD. *
- ⑧ WASHINGTON STATE APPROVED DOUBLE CHECK VALVE ASSEMBLY. MUST BE INSTALLED IN APPROVED ORIENTATION.
- ⑨ CONCRETE VAULT WITH 2 LOCKING ALUMINUM LW HATCH DOORS (PART NO. HHD-36"x72"), RATED FOR H-30 LOADING, WITH SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. COVER TO READ "WATER". SIZE VAULT TO PROVIDE MINIMUM CLEARANCES LISTED IN NOTE 2.
- ⑩ DRAIN, SLOPE TO DAYLIGHT OR STORM DRAINAGE SYSTEM (DO NOT CONNECT TO SANITARY SEWER). WIRE MESH RODENT SCREEN OVER DRAIN.
- ⑪ VAULT PENETRATION THRUST BLOCK SEE STANDARD DETAIL W-56.

* TYPICAL, EACH SIDE OF D.C.V.A.



CITY OF NORTH BEND
1 1/2" & 2" DOMESTIC DOUBLE
CHECK VALVE ASSEMBLY FOR
CONTINUOUS SUPPLY
(OUTSIDE INSTALLATION)

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

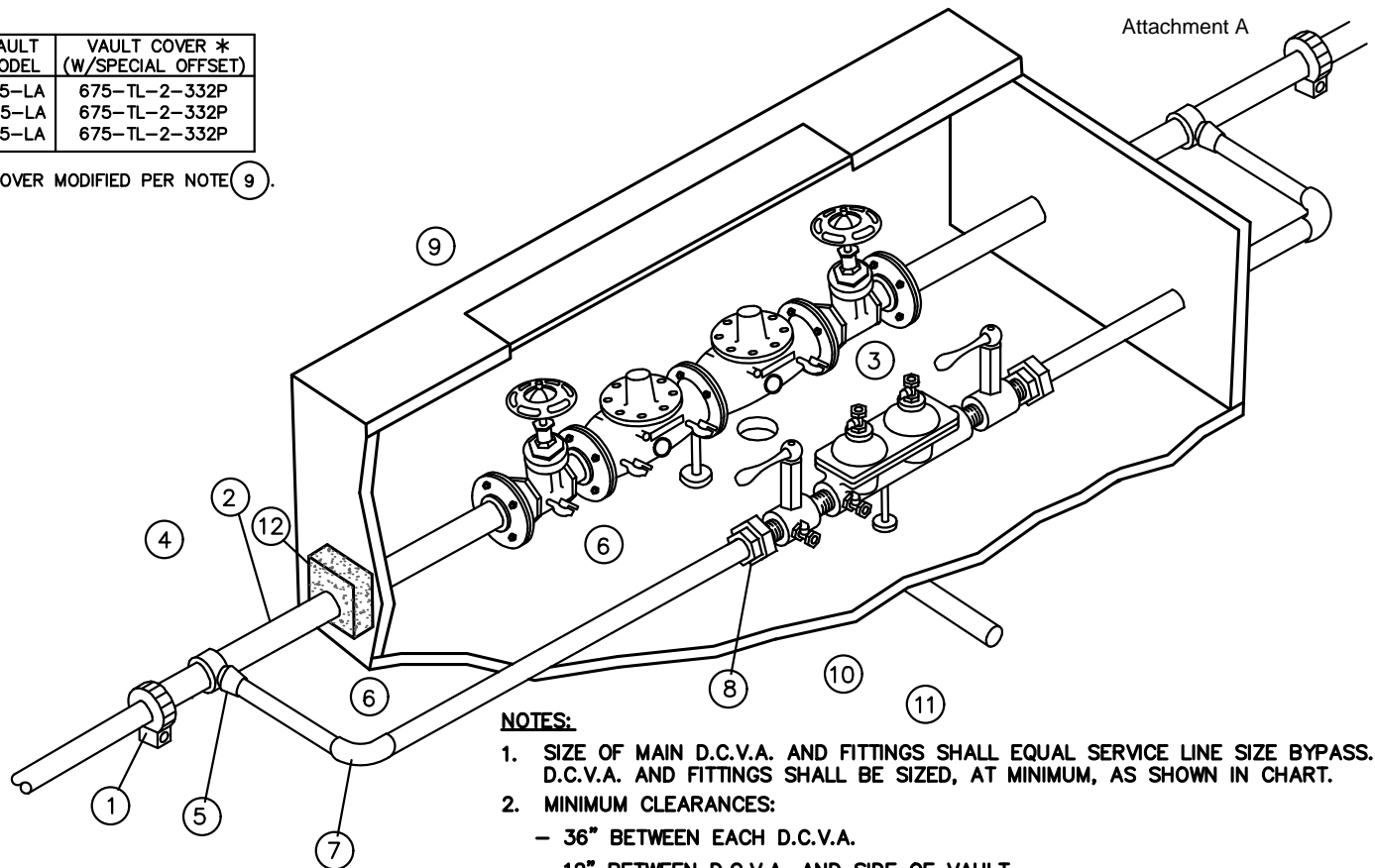
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DWG. NO.

W-41

VAULT MODEL	VAULT COVER * (W/SPECIAL OFFSET)
675-LA	675-TL-2-332P
675-LA	675-TL-2-332P
675-LA	675-TL-2-332P

* COVER MODIFIED PER NOTE 9.



NOTES:

1. SIZE OF MAIN D.C.V.A. AND FITTINGS SHALL EQUAL SERVICE LINE SIZE BYPASS. D.C.V.A. AND FITTINGS SHALL BE SIZED, AT MINIMUM, AS SHOWN IN CHART.
2. MINIMUM CLEARANCES:
 - 36" BETWEEN EACH D.C.V.A.
 - 12" BETWEEN D.C.V.A. AND SIDE OF VAULT.
 - 12" BETWEEN D.C.V.A. AND VAULT FLOOR.
 - 24" SOIL COVER OVER SERVICE LINE.
3. INSTALL PLUGS IN ALL TEST COCKS.
4. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
5. PROVIDE LADDER AND LADDER-UP PER DETAIL W-19.
6. WHERE ACCESS OPENING DOES NOT EXPOSE SHUT OFF VALVES MIN. 18" CLEARANCE SHALL BE REQUIRED BETWEEN TOP OF VALVE AND UNDERSIDE OF VAULT COVER.
7. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA AROUND HATCHES.
8. LOCATE HATCH PER DETAIL W-17.

METER SIZE	MAIN-LINE	BY PASS
3"	3"D.I.	1 1/2" COPPER MINIMUM
4"	4"D.I.	1 1/2" COPPER MINIMUM
6"	6"D.I.	2" COPPER MINIMUM

- 1 FLEX COUPLING , ROCKWELL 441 OR EQUAL. *
- 2 D.I. PIPE, P.E. X FL., LENGTH TO FIT. *
- 3 STATE APPROVED INTERNALLY LOADED DOUBLE CHECK VALVE ASSEMBLY, COMPLETE WITH (2) FULL FLOW BALL VALVE SHUT-OFF VALVES AND TEST COCKS. *
- 4 DOUBLE STRAP SERVICE SADDLE, ROMAC 202S WITH IPS TAP, OR EQUAL. *
- 5 COUPLING, OUTSIDE IRON PIPE THREAD TO COPPER COMPRESSION CONNECTION, MUELLER H-15428, OR EQUAL. *
- 6 COPPER TUBING, TYPE K. *
- 7 1/4 BEND COUPLING, COPPER TO COPPER, MUELLER H-15526, OR EQUAL. *
- 8 COUPLING, COPPER COMPRESSION CONNECTION BY FEMALE IRON PIPE THREAD, MUELLER H-15451, OR EQUAL. *
- 9 CONCRETE VAULT WITH 2 LOCKING ALUMINUM LW HATCH DOORS (PART NO. HHD-36"x72"), RATED FOR H-30 LOADING, WITH SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. COVER TO READ "WATER". SIZE VAULT TO PROVIDE MINIMUM CLEARANCES LISTED IN NOTE 2.
- 10 ADJUSTABLE PIPE STANCHIONS, BOLTED TO FLOOR.
- 11 DRAIN, SLOPE TO DAYLIGHT OR STORM DRAINAGE SYSTEM (DO NOT CONNECT TO SANITARY SEWER). WIRE MESH RODENT SCREEN OVER DRAIN.
- 12 VAULT PENETRATION THRUST BLOCK SEE STANDARD DETAIL W-56.

* TYPICAL, EACH SIDE OF D.C.V.A.



CITY OF NORTH BEND
 3" TO 6" DOMESTIC DOUBLE CHECK
 VALVE ASSEMBLY FOR CONTINUOUS
 SUPPLY
 (OUTSIDE INSTALLATION)

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

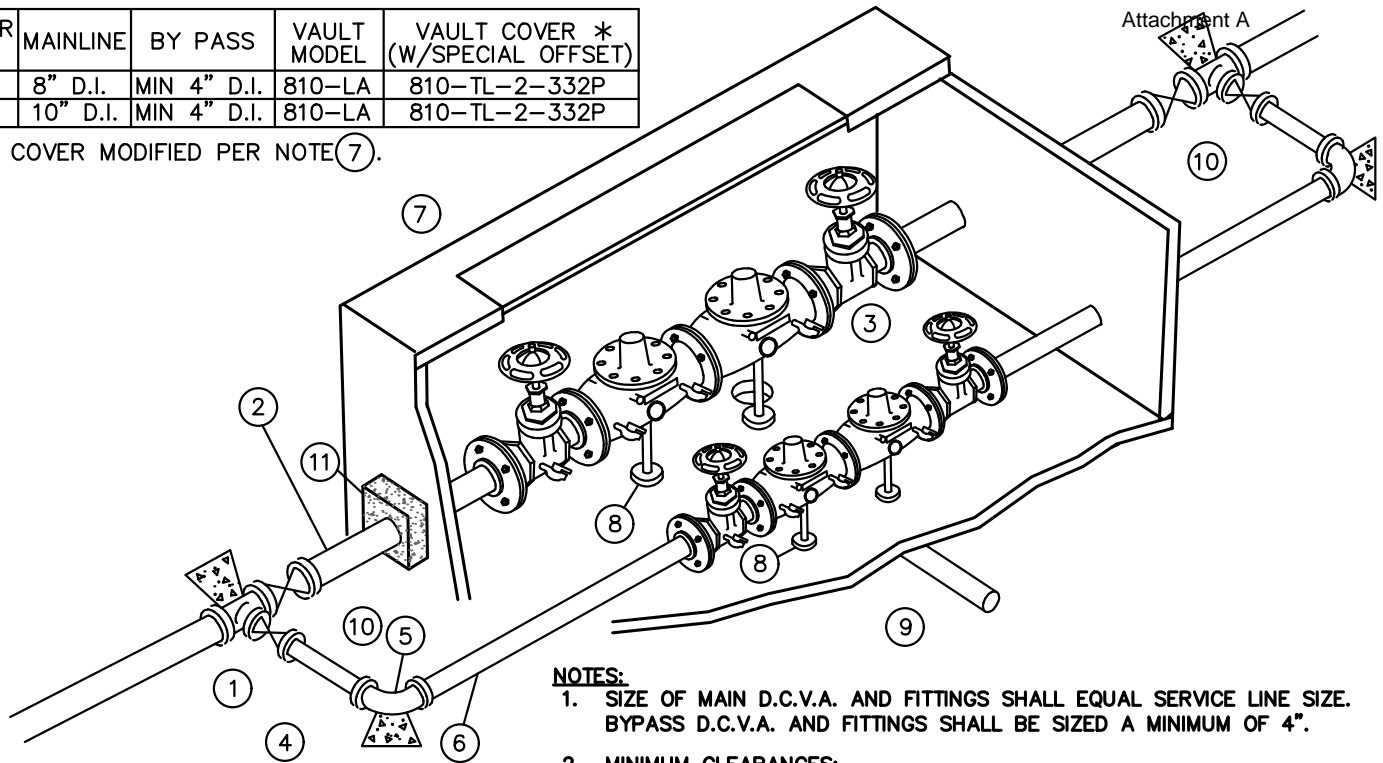
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DWG. NO.

W-42

METER SIZE	MAINLINE	BY PASS	VAULT MODEL	VAULT COVER * (W/SPECIAL OFFSET)
8"	8" D.I.	MIN 4" D.I.	810-LA	810-TL-2-332P
10"	10" D.I.	MIN 4" D.I.	810-LA	810-TL-2-332P

* COVER MODIFIED PER NOTE ⑦.



NOTES:

1. SIZE OF MAIN D.C.V.A. AND FITTINGS SHALL EQUAL SERVICE LINE SIZE. BYPASS D.C.V.A. AND FITTINGS SHALL BE SIZED A MINIMUM OF 4".
2. MINIMUM CLEARANCES:
 - 36" BETWEEN EACH D.C.V.A.
 - 12" BETWEEN D.C.V.A. AND SIDE OF VAULT.
 - 12" BETWEEN D.C.V.A. AND VAULT FLOOR.
 - 24" SOIL COVER OVER SERVICE LINE.
3. INSTALL PLUGS IN ALL TEST COCKS.
4. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
5. PROVIDE LADDER AND LADDER-UP PER DETAIL W-19.
6. WHERE ACCESS OPENING DOES NOT EXPOSE SHUT OFF VALVES MIN. 24" CLEARANCE SHALL BE REQUIRED BETWEEN TOP OF VALVE AND UNDERSIDE OF VAULT COVER.
7. ALL FITTINGS OUTSIDE VAULT SHALL INCLUDE THRUST BLOCKING AND JOINT RESTRAINT DEVICES.
8. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA AROUND HATCHES.
9. LOCATE HATCH PER DETAIL W-17.

① TEE, MJ, MAINLINE SIZE BY 4" MINIMUM BRANCH. *

② D.I. PIPE, P.E. X FL., LENGTH TO FIT. *

③ STATE APPROVED INTERNALLY LOADED DOUBLE CHECK VALVE ASSEMBLY, COMPLETE WITH (2) FULL FLOW BALL VALVE SHUT-OFF VALVES AND TEST COCKS.

④ 4" MINIMUM DI PIPE, PE x PE, LENGTH TO FIT. *

⑤ 4" MINIMUM 90° BEND, MJ. *

⑥ 4" MINIMUM DI PIPE, PE x FL, LENGTH TO FIT. *

⑦ CONCRETE VAULT WITH 2 LOCKING ALUMINUM LW HATCH DOORS (PART NO. HHD-36"x72"), RATED FOR H-30 LOADING, WITH SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. COVER TO READ "WATER". SIZE VAULT TO PROVIDE MINIMUM CLEARANCES LISTED IN NOTE 2.

⑧ ADJUSTABLE PIPE STANCHIONS, BOLTED TO FLOOR.

⑨ DRAIN, SLOPE TO DAYLIGHT OR STORM DRAINAGE SYSTEM (DO NOT CONNECT TO SANITARY SEWER). WIRE MESH RODENT SCREEN OVER DRAIN.

⑩ GATE VALVE, F.L.xM.J. (WITH VALVE BOX AND COVER).

⑪ VAULT PENETRATION THRUST BLOCK SEE STANDARD DETAIL W-56 FOR BOTH MAINLINE AND BYPASS.

* TYPICAL, EACH SIDE OF D.C.V.A.



CITY OF NORTH BEND
8" AND 10" DOMESTIC DOUBLE CHECK
VALVE ASSEMBLY FOR CONTINUOUS
SUPPLY
(OUTSIDE INSTALLATION)

APPROVED:

MARK RIGOS, P.E.

BY CITY

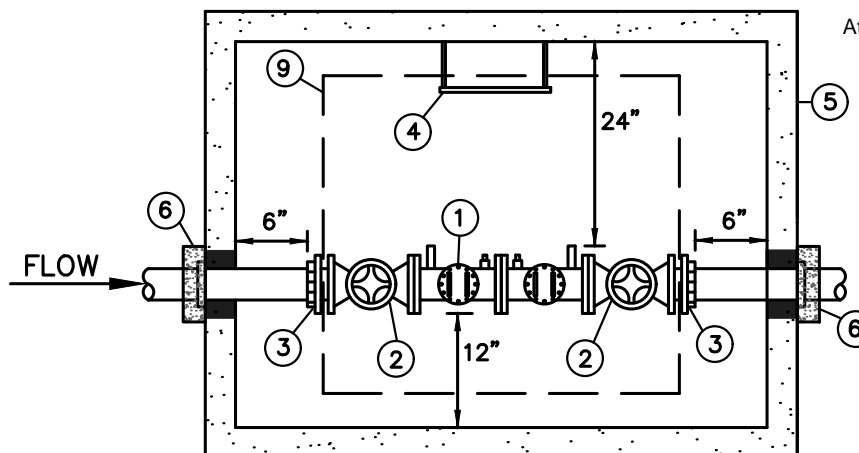
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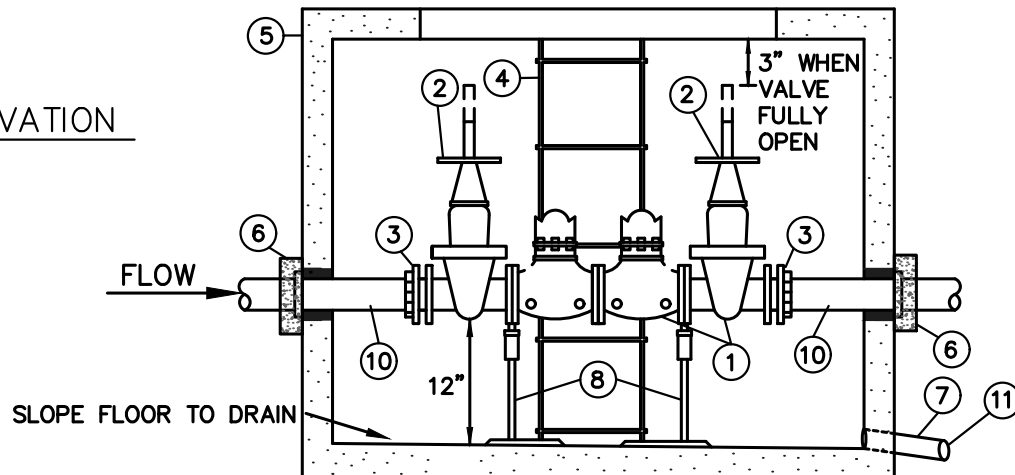
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W-43

PLAN



ELEVATION



- ① STATE APPROVED DOUBLE CHECK VALVE ASSEMBLY, COMPLETE WITH (2) RESILIENT SEATED O.S.&Y. VALVES AND (4) RESILIENT SEATED TEST COCKS.
- ② EACH VALVE SHALL BE MARKED WITH MODEL NUMBER WITH DESIGNATION OF RESILIENT SEAT: SUCH AS "RS" OR "R", WHICH MUST BE CAST, MOLDED, OR AFFIXED ONTO THE BODY OR BONNET OF THE VALVE. ALL FERROUS BODIED VALVES SHALL BE COATED WITH A MINIMUM OF 4MLS. OF EPOXY OR EQUIVALENT POLYMERIZED COATING.
- ③ MEGAFLANGE
- ④ ONE GALVANIZED STEEL LADDER TO BE SECURED TO VAULT WITH LADDER-UP (BILCO MODEL LU-2). LADDER TO BE ATTACHED TO VAULT PER STANDARD DETAIL W-19.
- ⑤ CONCRETE VAULT WITH 2 LOCKING ALUMINUM LW HATCH DOORS (PART NO. HHD-36"x72"), RATED FOR H-30 LOADING WITH SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. COVER TO READ "WATER". VAULT SHALL BE EQUAL TO UTILITY VAULT CO. MODEL LISTED IN TABLE BELOW.
- ⑥ WATER TIGHT GROUT. RESTRAIN INLET/OUTLET PIPE WITH MEGALUG MID-SPAN RESTRAINT AND THRUST BLOCK ADJACENT TO VAULT SEE STANDARD DETAIL W-56.
- ⑦ DRAIN, SLOPE TO DAYLIGHT OR STORM DRAINAGE SYSTEM, MINIMUM DIAMETER 6".
- ⑧ TWO ADJUSTABLE PIPE STANCHIONS, BOLTED TO FLOOR.
- ⑨ ACCESS TO BE CENTERED OVER ASSEMBLY.
- ⑩ CL. 52 D.I., PEXFL WITH RETAINER GLANDS.
- ⑪ INSTALL WIRE MESH RODENT SCREEN OVER DRAIN OUTLET.

NOTES:

1. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
2. TEE AND GATE VALVES REQUIRED ON MAIN.
3. ALL CLEARANCES SHOWN ARE MINIMUM.
4. VAULTS SHALL NOT BE INSTALLED IN AREAS WITH VEHICULAR TRAFFIC.
5. IN CENTRAL BUSINESS DISTRICT, 3" THROUGH 6" ASSEMBLIES SHALL CONNECT TO WATER MAIN WITH 8" PIPE.
6. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA AROUND HATCHES.

SIZE	MIN. VAULT SIZE (INSIDE)			UTIL. VAULT CO. MODEL	UTIL. VAULT CO. COVER
	W	L	H		
3"	3'-8"	4'-8"	3'-3"	644-LA	64-2-332P
4"	3'-10"	5'-3"	3'-8"	575-LA	57TL-2-332P
6"	4'-0"	6'-6"	4'-5"	577-LA	57TL-20332P
8"	4'-5"	7'-8"	5'-3"	4484-LA	4484-TL2-332P
10"	4'-8"	8'-8"	6'-1"	5106-LA	5106-TL3-332

* COVER MODIFIED PER NOTE ⑤.



CITY OF NORTH BEND
3" TO 10" DOUBLE CHECK VALVE
ASSEMBLY FOR DOMESTIC AND
IRRIGATION SERVICES
(OUTSIDE INSTALLATION)

APPROVED:

MARK RIGOS, P.E.

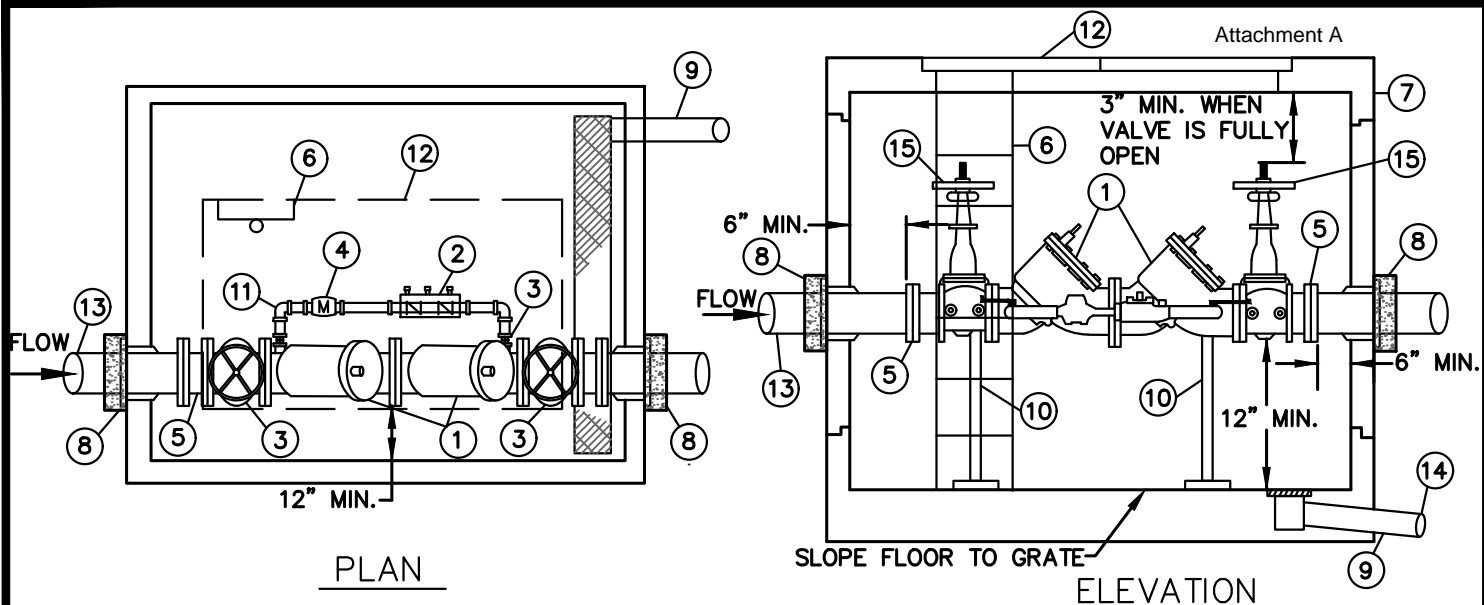
BY CITY

MAY 2018

DATE

DWG. NO.

W-44



- ① STATE APPROVED DOUBLE CHECK VALVE ASSEMBLY, COMPLETE WITH (2) RESILIENT SEATED O.S.&Y. VALVES AND (4) RESILIENT SEATED TEST COCKS, AND BRASS OR COPPER DETECTOR BY-PASS. FACE TEST COCKS TOWARD CENTER OF VAULT AND ACCESSIBLE.
- ② STATE APPROVED 3/4" DOUBLE CHECK VALVE ASSEMBLY, COMPLETE WITH (2) RESILIENT SEATED BALL VALVES AND (4) RESILIENT SEATED TEST COCKS. FACE TEST COCKS TOWARD CENTER OF VAULT.
- ③ EACH VALVE SHALL BE MARKED WITH MODEL NUMBER WITH DESIGNATION OF RESILIENT SEAT: SUCH AS "RS" OR "R", WHICH MUST BE CAST, MOLDED, OR AFFIXED ONTO THE BODY OR BONNET OF THE VALVE. ALL FERROUS BODIED VALVES SHALL BE COATED WITH A MINIMUM OF 4MLS. OF EPOXY OR EQUIVALENT POLYMERIZED COATING.
- ④ 3/4" METER (CUBIC FEET READING)
- ⑤ MEGAFLANGE
- ⑥ ONE GALVANIZED STEEL LADDER TO BE SECURED TO VAULT WITH LADDER-UP (BILCO MODEL LU-2). LADDER TO BE ATTACHED TO VAULT PER STANDARD DETAIL W-19.
- ⑦ CONCRETE VAULT WITH 2 LOCKING ALUMINUM LW HATCH DOORS (PART NO. HHD-42"x72"), RATED FOR H-30 LOADING, OFFSET WITH SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. COVER TO READ "WATER". VAULT SHALL BE EQUAL TO UTILITY VAULT CO. MODEL LISTED IN THE TABLE BELOW.
- ⑧ WATER TIGHT GROUT. RESTRAIN INLET/OUTLET PIPE WITH MEGALUG MID-SPAN RESTRAINT AND THRUST BLOCK ADJACENT TO VAULT SEE STANDARD DETAIL W-56.
- ⑨ DRAIN, SLOPE TO DAYLIGHT OR STORM DRAINAGE SYSTEM, MINIMUM DIAMETER 6".
- ⑩ TWO ADJUSTABLE PIPE STANCHIONS, BOLTED TO FLOOR.
- ⑪ ALL PLUMBING FOR BY-PASS TO BE COPPER AND BRASS.
- ⑫ ACCESS TO BE CENTERED OVER ASSEMBLY.
- ⑬ CL. 52 D.I., PEXFL WITH RETAINER GLANDS.
- ⑭ INSTALL WIRE MESH RODENT SCREEN OVER DRAIN OUTLET.
- ⑮ 2 VALVE SUPERVISORY SWITCHES, SPDT, PER FIRE DEPARTMENT REQUIREMENTS (1 SWITCH PER VALVE).

NOTES:

1. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
2. TEE & GATE VALVES REQUIRED ON MAIN.
3. WHEN DOUBLE CHECK VALVE ASSEMBLY IS USED IN SAME LINE WITH DOMESTIC BUILDING METER, METERED DETECTOR BYPASS SHALL BE OMITTED.
4. ALL CLEARANCES SHOWN ARE MINIMUM.
5. VAULTS SHALL NOT BE INSTALLED IN AREAS WITH VEHICULAR TRAFFIC.
6. IN CENTRAL BUSINESS DISTRICT, 3" THROUGH 6" ASSEMBLIES SHALL CONNECT TO WATER MAIN WITH 8" PIPE.
7. FDC TO BE LOCATED DOWNSTREAM OF DCVA. FDC LINE & CHECK VALVE MAY BE ROUTED INSIDE THE DCVA VAULT PROVIDED ALL PROVISIONS IN STANDARD DETAIL W-48 ARE MET.
8. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA
9. SECURE A VALVE MARKER, PER DETAIL W-55, TO EACH GATE VALVE HANDLE.
10. LONGER VALVE ASSEMBLIES MAY REQUIRE A LARGER VAULT TO MEET THE REQUIRED CLEARANCES. SUBMIT FOR APPROVAL.

SIZE	MIN. VAULT SIZE (INSIDE)			UTIL. VAULT CO. MODEL	UTIL. VAULT CO. COVER *
	W	L	H		
3"	4'-2"	4'-8"	3'-3"	675-WA	675-2-332P
4"	4'-6"	5'-3"	3'-8"	675-WA	675-2-332P
6"	4'-8"	6'-6"	4'-5"	675-WA	675-2-332P
8"	5'-0"	7'-8"	5'-3"	687-LA	687-TL-2-332
10"	5'-2"	8'-8"	6'-1"	5106-LA	5106-TL3-332

* COVER MODIFIED PER NOTE 7.



CITY OF NORTH BEND
3" TO 10" DOUBLE CHECK DETECTOR
ASSEMBLY FOR FIRE SPRINKLER
SYSTEMS
(OUTSIDE INSTALLATION)

APPROVED:

MARK RIGOS, P.E.

BY CITY

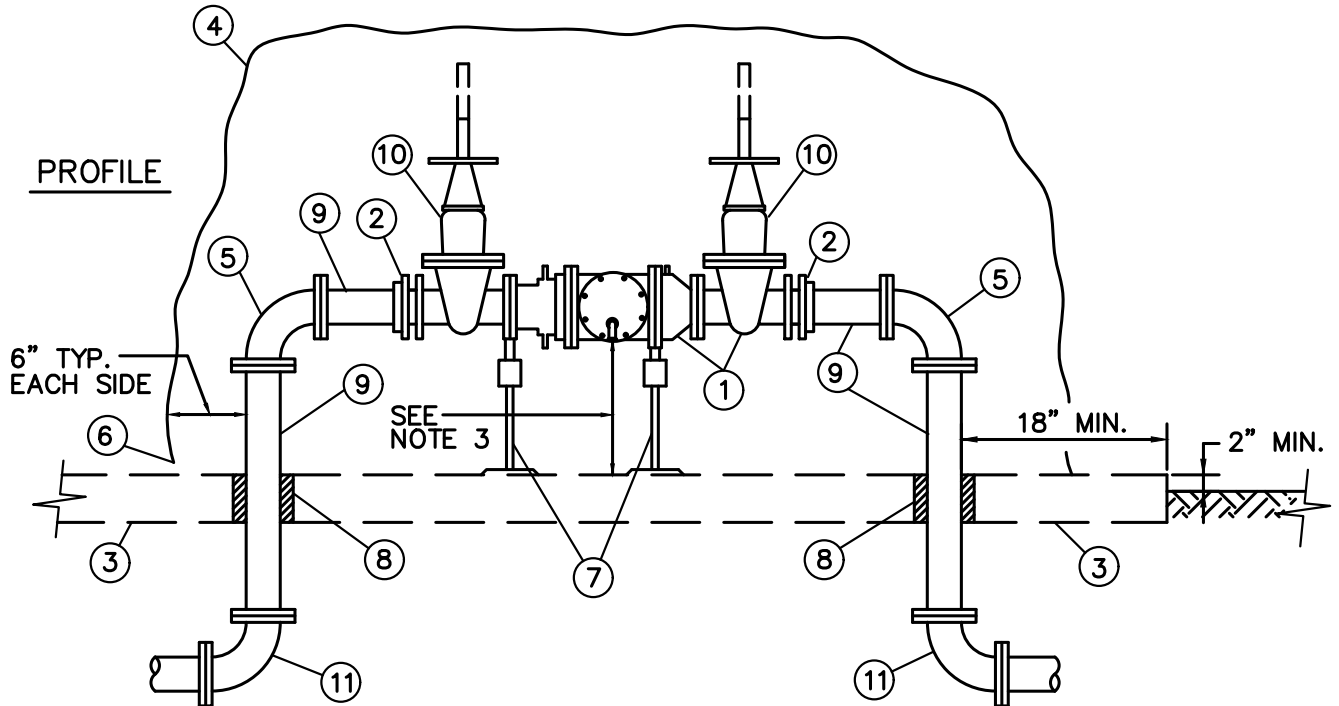
MAY 2018

DATE

DWG. NO.

W-45

NOTICE: OUTSIDE-INSTALLED RPBA IS NOT ALLOWED IN BURIED VAULTS. DEVELOPER SHALL PROVIDE UTILITIES WITH A DESIGN FOR AN ABOVE-GROUND ENCLOSURE THAT DRAINS TO DAY LIGHT FOR APPROVAL. CLEARANCES SHOWN BELOW SHALL APPLY TO THE ENCLOSURE.



- ① STATE APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY, COMPLETE WITH (2) RESILIENT SEATED O.S.&Y. GATE VALVES (2" AND SMALLER: FULL FLOW RESILIENT SEATED BALL VALVES) AND (4) RESILIENT SEATED TEST COCKS.
- ② MEGAFLANGE. (2" AND SMALLER: BRASS UNION, M.I.P.T.xF.I.P.T.).
- ③ 4" CONC. (2,000 PSI) SLAB EXTENDED 6" BEYOND ENCLOSURE (ALL DIRECTIONS). REINFORCED W/ 6x6 W2.9xW2.9 WWF.
- ④ APPROVED ENCLOSURE. CONTRACTOR TO VERIFY REQUIRED SIZE.
- ⑤ 90° BEND, FL (2" AND SMALLER: BRASS, F.I. P.T.).
- ⑥ ENCLOSURE DRAIN, SIZED IN ACCORDNCE WITH PNWS-AWWA CROSS CONNECTION CONTROL MANUAL (7TH ADDITION) FIGURE 6-1.
- ⑦ TWO ADJUSTABLE PIPE STANCHIONS, BOLTED TO SLAB.
- ⑧ PVC SLEEVE THROUGH SLAB.
- ⑨ CL. 52 D.I., PEXFL (2" AND SMALLER: BRASS NIPLE, M.I.P.T.)
- ⑩ EACH VALVE SHALL BE MARKED WITH MODEL NUMBER WITH DESIGNATION OF RESILIENT SEAT: SUCH AS "RS" OR "R", WHICH MUST BE CAST, MOLDED, OR AFFIXED ONTO THE BODY OR BONNET OF THE VALVE. ALL FERROUS BODIED VALVES SHALL BE COATED WITH A MINIMUM OF 4MLS. OF EPOXY OR EQUIVALENT POLYMERIZED COATING.
- ⑪ 90° BEND, RESTRAINED JOINT (2" AND SMALLER: BRASS, COMPRESSION x F.I.P.T.).

NOTES:

1. PROVIDE ELECTRICAL HEAT TAPE FREEZE PROTECTION.
2. WHEN THE REDUCED PRESSURE ASSEMBLY IS LOCATED INSIDE A BUILDING A SIZED DRAIN LINE SHALL BE PROVIDED FOR RELIEF PORT. THERE MUST BE AN APPROVED AIR GAP BETWEEN THE RELIEF PORT AND DRAIN.
3. ALLOW 12"+ NOMINAL DIAMETER OF ASSEMBLY CLEARANCE BELOW RELIEF PORT FOR REPAIR. ALSO PROVIDE 12" MIN. AIR GAP CLEARANCE FROM TOP OF DRAIN PIPE.
4. REDUCED PRESSURE BACKFLOW ASSEMBLY WILL BE ALLOWED TO BE INSTALLED IN VAULTS ONLY IN CASES WHERE NO OTHER MEANS OF INSTALLATION IS AVAILABLE AND AS APPROVED BY A CITY OF BELLEVUE WATER QUALITY TECHNICIAN.
5. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
6. ALL CLEARANCES SHOWN ARE MINIMUM.
7. ENCLOSURES SHALL NOT BE INSTALLED IN AREAS WITH VEHICULAR TRAFFIC.
8. TEE AND GATE VALVES REQUIRED ON MAIN.
9. IN CENTRAL BUSINESS DISTRICT, 3" THROUGH 6" ASSEMBLIES SHALL CONNECT TO WATER MAIN WITH 8" PIPE.
10. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA AROUND ENCLOSURES.
11. RPBA INSTALLATIONS THAT DIFFER FROM THE STANDARD DETAIL MUST BE APPROVED BY THE CROSS CONNECTION PROGRAM ADMINISTRATOR (425-452-5208) AND WILL BE REVIEWED ON A CASE-BY-CASE BASIS TO ENSURE THEY MEET CURRENT MINIMUM REQUIREMENTS FOR INSTALLATION AND FREEZE PROTECTION.



CITY OF NORTH BEND
REDUCED PRESSURE BACKFLOW
ASSEMBLY FOR DOMESTIC AND
IRRIGATION SERVICE
(OUTSIDE INSTALLATION)

APPROVED:

MARK RIGOS, P.E.

BY CITY

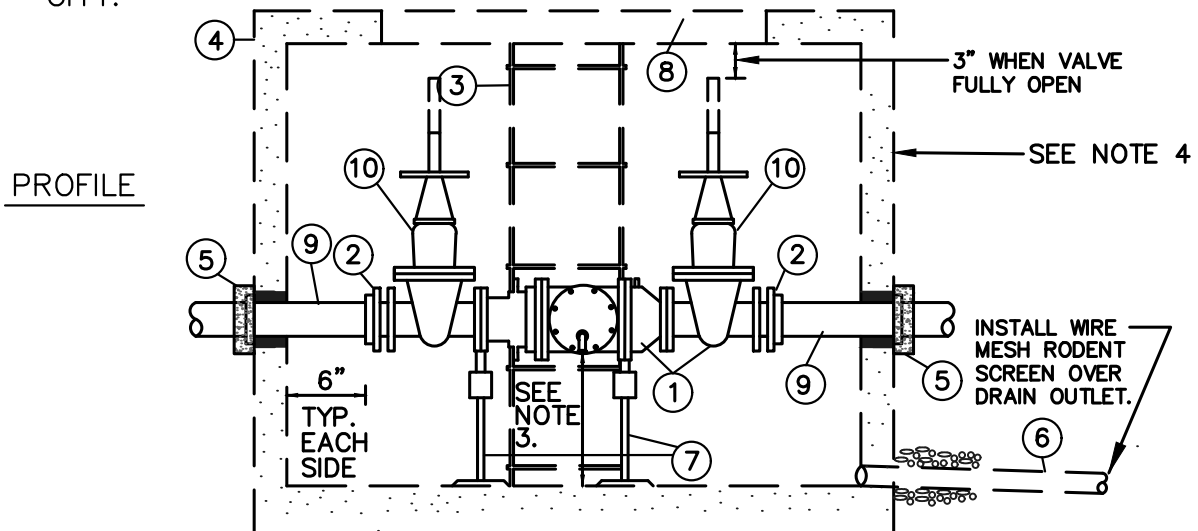
MAY 2018

DATE

DWG. NO.

W-46A

NOTICE: OUTSIDE-INSTALLED RPBA IS NOT ALLOWED IN BURIED VAULTS. DEVELOPER SHALL PROVIDE UTILITIES WITH A DESIGN FOR AN ABOVE-GROUND ENCLOSURE THAT DRAINS TO DAY LIGHT FOR APPROVAL. THE BURIED VAULT DETAIL SHOWN BELOW IS ONLY ALLOWED WHEN GIVEN SPECIAL APPROVAL BY THE CITY.



- ① STATE APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY, COMPLETE WITH (2) RESILIENT SEATED O.S.&Y. GATE VALVES AND (4) RESILIENT SEATED TEST COCKS. FACE TEST COCKS TOWARD CENTER OF VAULT AND ACCESSABLE.
- ② MEGAFLANGE
- ③ ONE GALVANIZED STEEL LADDER TO BE SECURED TO VAULT WITH LADDER-UP (BILCO MODEL LU-2). LADDER TO BE ATTACHED TO VAULT PER STANDARD DETAIL W-19.
- ④ CONCRETE VAULT WITH 2 LOCKING ALUMINUM LW HATCH DOORS (PART NO. HHD-36"x72") RATED FOR H-30 LOADING WITH SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. COVER TO READ "WATER". VAULT SHALL BE EQUAL TO UTILITY VAULT CO. MODEL LISTED IN THE TABLE BELOW.
- ⑤ WATER TIGHT GROUT. RESTRAIN INLET/OUTLET PIPE WITH MEGALUG MID-SPAN RESTRAINT AND THRUST BLOCK ADJACENT TO VAULT SEE STANDARD DETAIL W-56.
- ⑥ DRAIN, SLOPE TO DAYLIGHT WITH BORE SIGHTED DAYLIGHT DRAIN CLEARLY VISIBLE END TO END WITH STRAIGHT PIPE, SIZED TO MEET FLOW REQUIREMENTS OF RPBA RELIEF VENT.
- ⑦ TWO ADJUSTABLE PIPE STANCHIONS, BOLTED TO FLOOR.
- ⑧ ACCESS TO BE CENTERED OVER ASSEMBLY.
- ⑨ CL. 52 D.I., PEXFL WITH RETAINER GLANDS.
- ⑩ EACH VALVE SHALL BE MARKED WITH MODEL NUMBER WITH DESIGNATION OF RESILIENT SEAT: SUCH AS "RS" OR "R", WHICH MUST BE CAST, MOLDED, OR AFFIXED ONTO THE BODY OR BONNET OF THE VALVE. ALL FERROUS BODIED VALVES SHALL BE COATED WITH A MINIMUM OF 4MLS. OF EPOXY OR EQUIVALENT POLYMERIZED COATING.

SIZE	MIN. VAULT SIZE (INSIDE)			UTIL. VAULT CO. MODEL	UTIL. VAULT CO. COVER *
	W	L	H		
3"	4'-3"	4'-8"	3'-11"	575-LA	64-2-332P
4"	4'-3"	5'-3"	4'-7"	577-LA	57TL-2-332P
6"	4'-4"	6'-6"	5'-5"	4484-LA	4484-TL2-332P
8"	5'-2"	7'-7"	7'-1"	687-LA	687-TL-2-332
10"	5'-4"	8'-8"	8'-0"	5106-2X	5106-TL3-332

* COVER MODIFIED PER NOTE ④.

NOTES:

1. DAYLIGHT DRAIN MUST BE ABLE TO BE LINE SIGHTED, INSTALLED ABOVE MAXIMUM FLOOD LEVEL, AND BE ABLE TO HANDLE THE VOLUME OF WATER THAT CAN BE DISCHARGED FROM THE RELIEF VALVE PORT.
2. WHEN THE REDUCED PRESSURE ASSEMBLY IS LOCATED INSIDE A BUILDING A SIZED DRAIN LINE SHALL BE PROVIDED FOR RELIEF PORT. THERE MUST BE AN APPROVED AIR GAP BETWEEN THE RELIEF PORT AND DRAIN.
3. ALLOW 12"+ NOMINAL DIAMETER OF ASSEMBLY CLEARANCE BELOW RELIEF PORT FOR REPAIR. ALSO PROVIDE 12" MIN. AIR GAP CLEARANCE FROM TOP OF DRAIN PIPE.
4. REDUCED PRESSURE BACKFLOW ASSEMBLY WILL BE ALLOWED TO BE INSTALLED IN VAULTS ONLY IN CASES WHERE NO OTHER MEANS OF INSTALLATION IS AVAILABLE AND AS APPROVED BY A CITY OF BELLEVUE WATER QUALITY TECHNICIAN.
5. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
6. MINIMUM CLEARANCE BETWEEN ASSEMBLY AND WALL ON LADDER SIDE OF VAULT IS 24". MINIMUM CLEARANCE FROM OPPOSITE WALL IS 12". ALL CLEARANCES SHOWN ARE MINIMUM.
7. VAULTS SHALL NOT BE INSTALLED IN AREAS WITH VEHICULAR TRAFFIC.
8. TEE AND GATE VALVES REQUIRED ON MAIN.
9. IN CENTRAL BUSINESS DISTRICT, 3" THROUGH 6" ASSEMBLIES SHALL CONNECT TO WATER MAIN WITH 8" PIPE.
10. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA AROUND HATCHES.
11. RPBA INSTALLATIONS THAT DIFFER FROM THE STANDARD DETAIL MUST BE APPROVED BY THE CROSS CONNECTION PROGRAM ADMINISTRATOR (425-452-5208) AND WILL BE REVIEWED ON A CASE-BY-CASE BASIS TO ENSURE THEY MEET CURRENT MINIMUM REQUIREMENTS FOR INSTALLATION AND FREEZE PROTECTION.



CITY OF NORTH BEND
3" TO 10" REDUCED PRESSURE
BACKFLOW ASSEMBLY FOR DOMESTIC
AND IRRIGATION SERVICE
(BURIED VAULT INSTALLATION)

APPROVED:

MARK RIGOS, P.E.

BY CITY

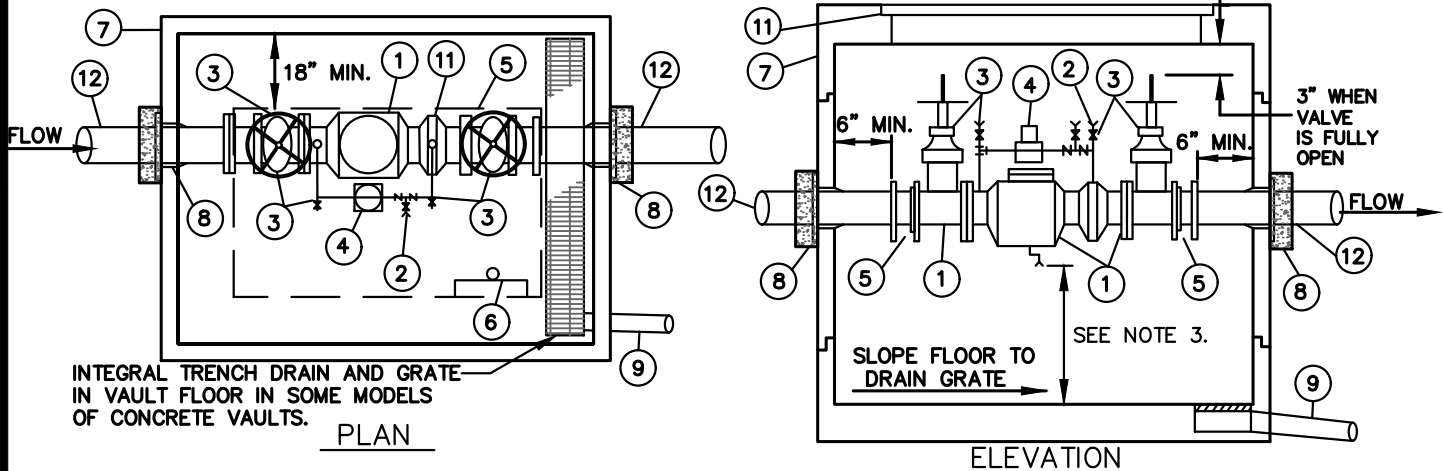
MAY 2018

DATE

DWG. NO.

W-46B

NOTICE: OUTSIDE-INSTALLED RPBA IS NOT ALLOWED IN BURIED VAULTS. DEVELOPER SHALL PROVIDE UTILITIES WITH A DESIGN FOR AN ABOVE-GROUND ENCLOSURE THAT DRAINS TO DAY LIGHT FOR APPROVAL. CLEARANCES SHOWN BELOW SHALL APPLY TO THE ENCLOSURE. THE BURIED VAULT DETAIL SHOWN BELOW IS ONLY ALLOWED WHEN GIVEN SPECIAL APPROVAL BY THE CITY.



- ① STATE APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY, COMPLETE WITH (2) RESILIENT SEATED O.S.&Y. GATE VALVES AND (4) RESILIENT SEATED TEST COCKS, AND BRASS OR COPPER DETECTOR BY-PASS, CENTERED IN VAULT.
- ② STATE APPROVED 3/4" REDUCED PRESSURE ASSEMBLY ON BY-PASS, COMPLETE WITH (2) RESILIENT SEATED BALL VALVES AND (4) RESILIENT SEATED TEST COCKS.
- ③ EACH VALVE SHALL BE MARKED WITH MODEL NUMBER WITH DESIGNATION OF RESILIENT SEAT: SUCH AS "RS OR "R", WHICH MUST BE CAST, MOLDED, OR AFFIXED ONTO THE BODY OR BONNET OF THE VALVE. ALL FERROUS BODIED VALVES SHALL BE COATED WITH A MIN. OF 4mils d.f.t. EPOXY OR EQUIVALENT POLYMERIZED COATING.
- ④ 3/4" METER (CUBIC FEET READING) AS REQUIRED.
- ⑤ MEGAFLANGE
- ⑥ ONE GALVANIZED STEEL LADDER TO BE SECURED TO VAULT WITH LADDER-UP (BILCO MODEL LU-2). LADDER TO BE ATTACHED TO VAULT PER STANDARD DETAIL W-19.
- ⑦ CONCRETE VAULT WITH 2 LOCKING ALUMINUM LW HATCH DOORS (PART NO. HHD-42"x72") RATED FOR H-30 LOADING WITH SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. COVER TO READ "WATER". VAULT SHALL BE EQUAL TO UTILITY VAULT CO. MODEL LISTED IN TABLE BELOW.
- ⑧ WATER TIGHT GROUT. RESTRAIN INLET/OUTLET PIPE WITH MEGALUG MID-SPAN RESTRAINT AND THRUST BLOCK ADJACENT TO VAULT SEE STANDARD DETAIL W-56.
- ⑨ DRAIN, SLOPE TO DAYLIGHT WITH BORE SIGHTED DAYLIGHT DRAIN CLEARLY VISIBLE END TO END WITH STRAIGHT PIPE, SIZED TO MEET FLOW REQUIREMENTS OF RPBA RELIEF VENT. INSTALL WIRE MESH RODENT SCREEN OVER DRAIN OUTLET.
- ⑩ TWO ADJUSTABLE PIPE STANCHIONS, BOLTED TO FLOOR.
- ⑪ ACCESS TO BE CENTERED OVER ASSEMBLY.
- ⑫ CL. 52 D.I., PEXFL WITH RETAINER GLANDS.
- ⑬ VALVE SUPERVISORY SWITCH, SPDT, PER FIRE DEPARTMENT REQUIREMENTS.

SIZE	MIN. VAULT SIZE (INSIDE)			UTIL. VAULT CO. MODEL	UTIL. VAULT CO. COVER *
	W	L	H		
3"	4'-9"	4'-8"	3'-11"	675-WA	675-2-332P
4"	5'-0"	5'-3"	4'-7"	675-WA	675-2-332P
6"	5'-1"	6'-6"	5'-5"	676-WA	676-2-332P
8"	5'-9"	7'-7"	7'-1"	687-LA	687-TL-2-332
10"	5'-10"	8'-8"	8'-0"	612-2X	612-3-332P

* COVER MODIFIED PER NOTE ⑦.

NOTES:

1. DAYLIGHT DRAIN MUST BE ABLE TO BE LINE SIGHTED, INSTALLED ABOVE MAXIMUM FLOOD LEVEL, AND BE ABLE TO HANDLE THE VOLUME OF WATER THAT CAN BE DISCHARGED FROM THE RELIEF VALVE PORT.
2. WHEN THE REDUCED PRESSURE ASSEMBLY IS LOCATED INSIDE A BUILDING A SIZED DRAIN LINE SHALL BE PROVIDED FOR RELIEF PORT. THERE MUST BE AN APPROVED AIR GAP BETWEEN THE RELIEF PORT AND DRAIN.
3. ALLOW 12"+ NOMINAL DIAMETER OF ASSEMBLY CLEARANCE BELOW RELIEF PORT FOR REPAIR. ALSO PROVIDE 12MIN. AIR GAP CLEARANCE FROM TOP OF DRAIN PIPE.
4. REDUCED PRESSURE BACKFLOW ASSEMBLY WILL BE ALLOWED TO BE INSTALLED IN VAULTS ONLY IN CASES WHERE NO OTHER MEANS OF INSTALLATION IS AVAILABLE AND AS APPROVED BY A CITY OF BELLEVUE WATER QUALITY TECHNICIAN.
5. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
6. MINIMUM CLEARANCE BETWEEN ASSEMBLY AND WALL ON LADDER SIDE OF VAULT IS 24". MINIMUM CLEARANCE FROM OPPOSITE WALL 12". ALL CLEARANCES SHOWN ARE MINIMUM.
7. VAULTS SHALL NOT BE INSTALLED IN AREAS WITH VEHICULAR TRAFFIC.
8. TEE AND GATE VALVES REQUIRED ON MAIN.
9. IN CENTRAL BUSINESS DISTRICT, 3" THROUGH 6" ASSEMBLIES SHALL CONNECT TO WATER MAIN WITH 8" PIPE.
10. FDC TO BE LOCATED DOWNSTREAM OF RPBA. FDC LINE AND CHECK VALVE MAY BE ROUTED INSIDE THE RPBA VAULT PROVIDED ALL PROVISIONS OF STANDARD DETAIL W-48 ARE MET.
11. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA AROUND HATCHES.
12. SECURE A VALVE MARKER, PER DETAIL W-55, TO EACH GATE VALVE HANDLE.
13. LONGER VALVE ASSEMBLIES MAY REQUIRE A LARGER VAULT TO MEET THE REQUIRED CLEARANCES. SUBMIT FOR APPROVAL.
14. RPBA INSTALLATIONS THAT DIFFER FROM THE STANDARD DETAIL MUST BE APPROVED BY THE CROSS CONNECTION PROGRAM ADMINISTRATOR (425-452-5208) AND WILL BE REVIEWED ON A CASE-BY-CASE BASIS TO ENSURE THEY MEET CURRENT MINIMUM REQUIREMENTS FOR INSTALLATION AND FREEZE PROTECTION.



CITY OF NORTH BEND
3" TO 10" REDUCED PRESSURE
DETECTOR ASSEMBLY FOR FIRE
SPRINKLER SYSTEMS
(OUTSIDE INSTALLATION)

APPROVED:

MARK RIGOS, P.E.

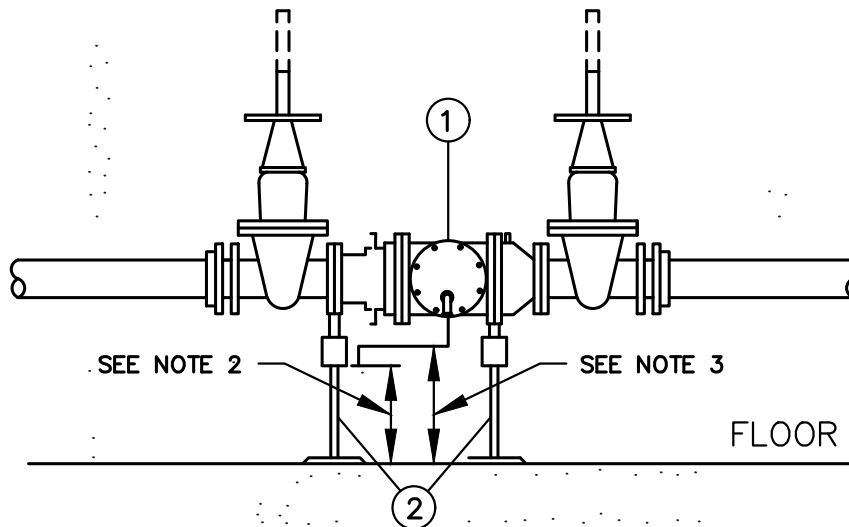
BY CITY

MAY 2018

DATE

DWG. NO.

W-47



- ① LINE-SIZED WA STATE APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY, COMPLETE WITH (2) RESILIENT SEATED O.S.&Y. GATE VALVES AND (4) RESILIENT SEATED TEST COCKS.
- ② TWO ADJUSTABLE PIPE STANCHIONS, BOLTED TO FLOOR. REQUIRED FOR ASSEMBLIES 2 1/2" AND LARGER.

NOTES:

1. WHEN THE REDUCED PRESSURE ASSEMBLY IS LOCATED INSIDE A BUILDING A SIZED DRAIN LINE SHALL BE PROVIDED FOR RELIEF PORT. THERE MUST BE AN APPROVED AIR GAP BETWEEN THE RELIEF PORT AND DRAIN.
2. ALLOW 12"+ NOMINAL DIAMETER OF ASSEMBLY CLEARANCE BELOW RELIEF PORT FOR REPAIR. MAXIMUM CLEARANCE OF 5'.
3. ASSEMBLY TO BE MAINTAINED BY OWNER AND ANNUAL CERTIFICATION REQUIRED.
4. SIDE CLEARANCES TO WALL;
VALVE SIZE 2" AND LESS: 6" CLEARANCE.
VALVE SIZE 3" AND ABOVE: 12" CLEARANCE.
5. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
6. PROTECT AGAINST FREEZING OR DAMAGE. USE HEAT-TAPE IF AREA IS SUBJECT TO FREEZING.
7. INTERIOR WATER APPURTENANCES MUST CONFORM TO UNIFORM PLUMBING CODE REQUIREMENTS.
8. DEVICE TO BE INSTALLED NO HIGHER THAN 5 FEET ABOVE FLOOR.
9. RPBA INSTALLATIONS THAT DIFFER FROM THE STANDARD DETAIL MUST BE APPROVED BY THE CROSS CONNECTION PROGRAM ADMINISTRATOR (425-452-5208) AND WILL BE REVIEWED ON A CASE-BY-CASE BASIS TO ENSURE THEY MEET CURRENT MINIMUM REQUIREMENTS FOR INSTALLATION AND FREEZE PROTECTION.



CITY OF NORTH BEND

REDUCED PRESSURE BACKFLOW
ASSEMBLY (INSIDE INSTALLATION)

APPROVED:

MARK RIGOS, P.E.

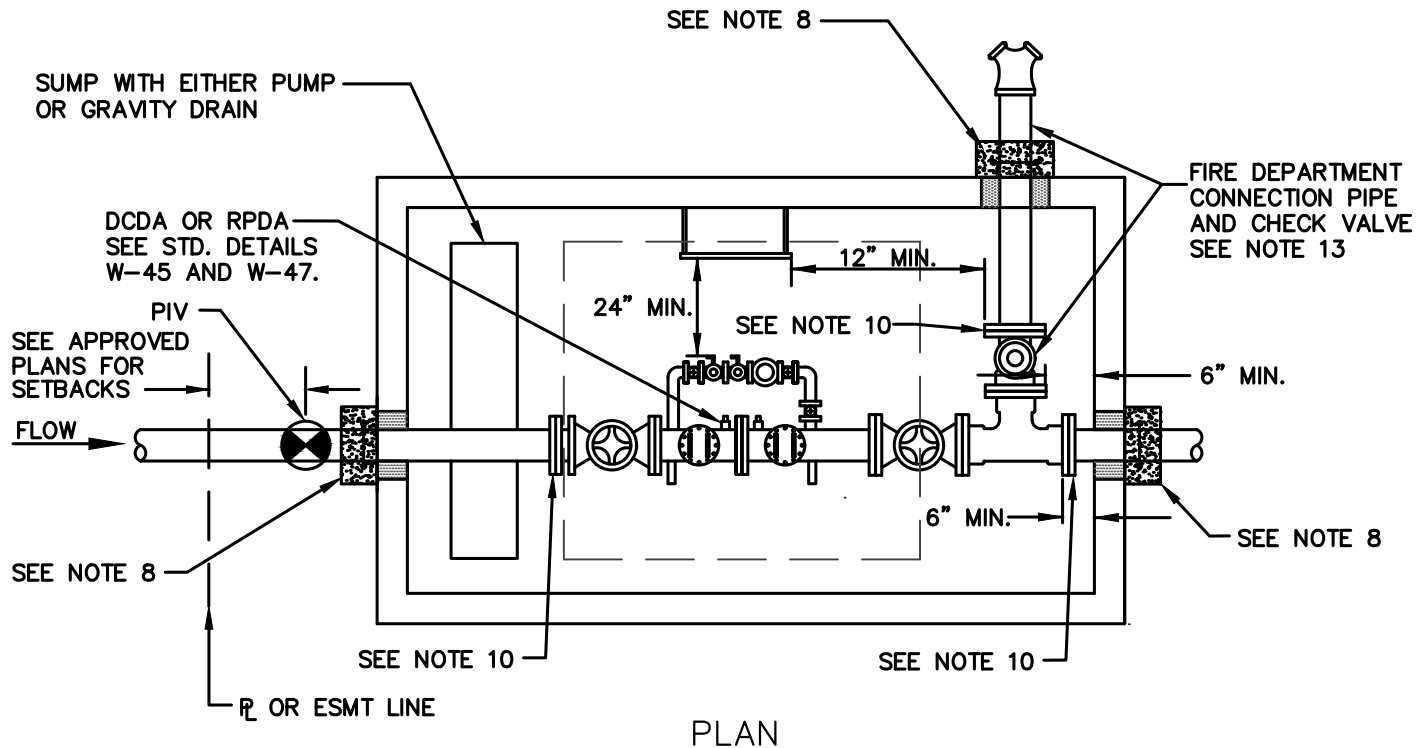
BY CITY

MAY 2018

DATE

DWG. NO.

W-48

**NOTES:**

1. FDC TO BE LOCATED DOWNSTREAM OF DCDA (DOUBLE CHECK DETECTOR ASSEMBLY) OR RPDA (REDUCED PRESSURE DETECTOR ASSEMBLY).
2. PROVIDE MINIMUM OF 6" CLEARANCE BETWEEN VALVES, FITTINGS AND THE VAULT WALL.
3. ALL DIMENSIONS SHOWN ARE MINIMUM ALLOWED.
4. INSTALL FDC LINE ON SIDE OF VAULT WITH GREATEST AVAILABLE SPACE, AS SHOWN.
5. WHEN FDC LINE IS ROUTED THROUGH THE VAULT, THE VAULT SIZE SHALL BE INCREASED TO MATCH THE SIZE REQUIRED FOR THE MINIMUM CLEARANCES.
6. ALL PIPE JOINTS SHALL BE RESTRAINED. CONCRETE BLOCKING IS REQUIRED AT CHANGES IN DIRECTION.
7. CORE DRILL (O.D. +2") VAULT IF KNOCK-OUTS ARE NOT PROVIDED.
8. SEAL PIPE PENETRATIONS WITH WATER-TIGHT GROUT. RESTRAIN INLET/OUTLET PIPES WITH MEGALUG MID-SPAN RESTRAINT AND THRUST BLOCK ADJACENT TO VAULT (DETAIL W-56).
9. WHEN PIV IS LOCATED IN VAULT, THE VAULT SIZE SHALL BE INCREASED TO MATCH THE SIZE REQUIRED TO ACCOMMODATE PIV INSTALLATION WITH 6" CLEARANCES ON VAULT INTERIOR. (LID TO BE CORE DRILLED - USE LINK SEAL/GROUT TO SEAL PENETRATION).
10. MEGAFLANGE ON PE CONNECTION TO FLANGED VALVES AND TEE.
11. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
12. POSITION DCVA WITHIN HATCH TO ALLOW FOR VERTICAL REMOVAL.
13. CHECK VALVE TO INCLUDE BALL DRIP.



CITY OF NORTH BEND
REQUIREMENTS FOR FDC AND
CHECK VALVE ROUTED THROUGH
BACKFLOW ASSEMBLY VAULT-1

APPROVED:

MARK RIGOS, P.E.

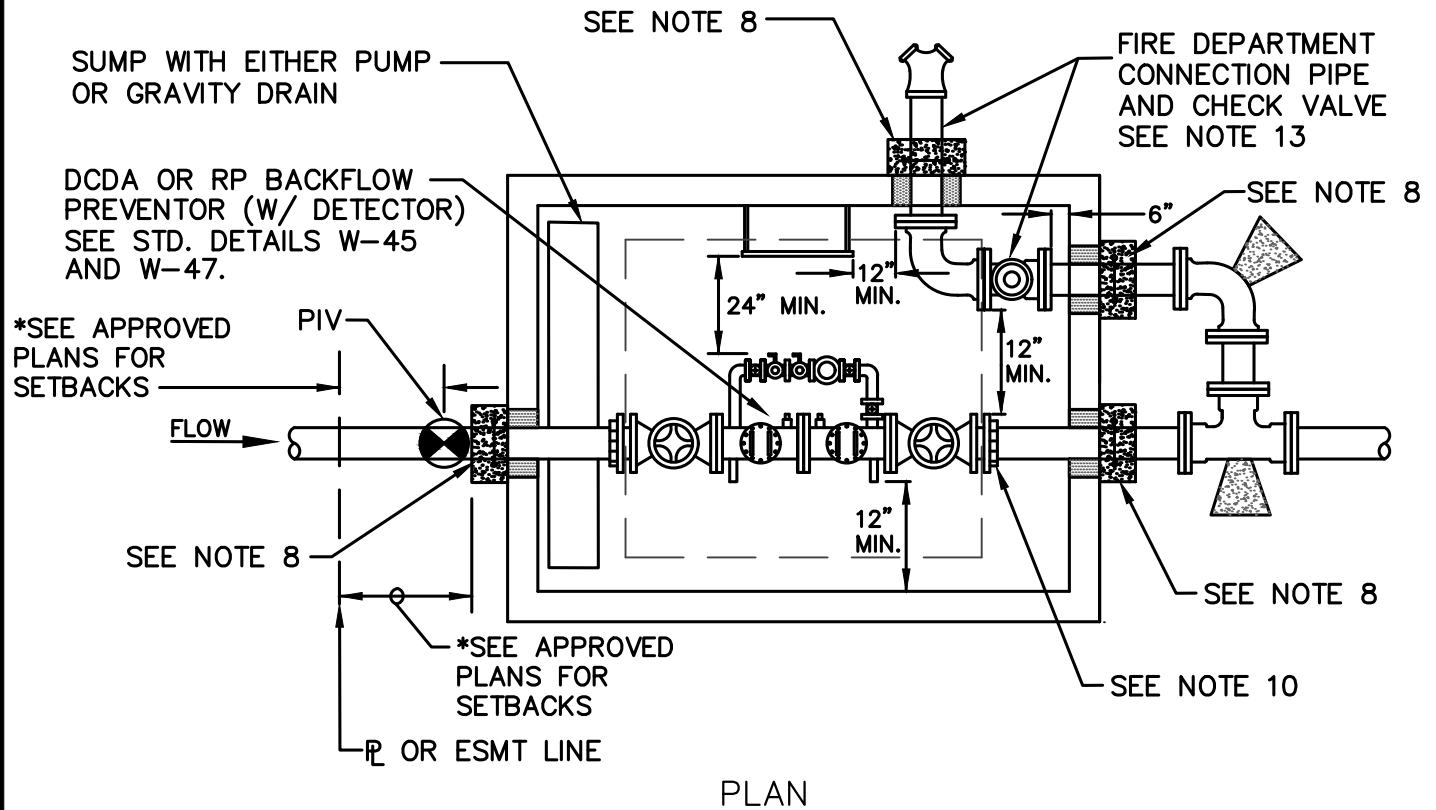
BY CITY

MAY 2018

DATE

DWG. NO.

W-49

**NOTES:**

1. FDC TO BE LOCATED DOWNSTREAM OF DCDA (DOUBLE CHECK DETECTOR ASSEMBLY) OR RPDA (REDUCED PRESSURE DETECTOR ASSEMBLY).
2. PROVIDE MINIMUM OF 6" CLEARANCE BETWEEN VALVES, FITTINGS AND THE VAULT WALL.
3. ALL DIMENSIONS SHOWN ARE MINIMUM ALLOWED.
4. INSTALL FDC LINE ON SIDE OF VAULT WITH GREATEST AVAILABLE SPACE, AS SHOWN.
5. WHEN FDC LINE IS ROUTED THROUGH THE VAULT, THE VAULT SIZE SHALL BE INCREASED TO MATCH THE SIZE REQUIRED FOR THE MINIMUM CLEARANCES.
6. ALL PIPE JOINTS SHALL BE RESTRAINED. CONCRETE BLOCKING IS REQUIRED AT CHANGES IN DIRECTION.
7. CORE DRILL (O.D. +2") VAULT IF KNOCK-OUTS ARE NOT PROVIDED.
8. SEAL PIPE PENETRATIONS WITH WATER-TIGHT GROUT. RESTRAIN INLET/OUTLET PIPES WITH MEGALUG MID-SPAN RESTRAINT AND THRUST BLOCK ADJACENT TO VAULT (DETAIL W-56).
9. WHEN PIV IS LOCATED IN VAULT, THE VAULT SIZE SHALL BE INCREASED TO MATCH THE SIZE REQUIRED TO ACCOMMODATE PIV INSTALLATION WITH 6" CLEARANCES ON VAULT INTERIOR. (LID TO BE CORE DRILLED - USE LINK SEAL/GROUT TO SEAL PENETRATION).
10. MEGAFLANGE ON PE CONNECTION TO FLANGED VALVES AND TEE.
11. TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.
12. POSITION DCVA WITHIN HATCH TO ALLOW FOR VERTICAL REMOVAL.
13. CHECK VALVE TO INCLUDE BALL DRIP.



CITY OF NORTH BEND
REQUIREMENTS FOR FDC AND
CHECK VALVE ROUTED THROUGH
BACKFLOW ASSEMBLY VAULT-2

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-50



CITY OF NORTH BEND

RESERVED

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-51



CITY OF NORTH BEND

RESERVED

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-52



CITY OF NORTH BEND

RESERVED

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-53



CITY OF NORTH BEND

RESERVED

APPROVED:

MARK RIGOS, P.E.

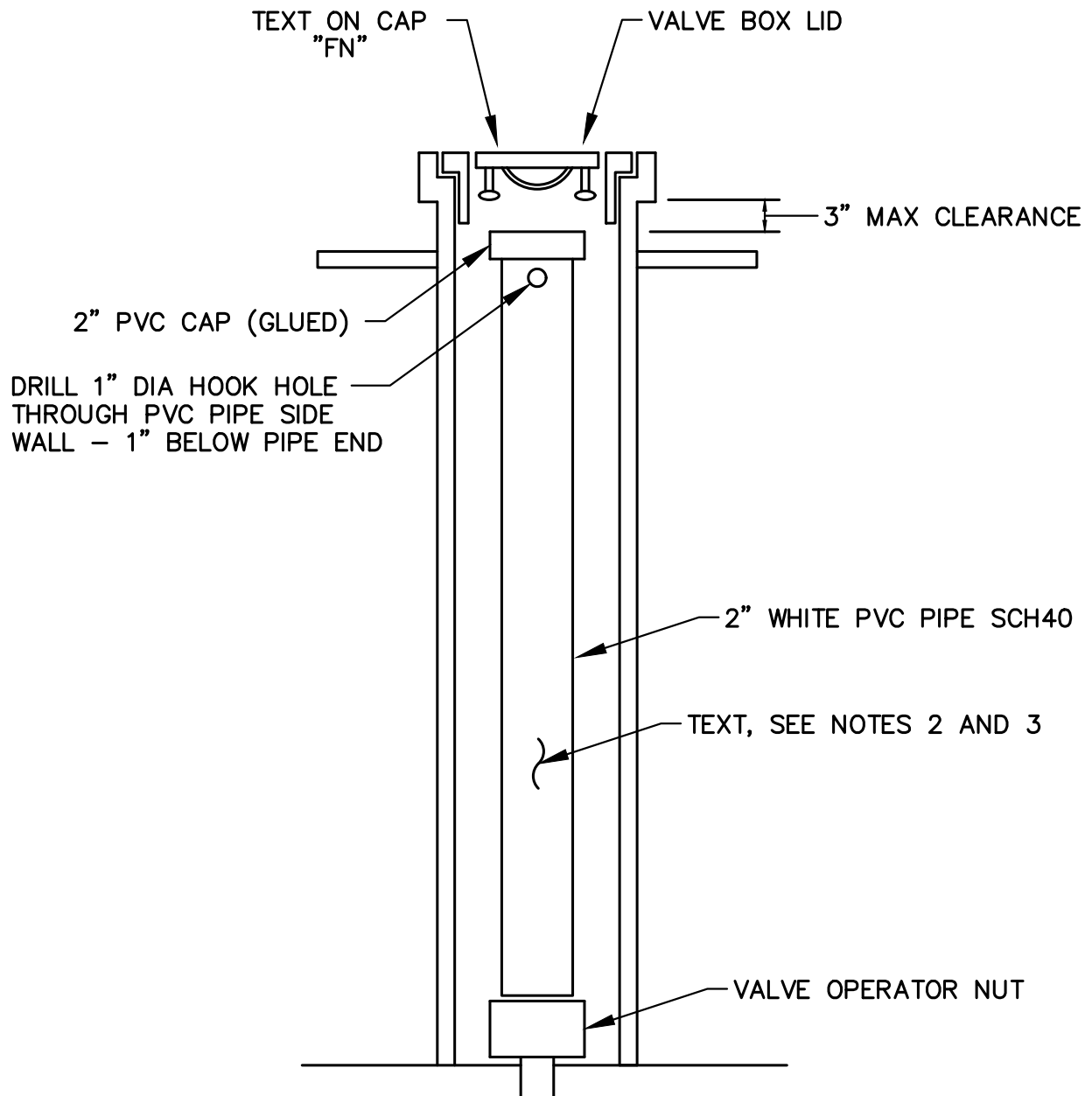
BY CITY

MAY 2018

DATE

DWG. NO.

W-54

**NOTES:**

1. CUT 2" PVC SCH40 TO LENGTH TO REST ON OPERATOR NUT AND EXTEND WITHIN 3" OF TOP OF VALVE BOX .
2. TEXT ON PVC PIPE SHALL READ "FIRE LINE - DO NOT CLOSE VALVE."
3. TEXT SHALL BE PRINTED CLEARLY AND NEATLY WITH A BLACK PERMANENT INK MARKING PEN.



CITY OF NORTH BEND

FIRELINE VALVE MARKER

APPROVED:

MARK RIGOS, P.E.

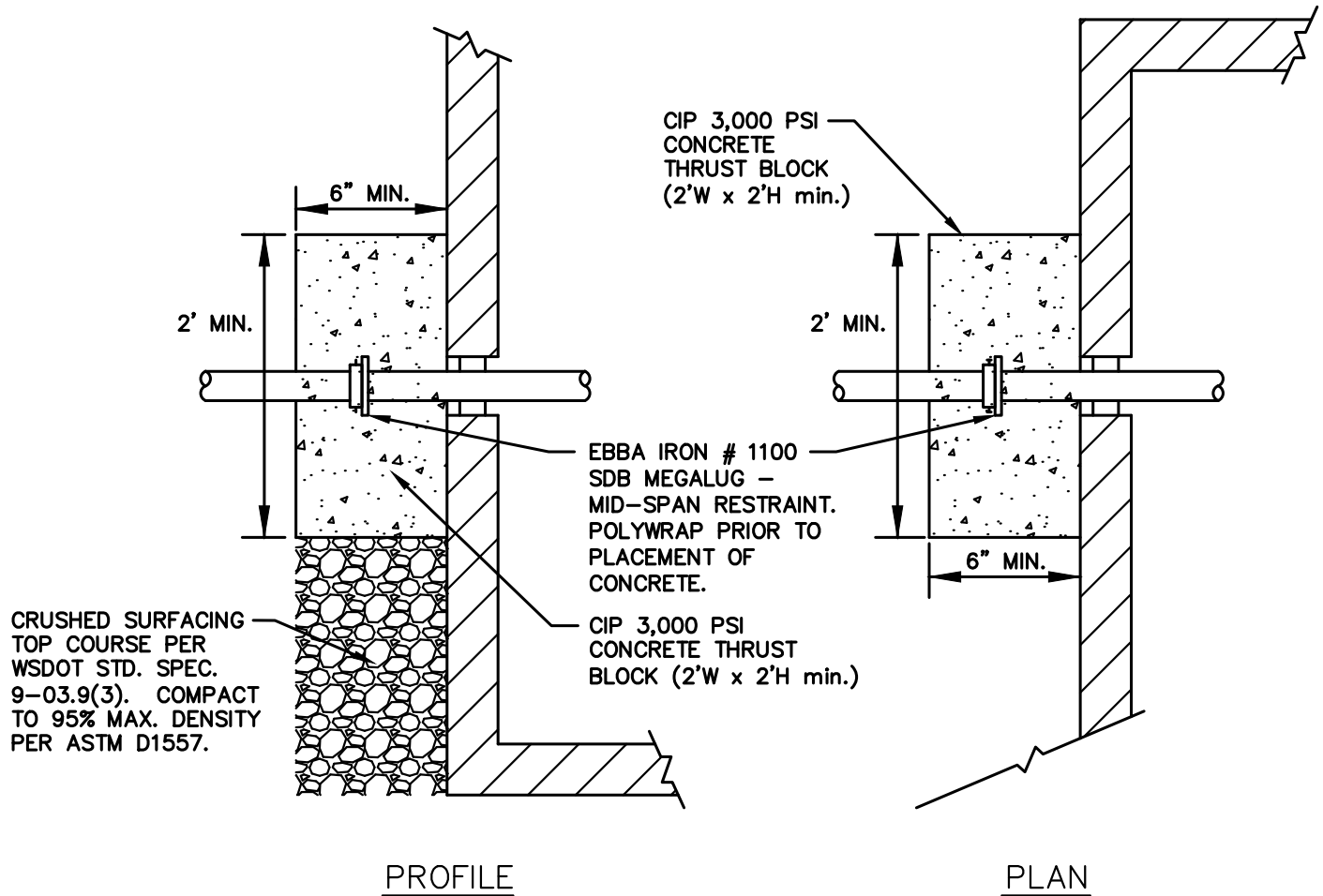
BY CITY

MAY 2018

DATE

DWG. NO.

W-55



THRUST BLOCK ADJACENT TO VAULT

NTS



CITY OF NORTH BEND

THRUST BLOCK ADJACENT TO VAULT

APPROVED:

MARK RIGOS, P.E.

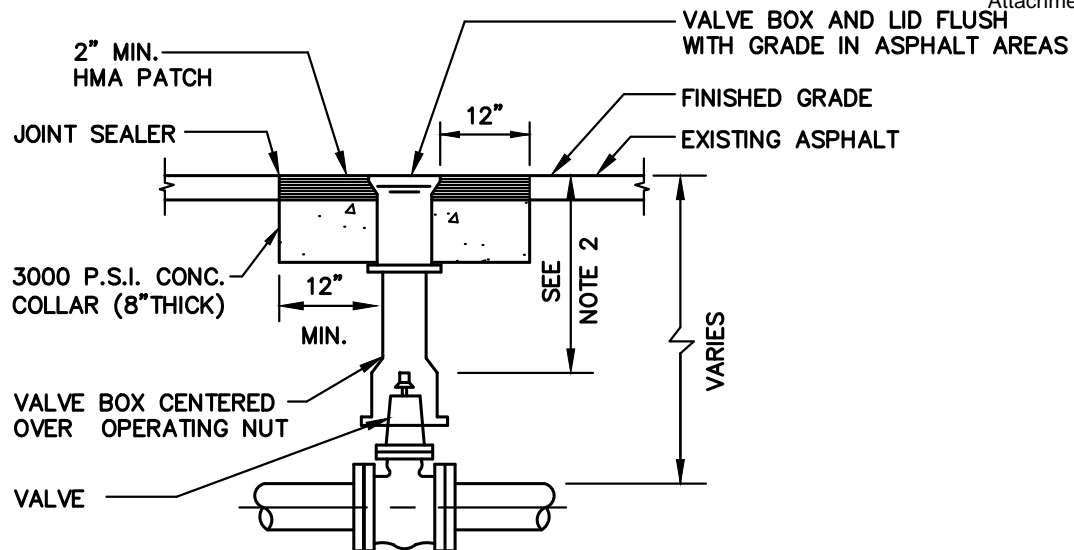
BY CITY

MAY 2018

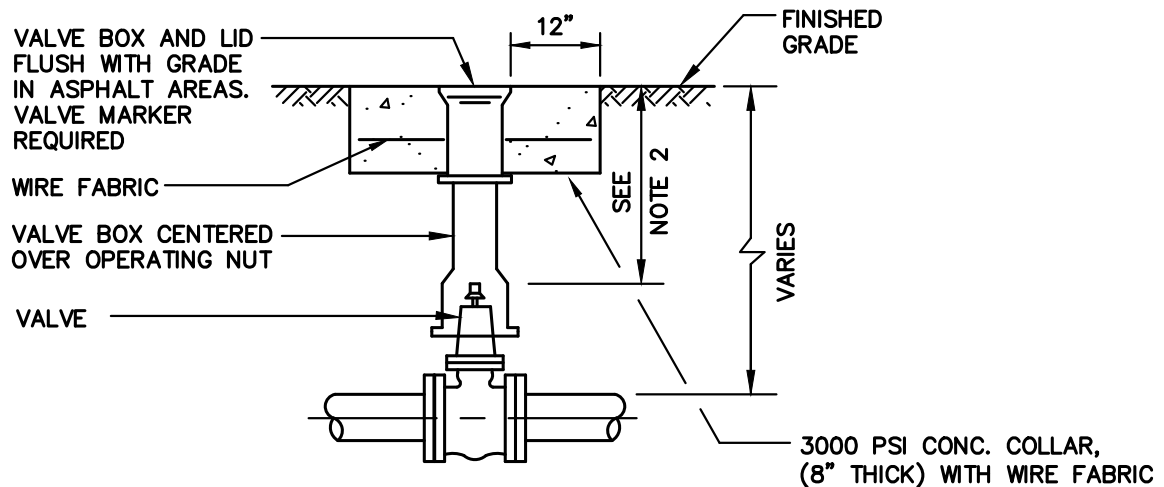
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DWG. NO.

W-56



VALVE BOX IN ASPHALT AREA



VALVE BOX IN UNIMPROVED AREA

NOTES:

1. EACH VALVE SHALL BE PROVIDED WITH AN ADJUSTABLE CAST IRON VALVE BOX OF 5 INCHES (5") INSIDE DIAMETER. VALVE BOXES SHALL HAVE A TOP SECTION WITH AN EIGHTEEN INCH (18") MIN. LENGTH. THE VALVE BOX SHALL BE OLYMPIC FOUNDRY #045 OR APPROVED EQUAL. VALVE BOX EARS SHALL BE PLACED IN LINE WITH PIPE IT SERVES.
2. 15" MINIMUM, 36" MAXIMUM FOR OPERATOR NUT. EXTENSION MAY BE REQUIRED.



CITY OF NORTH BEND

VALVE BOX
ADJUSTMENT DETAIL

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

W-57

SECTION 7 SANITARY SEWERS

Planning, Designing,
and Constructing



Sanitary Sewers for
the Collection,
Conveyance,

and Treatment of
Wastewater ...



SECTION 7 SANITARY SEWERS

7.01 General Requirements

A. General

These Engineering Standards set forth minimum standards for the planning, design, and construction of sanitary sewer collection facilities.

These standards do not include design of special facilities, such as Pump Stations or Sewage Lift Stations. These special facilities require unique design requirements and will be subject to individual review by the City.

Although these standards are intended to apply to physical development within the City, the standards will not apply for all situations. Compliance with these standards does not relieve the designer of the responsibility to apply conservative and sound professional judgement. These are minimum standards and are intended to assist, but not substitute for competent work by design professionals. The City may at its sole discretion due to special conditions and/or environmental constraints, require more stringent requirements than would normally be required under these standards.

B. References

Wherever references are made to the standards, specifications, or other published data of the various national, regional, or local organizations, such organizations may be referred to by their acronym or abbreviation only. As a guide to the user, the following acronyms or abbreviations which may appear, shall have the meanings indicated herein:

AASHTO	American Association of the State Highway and Transportation Officials.
ANSI	American National Standards Institute, Inc.
WSDOT	Washington State Department of Transportation
APWA	American Public Works Association
ASTM	American Society for Testing and Materials
AWWA	American Water Works Association
DOE	Washington State Department of Ecology
DOH	Washington State Department of Health
WAC	Washington Administrative Code

C. Governmental Agency Requirements

All construction on City, County or State roads or right-of-way shall be done in accordance with the agency's standards and requirements and in accordance with the franchise and/or permit requirements. The Contractor is responsible to determine these requirements prior to construction.

Where conflict exists between these Standards and permit requirements, the more stringent requirements as determined by the City shall take precedence.

7.02 Plan Submittal

A. General

A submittal checklist is included in the appendices of these standards. Following the standards in accordance with the submittal checklist will help ensure a timely review of the proposed project and keep review costs to a minimum.

B. Sanitary Sewer General Plan Notes

A listing of General Notes that must be incorporated on the first sanitary sewer plan sheet are contained in the Appendix. All the notes on the list may not pertain to every project. The Developer should include only those notes that are relevant to the project and may omit non-relevant notes. However, do not renumber the remaining General Notes. If additional notes are needed for specific aspects, they should be added after the General Notes.

C. As-built Documentation

For all wastewater projects, the Developer or City Department responsible for the project shall provide as-built plans at completion of the project, in accordance with Section 3.20.

7.03 Sewer Planning and Design Standards

A. Planning Criteria

Serve to Extreme of Property. Ensure adjacent properties can be provided sewer service (extend to extreme of property and design for the ultimate development of the tributary areas).

Sewer service shall be provided by a gravity system (unless approved by the City). Individual properties shall drain, by gravity side sewers, into a gravity collection system. In some cases, it may be necessary for an area to drain to a common low spot, which will require a sewage lift station to subsequently pump the sewage to a gravity sewer main. Said lift station shall be constructed per Section 7-07.

In those situations wherein a gravity line exists, but is not accessible by gravity from individual properties, individual pressure systems may be allowed to pump sewage into the gravity sewer line. The individual pressure systems shall meet the requirements herein.

B. Demand Projections

Demand projections will be taken from the current version of the City of North Bend Sewer System Comprehensive Plan.

C. Infiltration/Inflow (I/I) Allowances

For new systems an I/I allowance of 1100 gallons per acre per day (gpac) shall be used. On existing sewer systems, I/I allowance shall be determined through analysis.

D. System Parameters

- (1) New sewer lines shall be designed so that, under ultimate development, peak flow, including I/I, shall not exceed 50 percent capacity of the line. Existing lines can have peak flows to 75 percent capacity of the line. Engineering design submittals must conform to the City's required pipe sizes.
- (2) No storm drainage connections shall be made to the sanitary sewer system, unless approved by the City and only under special circumstances, i.e., covered parking or wash down areas around garbage collection dumpsters with an area less than 200 square feet.

Uncovered garbage dumpster areas less than 200 square feet may discharge to the sanitary sewer. Uncovered garbage dumpster areas greater than 200 square feet must discharge to the storm system after passing through a grease interceptor, designed per these Standards.

- (3) All new utilities shall comply with NBMC 14.12.030 C.

E. General Design Standards

- (1) All lengths and dimensions shall be horizontal distances, no slope distances on plans.
- (2) Indicate type of pavement restoration required by right-of-way authority having jurisdiction (if working in existing streets).
- (3) Dimension existing and new main locations from right-of-way line and/or property line, or label stations and offsets.
- (4) Check with Public Works Department to determine how surrounding development will affect design (e.g., serve to extreme of property if adjacent property has potential for future development).
- (5) On plans show existing manholes or give reference distances to existing manholes near project including manhole number and invert/rim elevations.
- (6) Existing sewer lines to be abandoned shall be filled completely with sand, concrete, or controlled density fill; or removed.
- (7) Manholes connected to lines being abandoned, shall be rechanneled with 3,000 psi cement concrete.
- (8) Side sewers and sewer mains shall not be used for the grounding of electrical systems or for the maintenance, integrity or continuity of any grounding attachment or connection.
- (9) Placement of surface appurtenances (manhole lids, water valve lids, etc.) in tire track of traffic lanes shall be avoided whenever possible.
- (10) Soil nails shall not be installed at or above pipes and shall include a minimum 5-foot clearance if installed below pipes.

F. Main Lines

- (1) Minimum pipe size shall be 8 inches.
- (2) Pipe Slope
 - (a) Minimum slope shall comply with Ecology standards, except 8-inch-diameter pipe shall have a minimum slope of 0.005 ft/ft.
 - (b) Maximum main line slope shall not induce velocities greater than 10 feet per second under daily peak flows.
 - (c) Where pipe are proposed on hills or steep slopes, the Director shall determine if the pipe location and configuration will be allowed. If allowed, the Developer's engineer shall propose design details for permanently securing and anchoring the pipe.
- (3) Plan View
 - (a) List pipe length, size, and material alongside of pipe, e.g., 150 LF 8-INCH PVC. Pipe material can be listed in a general note in lieu of listing along pipe.
 - (b) Pipe length is to be based on horizontal distance between center of manholes.
 - (c) Indicate direction of flow with arrows on end of pipe entering manhole.
- (4) Profile View
 - (a) List pipe length, size, material, and slope (%), e.g., 150 LF 8-INCH PVC S=1.25%. Pipe material can be listed in a general note in lieu of listing on profile.
 - (b) Slope is based on I.E. OUT of upstream manhole, I.E. INTO downstream manhole and horizontal distance between center of manholes.

G. Manholes

- (1) Maximum distance between manholes shall be 400 feet.
- (2) All manhole covers shall be set flush with ground surface, except where otherwise designated by the City. Manholes shall have bolt-locking covers.
- (3) Concrete perimeter seals shall be provided around all manhole adjustment sections per Standard Detail.
- (4) Existing and Terminal Manholes:

When connecting to an existing manhole, all requirements of these Engineering Standards must be met. The design shall call out all necessary revisions to the existing manhole, or if the existing manhole cannot be renovated to meet the standards, the manhole shall be removed and replaced with a conforming structure.

- (a) When there is a potential for future main line extension from terminal manhole, position side sewer connections to manhole to avoid conflict with future main line connection to manhole.
 - (b) Terminal manholes (without side sewer connection) shall not be channeled. Slope manhole base to provide positive drainage toward pipe, use 3,000 psi cement concrete.
- (5) Where side sewer connects to manhole, invert of side sewer shall be equal to or above main sewer crown, but not to exceed 18 inches above invert of main sewer.
- (6) Drop in invert elevation across manhole shall be from 0.1 feet to 0.2 feet. In areas with sewer main slopes less than 0.50 percent, lesser drops are allowed, to be determined by the City. In areas with sewer main slopes greater than 10 percent, the drop should be designed to produce a slope across the manhole that is an average of the inlet and outlet pipe slopes. Maximum allowable drop in invert elevation across the manhole shall be 1.0 feet.
- (7) Manhole Sizing
 - 48" manhole: Two connecting pipes, up to 12" diam.
Three connecting pipes, up to 10" diam.
 - 54" manhole: Two connecting pipes, 15" diam. to 21" diam.
Three connecting pipes, 10" diam. to 15" diam.
Four connecting pipes, up to 12" diam.
 - 72" manhole: Two connecting pipes, 21" diam. to 24" diam.
Three or four connecting pipes, 15" diam.

For other pipe configurations and hydraulic concerns, the size of the manhole will be determined on a case by case basis.

The minimum angle between the incoming and the outgoing pipe shall be 90°; pipe shall be radial with the center of manhole.

The above configurations shall provide adequate shelves and room for maintenance and performing video inspections.
- (8) Channels shall be centered in manhole.
- (9) Ladder rungs shall be placed on side of manhole with largest shelf.
- (10) Any manhole less than 5' deep (rim to invert) shall have a concentric cone. All other manholes shall be provided with eccentric cone.

- (11) Minimum manhole depths (invert to top of rim):

MANHOLE SIZE	PIPE SIZE	MIN MH DEPTH	COMMENTS
48"	6"	3.0'	See Standard Detail S-6
	8"	3.2'	
	10"-12"	3.5'	
54"	8"	3.7'	See Standard Detail S-6
	10"-12"	4.0'	
	15"-18"	4.5'	
72"	15"	8.0'	See Standard Detail S-3
	18"-24"	8.5'	
	27"	9.0'	

72-inch manholes over 11.5 feet in depth shall include 48-inch reducing section per Standard Detail S-2.

- (12) Glass fiber supported plastic or PVC-hard lined manhole channels will be allowed at contractor's option.
- (13) Drop Manholes
- (a) Minimum height of drop is 2.5 feet.
 - (b) Maximum height of drop is 20 feet.
 - (c) Maximum drop pipe diameter is 8 inch.
 - (d) Minimum manhole diameter is 54 inch for new drop manholes; two connections are allowed for 54-inch diameter or greater.
 - (e) Outside drop structures are required on new manholes, and connections to existing manholes.
 - (f) Inside drops are allowed on a case by case basis as approved by the City.
- (14) The burial of manholes or cleanouts is prohibited.
- (15) Manholes in easements shall be constructed to provide a stable, level grade for a minimum radius of 2.5 feet around the center of the access opening, per standard detail S-8.
- (16) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration or inflow of flood waters into the systems and discharges from the systems into flood waters. Manholes located in the curb and gutter line, flood plains, or flood-prone areas shall have a locking, sealed, gasketed ring and cover.

H. Pipe Class Protection – Cover

- (1) PolyVinyl Chloride (PVC) pipe class designation:
- (a) All sewer pipe (including side sewer stubs) shall be PVC conforming to ASTM-D3034 SDR 35 (4"-15") or ASTM-F679 (18"-27"), unless otherwise determined by the City.
 - (b) Depth of cover over PVC pipe shall be 3 feet minimum and 20 feet maximum. Pipe depths outside this range will require use of pressure class PVC conforming

to AWWA C900 (dimension ratio 18).

- (2) PVC pipe shall be encased in a steel or ductile iron casing when crossing under improvements where the ability to remove and replace pipe without disturbance to the improvement is needed. Casings are required when:
- (a) Crossing under rockeries over 4' high.
 - (b) Crossing under retaining wall footings over 4-foot wide.
 - (c) Crossing under reinforced earth retaining walls (both wall and reinforcing material).
 - (d) Casings shall extend a minimum of 5 feet past each edge of the improvement, or a distance equal to the depth of pipe, whichever is greater. The carrier pipe shall be supported by casing spacers where casing length exceeds 10 feet.

Minimum clearance between bottom of rockery and top of pipe or casing shall be 2 feet. The trench shall be backfilled with crushed rock.

- (3) Building setback requirements:
- (a) 5 foot minimum from covered parking.
 - (b) 10 foot minimum from buildings and retaining walls, or equal to depth of pipe, whichever is greater.
 - (c) 20 foot minimum easement shall be provided between buildings, on multi-family and commercial sites.
 - (d) When passing between any two buildings (residential or commercial, etc.) which are 25 feet apart or less, the easement width shall extend the full width between the buildings, and the depth of the sewer line shall not exceed 10 feet.

I. Clearances – Other Utilities

- (1) All clearances listed below are from edge-to-edge of each pipe.
- (2) Water services and sewer stubs shall have at least 5-foot horizontal clearance.
- (3) Check for crossing or parallel utilities. Maintain minimum vertical and horizontal clearances. Avoid crossing at highly acute angles (the smallest angle measure between utilities should be between 45 and 90 degrees).
- (4) Horizontal clearances from sanitary sewer:
- | | |
|--|---------|
| · Cable TV, Gas, Storm | 5 feet |
| · Power, Telephone, Fiber Optic, Water | 10 feet |
- (5) Vertical clearances from sanitary sewer:
- | | |
|---------------------------------|--------|
| · Cable TV, Gas, Storm | 1 foot |
| · Power, Telephone, Fiber Optic | 1 foot |
| · Water | 2 feet |

- (6) Where sewer crosses above or below water main, one full length of sewer pipe shall be used with the pipes centered for maximum joint separation. Washington Department of Ecology criteria will also apply.
- (7) Send letter and preliminary plan to existing utilities to inform them of new construction. Request as-built information and incorporate into plans. At minimum the following utilities should be contacted:
 - Cable television
 - Natural gas
 - Power
 - Storm drainage
 - Telephone, Fiber Optic
 - Water

J. Connections to Existing System

- (1) New sewer mains (8 inch and larger) shall connect to existing sewer main at existing manholes, or with new manhole on existing sewer per Standard Detail.
- (2) When connect to existing manhole, core-drill opening for pipe and rechannel manhole base.
- (3) Where new main is larger in diameter than existing downstream main, check that capacity of existing main is not exceeded by flow from new main.
- (4) When connecting to existing manhole, check that requirements of Section 7-03 D(7) are satisfied.
- (5) If connecting to existing manhole that has access less than 24 inches in diameter and/or concentric cone (manholes over 5-feet deep), manhole shall be upgraded to include new 24-inch ring and cover and/or eccentric cone.
- (6) If connection to existing manhole places a channel directly under access opening, move ladder and rotate cone section to place access over concrete shelf.
- (7) Connections to end of existing pipe:
 - (a) If end of pipe is known to have a bell, and new pipe is same material as existing, plans can specify connection by inserting spigot of new pipe into existing bell end, with “donut” gasket.
 - (b) If existing line is plain end, or must be cut, plans shall specify use of a coupling to connect new and existing lines.
- (8) Approved couplings for use on sewer mains include:
 - (a) Ductile iron mechanical couplings (equal to ROMAC) on ductile iron, concrete, vitrified clay, or pipes with differing materials or diameters.

- (b) On PVC or PE mains, PVC or PE couplings with compatible dimension ratio and gaskets to connect new and existing pipes shall be used.
- (c) Where a section of existing PVC pipe is replaced by “dropping-in” a new section of PVC pipe, the connections to existing pipe shall be made with PVC closure couplings (slip couplings).

K. Fats, Oils, and Grease Separation

Pretreatment requirements for wastewater are included in NBMC 13.32.

(1) Oil/Water Separator

Whenever an industrial or commercial business generates mineral/petroleum/non-biodegradable cutting oils exceeding 100 milligrams per liter to be discharged to the sanitary sewer, pre-treatment is required. An oil/water separation device shall be installed by the property owner as specified on various Standard Details. Selection and sizing of an oil/water separator shall be subject to approval of the City. Water discharged from any oil/water separator to the sanitary sewer system shall not contain in excess of 100 milligrams per liter of petroleum oil, non-biodegradable cutting oil or mineral products, and shall be in compliance with the City of North Bend regulations for discharge to the sanitary sewer.

- (a) Sizing of a separator facility shall be based upon maximum available flow to the separator and provision of a **45 minute retention time** in the separator at that flow, with a minimum capacity of at least 100 gallons.
- (b) The oil/water separator shall be covered with removable sections. Access and inspection covers, weighing not more than 30 lbs. and with suitable hand holds, are to be provided directly above inspection “tee” and oil/grit collection compartments.
- (c) Only waste water from floor drains and covered parking areas shall drain to the separator. The location and design shall minimize or eliminate the possibility of storm water reaching the separator -- areas over 200 square feet open to rainfall shall not drain to the separator. See Standard Details.
- (d) Allowable materials for construction are as follows:
 - Tank - concrete
 - Baffles - concrete, steel plate
- (e) The separator shall be located within 20 feet of drive for access by maintenance vehicle.
- (f) A sampling tee shall be located on the outlet as shown on the Standard Details. Access to the separator shall be maintained free for inspection and compliance determination sampling at all times.
- (g) The effluent discharged from any oil/water separator to the sanitary sewer shall not exceed 100 parts per million total oil.

- (h) When pretreatment is no longer required, the inlet and outlet pipes shall be permanently plugged, the separation chambers pumped out, and the vault removed, or filled with compacted crushed rock or controlled density fill.

(2) Grease Interceptor

Whenever a commercial and/or retail food preparation operation, regardless of size, generates animal/vegetable fats, oils or grease (F.O.G.) waste, which causes a visible sheen or accumulations in the effluent, to be discharged to the sanitary sewer, pretreatment is required. A grease interception device as specified by various Standard Details, and/or other biological, chemical, or other pretreatment approved by the City, shall be installed by the owner. Effluent discharged from any grease interceptor shall not contain a visible sheen or accumulations of F.O.G., and shall be in compliance with the City of North Bend regulations for discharge to the sanitary sewer.

- (a) Design of the grease interceptor shall conform to the Standard Details, and shall be subject to approval by the City. Size shall be determined by the City. Minimum capacity shall be 600 gallons except as noted by the City.
- (b) Fixtures in the kitchen area which discharge waste-water containing grease are to be connected to the grease interceptor. Such fixtures include dishwashers, pot sinks, range woks, janitor's sink, floor sinks, rotoclones. Toilets, urinals, and wash basins shall not flow through the interceptor.
- (c) The interceptor shall be located outside the building within twenty feet of drive for access by maintenance vehicles.
- (d) The interceptor shall be filled with clean water prior to startup of system.
- (e) Allowable materials for construction are as follows:
 - Tank - concrete
 - Baffles - concrete, plastic
- (f) Access to the interceptor shall be maintained free for inspection and compliance determination sampling at all times.
- (g) When pretreatment is no longer required, the inlet and outlet pipes shall be permanently plugged, the separation chambers pumped out, and the vault removed, or filled with compacted crushed rock or controlled density fill.

L. Easements

- (1) Show easements on all plans and identify width.
- (2) Show easements on all private property. If easement is defined as a constant width on each side of sewer main, then show a segment of the easement and label as "Typical" (typ).

- (3) The required utility easement width shall be: (1) the minimum value set forth below; or (2) determined by extending a line from the bottom of the excavation at the outside diameter for pipes, at a 1 H : IV slope until it intercepts the finished grade, whichever is greater.
- (4) The sewer pipe shall be located in the center of the easement.
- (5) For pipes up to 18 inches in diameter, the minimum easement width shall be 15 feet.
- (6) For pipes greater than 18 inches, the minimum easement width shall be 20 feet.
- (7) A 20-foot minimum easement shall be provided between buildings, on multi-family and commercial sites.
- (8) When passing between any two buildings (residential or commercial, etc.) which are 25 feet apart or less, the easement width shall extend the full width between the buildings and the depth of the sewer pipe shall not exceed 10 feet.
- (9) Sewer pipe shall be located 10 feet from edge of easement facing interior of lot, to ensure setback from building.
- (10) Also see Section 7.03 H(3), “Building Setback Requirements”.
- (11) Easement Documentation Requirements:
 - (a) All easements shall be shown on the project plans and identified as “private” or “public”, together with the width dimension and utility use, e.g., 20-Foot Public Sewer Utility Easement.
 - (b) All documents for public easements shall conform to these Standards, will be provided on the City’s easement template and shall comply with King County Recorder’s Office formatting requirements. Include the King County tax parcel number(s), site address, owner names and site legal description.
 - (c) Easements shall be dedicated to and approved by the City prior to acceptance of a public utility system. The Grantee shall be the “City of North Bend,” a Washington municipal corporation, its heirs, successors and assigns.” The City may require indemnification agreements to hold the City harmless where maintenance access across private property is deemed necessary.
 - (d) The description contained within the easement document shall be prepared and stamped by a land surveyor licensed in the State of Washington. The description shall be identified as an Exhibit, together with the title of the utility use, e.g., Permanent Public Sewer Utility Easement. The description shall be clearly written and referenced to the underlying property. The description shall be accompanied by an additional graphic exhibit which depicts a scaled drawing of the easement location relative to the subject parcel.
 - (e) Off-site easements shall be delivered to the City prior to issuing a Notification to Proceed with construction. Submittal of on-site easements may be delayed until completion of construction improvements.

- (f) Bills of Sale for all utility facilities appurtenant to public easements or tracts shall be given to the City.

M. Side Sewers

- (1) Side sewer stub shall extend from main line to 10 feet past edge of property line. 6-inch pipe shall be used inside the public right-of-way (unless expected flows require larger size line).
- (2) 4-inch minimum pipe may be used inside private property, for residential side sewers from end of 6-inch stub to building, for a single connection contained within the lot.

6-inch minimum pipe shall be used for private joint-use sewers, and when crossing a property outside the lot to be served.

Commercial side sewers shall be a minimum 6-inch pipe.

For multi-family developments, side sewers for each separate building must be at least 6 inches in diameter. For those buildings serving over ten units or for side sewers serving more than one building, side sewers shall be a minimum of 8 inches in diameter and must connect to a manhole.

- (3) Side sewer shall have minimum 5 feet of cover at property line. Greater depths may be required where elevation of lowest floor to be served is lower than surface elevation at property line. Ensure that stub can serve all property by gravity flow. When crossing beneath a ditch, side sewers shall have 30 inches of cover from the bottom of the ditch.
- (4) Joint-use side sewer stubs are not allowed where slope of side sewer is less than 2 percent. Provide a single stub to “low” end of each lot, and show invert elevation of each stub on the plan. 2009 Uniform Plumbing Code may also require a backwater valve.
- (5) Side sewers shall connect to main sewers with a wye, unless otherwise approved by the City. Side sewer stubs shall run perpendicular to the sewer main, in the right-of-way. On plan, indicate station of side sewer wye from nearest downstream manhole. Also indicate length of side sewer stub from main to plug at end of line. Call out invert at plugged-end of stub.
- (6) Minimum side sewer slope shall be 2 percent. Maximum slope shall be 100 percent. A minimum slope of 1 percent may be approved by the Director, for 6 inch or larger side sewers, upon showing no ability to install at 2 percent.
- (7) All side sewer clean-outs on commercial and multi-family projects shall include at-grade access with covers per the Standard Detail.
- (8) Maximum distance between side sewer clean-outs shall be 100 feet.
- (9) See Section 7-06 I, Joint-Use Side Sewer, for additional requirements for single-family residential joint-use side sewers.
- (10) For a side sewer connection to a building where a coupling is within the right-of-way and

when the edge of the building foundation is at or within 3 feet of the edge of right-of-way, the coupling shall be a ductile iron mechanical coupling, equal to Romac 501 style.

- (11) Cleanouts are required at buildings, at property lines, and 100-foot intervals and at horizontal changes in direction totaling 135 degrees.

N. Individual Pressure Systems

- (1) Where allowed, individual pressure systems may be installed to pump sewage from a property up into a public gravity sewer main. The pump installation must meet all applicable building, plumbing, and electrical codes and shall be approved prior to installation. The property owner shall be solely responsible for the installation, operation and maintenance of the pressure system, including the electrical service, pump, tank, controls, side sewer, and receiving device.
- (2) Connections to a gravity sewer main shall require a 6-inch PVC gravity side sewer. The transition between the HDPE pressure side sewer and the gravity side sewer shall require the installation of a Pressure Line Connection to Gravity Sewer connection as shown in the details, including installation of the 6-inch cleanout assembly at the property line.
- (3) A Grinder Pump Cleanout shall be installed within 16 inches of the grinder pump tank, in accordance with the details and installation notes.

7.04 Sewer Materials

A. General

All materials shall be new and undamaged. The same manufacturer of each item shall be used throughout the work. Where reference is made to other specifications, it shall be the latest revision at the time of construction, except as noted on the plans or herein. All materials not specifically referenced shall comply with applicable sections of ASTM, AWWA or the APWA/WSDOT Standard Specifications.

Approved manufacturers and model numbers of various materials are listed in Approved Materials List, Appendix 7-2. When specific manufacturers or models are listed, no substitutions will be allowed without prior approval by the City.

B. Gravity Sewer Pipe and Fittings

- (1) PVC Pipe:

All PVC pipe and fittings shall be integral wall bell and spigot, rubber gasket joint, solid wall PolyVinyl chloride (PVC) pipe, meeting the standard specifications of Section 9-05.12.(1).

- (2) AWWA C900/C905 PVC Pipe:

Where required, AWWA C900/C905 PVC pipe shall meet the standard specifications of Section 9-30.1(5). All fittings shall be PVC, compatible with pipe class called for in the plan, unless otherwise approved. PVC fittings shall conform to AWWA C900 and C905 with respect to joint dimensions and physical properties.

(3) Ductile Iron Pipe:

All ductile iron pipe material shall be new and undamaged. Unless otherwise approved by the Engineer, the same manufacturer of each item shall be used throughout the work. Materials shall meet the requirements of the following sections of the standard specifications as modified herein:

- Pipe 9-30.1
- Ductile Iron Pipe 9-30.1(1)
- Restrained Joints 9-30.2(6)

All ductile iron pipe shall be Class 52 with Protecto 401 Lining. Ductile iron fittings shall conform to the standard specifications of Section 9-30.2(1). Contractor shall provide Manufacturer's Certificate of Compliance in accordance with Section 1-06.3 Manufacturer's Certificate of Compliance of the Standard Specifications for all pipe to be used.

Flanged joints shall conform to ANSI B.16.1, Class 125 drilling pattern, rated for 250 psi working pressure.

C. Pressure Sewer Pipe

PVC pressure pipe shall conform to AWWA C900/C905 DR 18 unless otherwise called for in the plan. Requirements for AWWA C900/C905 pressure pipe shall be as shown herein under Section 7.03 B(2), Gravity Sewer Pipe and Fittings, AWWA C900/C905 PVC Pipe.

Ductile iron pipe shall be Class 52 with polyethylene or epoxy lining unless otherwise called for in the plan. Ductile iron fittings shall conform to the standard specifications of Section 9-30.2(1).

HDPE pipe shall meet the standard specifications of Section 9-30.1(6).

D. HDPE Pipe

Butt-fused welded HDPE pipe shall be considered by the City on a case-by-case basis under the following conditions:

- HDPE pipe is only used for transmission lines with no laterals.
- HDPE pipe is used for buried piping only.
- The use of HDPE pipe is reserved for situations in which conventional PVC sewer pipe may not be appropriate: non-linear alignments, low-head siphons, steep slopes in sensitive/protected areas, etc.
- HDPE pipe meets the standard specifications of Section 9-30.1(6).

E. Fittings

All fittings shall be of the same material as the pipe unless otherwise specified. For side sewers, a wye shall be installed in pipelines 6 inches or larger with 6 inch inside diameter for side outlet.

For side sewer connections to existing sewer lines, a flexible metallic side sewer saddle shall be used for hole-cuts. If any other type of fitting is required, the type and make shall be specified on the plans.

F. Caps and Plugs

All open ends shall be sealed with a plug or cap and gasket material approved by the City. The plug or cap shall be able to withstand all test pressures without leakage.

G. Bolts in Piping

Bolts shall be malleable iron, Cor-ten, or stainless steel.

Bolts and nuts for flanged pipe and fittings shall conform in size and length with ANSI/AWWA C115/A21.15. T-bolts shall be malleable iron Cor-ten in accordance with ANSI/AWWA C111/A21.11. Stainless steel bolts shall meet the requirements of ASTM A-307, Grade A. Shackle rods, nuts and washers shall be All Thread stainless steel 316SS.

Stainless steel nuts, bolts and washers shall be type 304.

H. Flange Gaskets

Gasket Material shall be neoprene, Buna N. chlorinated butyl, or cloth inserted rubber.

I. Manholes

Manholes shall be precast concrete sections, meeting the standard specifications of Section 9-05.50(2), with a confined O-ring rubber gasket joints per ASTM C-478 and ASTM C-443 with either a precast base or a cast-in-place base made from a 3,000 psi structural concrete.

Polypropylene safety steps shall be required in all manholes. Polypropylene safety steps shall be constructed from polypropylene, conforming to ASTM D-4101, injection molded around a 1/2-inch-diameter grade 60 steel reinforcing bar conforming to ASTM A-615. The polypropylene step shall be either cast-in-place or driven into preformed holes in the manhole wall. The step shall be capable of resisting pullout forces exceeding 1,500 pounds.

Steps and ladders dimensions shall conform to the Standard Detail S-13. Steps shall project uniformly from the inside wall of the manhole. Steps shall be installed to form a continuous vertical ladder with rungs equally spaced at 12-inch centers. Steps in precast base may be cast in place safety steps, or prefabricated galvanized hanging ladder per Standard Detail S-13 fabricated with #8 (1 inch) reinforcing bar and #7 smooth steel bar conforming with ASTM A-615, Grade 40, galvanizing conforming with ASTM A-123.

Concrete adjustment rings shall conform to the ASTM C-32, Grade MA.

Mortar used shall be composed of one part cement to two parts of plaster sand.

Outside drop structures shall be constructed with AWWA C-900 pipe and fittings, DR 18.

J. Manhole Lining

In instances where high velocity flows entering the manhole can potentially erode the interior wall(s), the City may require an epoxy based structural lining system be installed in the new or existing manhole. The epoxy based liner shall be installed per the manufacturer's specifications. Approved epoxy lining systems shall be Raven 404, Neopoxy, or an approved equal.

K. Manhole Ring and Cover

Ductile iron and cast iron rings and covers shall conform to the Standard Details and Section 9-05.15 of the standard specifications, as modified herein.

Casting shall conform to the requirements of ASTM A-536, Grade 80-55-06 for ductile iron and ASTM A-48, Class 30 for cast iron, and shall be free of porosity, shrinkage cavities, cold shuts, or cracks, or any surface defects which would impair serviceability. Repair of defects by welding or by the use of "smooth-on" or similar material will not be permitted.

Manhole rings and covers shall be machine-finished or ground-on seating surfaces so as to assure non-rocking fit in any position and interchangeability. At the request of the City, there shall be made available at the foundry standard rings and standard covers for use by inspectors in testing fit and seating.

New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters. For all manholes located in the curb and gutter line, flood plains, or flood areas in easements, the installation of a locking gasketed ring and cover will be required. Manhole covers shall have a blind pick hole for removal.

Locking bolts shall be 5/8 inch - 11 NC stainless steel type 304 socket (allen) head bolts, 2-inches long.

L. Concrete Bedding and Blocking

Concrete blocking shall meet the standard specifications of Section 7-09.3(21).

M. Oil/Water Separator

Oil/Water separator vaults shall be of precast concrete construction. Cement concrete shall have a minimum 28-day compressive strength of 4,500 pounds per square inch.

Deformed bars for steel reinforcement shall be in accordance with ASTM A-615, grade 60. Welded-wire fabric reinforcement shall be in accordance with ASTM A-185, grade 65. All interior piping shall be PVC sized to match side sewer line size. Baffles and weir shall be 1/2-inch-thick steel plates galvanized in accordance with ASTM A-123. Vault cover shall include one 24-inch square diamond plate access door and two 12-inch square diamond plate inspection covers centered over outlet tee and inlet. Cover shall be designed for AASHTO H-20 load. See the Standard Details for vault sizes and miscellaneous details.

N. Grease Interceptor

Grease Interceptor Vaults shall be of precast concrete construction. Cement concrete shall have a minimum 28-day compressive strength of 4500 pounds per square inch. Deformed bars for steel reinforcement shall be in accordance with ASTM A-615, grade 60. Welded-wire fabric reinforcement shall be in accordance with ASTM A-185, grade 65. All interior piping shall be PVC sized to match side sewer line size. Interior baffle shall be precast reinforced concrete, 4-inches thick. Concrete baffle shall be secured in place by slotted vault walls or with stainless steel angels as shown in the Standard Detail.

Vault cover shall include 24-inch-diameter bolt-locking manhole covers and frames located over inspection tees. Manhole covers shall not allow passage of air or gases. Vault cover shall be designed for AASHTO H-20 load with 30 percent impact factor. See the Standard Details for vault sizes and miscellaneous details.

O. Lids, Hatches, and Covers – Slip Resistance

Metal lids, hatches and access covers shall be constructed with a non-slip treatment having a coefficient of friction between 0.6 and 1.0 wet, as determined by ASTM C1028-89. Lids, hatches and access covers located on slopes of 4 percent or greater shall have a coefficient of friction between 0.8 and 1.0 wet, as determined by ASTM C1028-89. Prior to installation, the Contractor shall supply the Engineer with a shop drawing of the appurtenance specifying a coefficient of friction meeting or exceeding the above requirement.

P. Commercial Cleanout with Test Sampling Tee

Commercial cleanout and sampling tee shall consist of PVC pipe and fittings configured as shown in the Standard Detail. Cleanout access shall consist of a cast-iron material imbedded in 3000 psi concrete as shown in the Standard Detail. Sampling tee enclosure shall be a concrete meter box as specified in the Standard Detail.

Q. Backwater Valve

Backwater check valve installed on 4-inch to 8-inch-diameter side sewers shall be rubber flapper swing type check valve. Flapper shall be constructed from steel reinforced rubber with 45-durometer standard rubber hardness. Valve seat shall be at 45° angle to direction of flow. Flow area through valve shall equal full pipe area. Valve body shall be cast iron with flanged ends and bolted over to allow removal of flapper without removing valve from line.

Backwater valve shall be housed in 48 inch diameter precast concrete valve chamber with 48-inch by 24-inch concentric reducing cone, or plastic meter boxes, depending on depth. 24-inch frame and cover shall be marked “sewer.” See Standard Detail.

R. Barrier Fence

Barrier Mesh shall be manufactured from Low Density Polyethylene, stabilized against U.V. degradation, and with a special selection of pigments to ensure optimum visual performance under harsh weather conditions. Barrier Mesh shall be corrosion-free and resistant to salt water and most chemicals. Barrier Mesh shall present a visual target area of approximately 0.5 square meter per square meter of mesh.

S. Bedding and Backfill

(1) Pipe Bedding Materials

For PVC and Ductile Iron pipe, bedding for sewer mains shall be “pea gravel” meeting the specifications for a relatively round, processed, washed rock with:

100% passing the 3/8-inch screen
0% passing the #4 screen

If necessary on steep pipe runs, the pipe trench shall be constructed with trench dams of clay or CDF to prevent the migration of water through the pea gravel. Water collected in the trench shall be piped to a suitable discharge location.

For convenience, crushed rock bedding conforming to Section 9-03.9(3) Crushed Surfacing Top Course of the Standard Specifications may also be used as bedding material for pipe.

(2) Trench Backfill Materials

For transverse trenches (perpendicular to the roadway centerline) in paved areas, trench backfill conforming to Section 9-03.9(3) Crushed Surfacing Base Course of the Standard Specifications shall be used.

For longitudinal trenches (trenches parallel to the centerline of the roadway) in paved areas, backfill material (4 feet and deeper below finished grade) shall conform to Section 9-03.14(1) Gravel Borrow of the Standard Specifications. The Contractor may request to use excavated material as trench backfill and must demonstrate to the Engineer that the suitable excavated material conforms to Section 9-03.14(1) Gravel Borrow of the Standard Specifications and proper compaction levels can be achieved. Admixtures and/or additives may not be used to modify the moisture content in order to meet compaction specifications.

The top 4 feet of longitudinal trenches in paved areas shall be backfilled with crushed rock conforming to Section 9-03.9(3) Crushed Surfacing Base Course of the Standard Specifications.

In unpaved areas, trench backfill material shall conform to Section 9-03.14(1) Gravel Borrow of the Standard Specifications. The Contractor may request to use excavated material as trench backfill when it has been determined by the Engineer to be suitable and conforms to Section 9-03.14(1) Gravel Borrow of the Standard Specifications and proper compaction levels can be achieved.

(3) Structure Backfill Materials

In paved areas, backfill material (4 feet and deeper below finished grade) shall conform to Section 9-03.14(1) Gravel Borrow of the Standard Specifications. The Contractor may request to use excavated material as trench backfill when it has been determined by the Engineer to be suitable and conforms to Section 9-03.14(1) Gravel Borrow of the Standard Specifications and proper compaction levels can be achieved.

The top 4 feet around structures shall be backfilled with crushed rock conforming to Section 9-03.9(3) Crushed Surfacing - Top Course of the Standard Specifications.

In unpaved areas, structure backfill material shall conform to Section 9-03.14(1) Gravel Borrow of the Standard Specifications. The Contractor may request to use excavated material as structure backfill when it has been determined by the Engineer to be suitable and conforms to Section 9-03.14(1) Gravel Borrow of the Standard Specifications and proper compaction levels can be achieved.

(4) Foundation Gravel Materials

Foundation gravel for structures shall consist of one of the following aggregates as set forth in the Standard Specifications:

·	Ballast	9-03.9(1)
·	Permeable Ballast	9-03.9(2)
·	Gravel Backfill for Foundations (Class A or B)	9-03.12(1)
·	Foundation Material Class A and Class B	9-03.17

(5) Controlled Density Fill Materials

Controlled density fill (CDF, aka flowable fill) shall be a mixture of Portland Cement, admixture (optional), Fly Ash, aggregates and water. It shall be proportioned to provide a groutly, non-segregating, free flowing, self-consolidating and excavatable material that will result in a non-settling fill which has measurable unconfined compressive strength. CDF shall meet the standard specifications of Section 2-09.3(1)E.

T. Steel Casing

Steel casing shall be black steel pipe conforming to ASTM A-53. Before installing, coat casing exterior with shop-applied anticorrosive coating conforming to AWWA C210. Minimum coating thickness shall be 16 mils dry film thickness (DFT); however, thickness shall not exceed manufacturer's recommended thickness. Coating type shall be a polyamide epoxy-coal tar equal to Tnemec Hi-Build Tneme-Tar, Series 46H-413.

Casing wall thickness shall be 0.250 inch for casings 24 inches or less in diameter and 0.375 inch for casings over 24 inches in diameter.

Carrier pipe for sewage shall be PVC, SDR 35.

U. Casing Spacer

Casing spacers shall be installed in casings over 10 feet long. Where casing spacers are not used, the carrier pipe shall be more than 10 feet in length (no pipe joints inside casing).

Casing spacer shell shall be manufactured in two pieces from heavy gauge T-304 stainless steel or 14 gauge hot rolled pickled steel joined with ribbed flanges. The shell shall be lined with a PVC liner 0.090 inch thick with 85-90 durometer.

Carbon steel casing spacer shell and risers shall be coated with a heat fused PolyVinyl chloride

coating, or hot-dip galvanized.

PolyVinyl Chloride Coating Specifications:

- Durometer - Shore A2 (10 Sec.) (ASTM D-1706-61T) 80
- Max. operating temperature (constant) 150°(65°C)
- Electrical properties (ASTM D-149-61)
 - (short time .010") 1,380 V/Mil
- Resistance:
 - Salt spray (ASTM B-117) Excellent
 - Acids Good
 - Alkalis Good

All nuts and bolts shall be 18-8 stainless steel.

Runners shall be supported by risers made from heavy gauge T-304 stainless steel or 12-gauge hot rolled pickled steel. Runners shall be ultra high molecular weight polymer with high resistance to abrasion and sliding wear.

PROPERTY	ASTM METHOD	UNITS	VALUE
TYPICAL CASING SPACER DATA			
Specific Gravity	D-792	gm/cc	.934
Tensile Strength (Break)	D-638	PSI	3500
Elongation (Break)	D-638	%	380
Izod Impact	D-256	Ft-lbs/in of notch	No break
Hardness	D-2240	Shore D	67
Coefficient of Friction	D-1894	-	0.11 - 0.13
Heat Distortion Temp. 66 PSI	D-648	C	88
Coefficient of Thermal	D-696	F-1	5.5 x 10-5
ABRASION CHARACTERISTICS			
Taber Abrasion	D-1044	Mg/loss	N
Sand Slurry*			7

*Sand slurry condition - 7 hours in one part sand/one part water slurry at 1,725 rpm. Carbon steel - 100, Hifax - 15. The lower the value, the more resistant to abrasion.

Casing spacers shall be “center positioning” type. Height of risers and runners combined shall be sufficient to keep the carrier pipe bell, couplings, or fittings at least 0.75 inch from the casing pipe wall at all times and provide at least 1-inch clearance between runners and top of casing wall, to prevent jamming during installation.

V. Neoprene Foam Pad

Where approved by the City, a neoprene foam pad may be used for cushion between adjacent pipes which are not meeting minimum vertical clearance requirements. The approved material is the Dow Plastics Ethafoam[™] 220, or an approved equal meeting the same ASTM requirements.

W. Individual Pressure Systems

- (1) The grinder sewer pump system shall be a SAM-8 Simplex Grinder System built for Sammamish Plateau Water and Sewer District by PumpTech, IN., 12012 SE 32nd Street, Suite 2, Bellevue, WA 98005; phone: 425-644-8501. The SAM-8 Simplex Grinder package shall be as shown in the details and include the following items:
 - (a) Hydromatic HPG 200 M2-2 Series Hydro-Grind Sewage Pump with 20 feet of power cord.
 - (b) Stainless steel guide rail system.
 - (c) “Hydromatic Simplex Q” packaged control system for a simplex station consisting of the control panel, alarm light, and alarm horn. The panel shall have a 2-pole, 25-amp, 230-volt breaker for the pump, and a separate 1-pole, 10-amp, 120-volt breaker for the alarm. The panel shall be supplied with two exterior alarm buttons: “Push to Test” and “Push to Silence.”
 - (d) Three SJE Rhombus Sensor Float Control Switches, Part No. 1002170, with 30-feet of cable (30SWENO – Weighted Externally, Normally Open).
 - (e) A 23" x 60" fiberglass grinder tank supplied with galvanized steel cover (#11 gauge), stainless steel hold-down bolts, and an anti-flotation flange. The tank will also be provided with a 1-1/4 inch FPT hub connection for the pump discharge piping.
 - (f) The package shall be provided with the following loose items that are to be field located and installed:
 - (i) Two 1-1/4 inch hub connection (one for pump controls, one for float controls);
 - (ii) One 1-1/2 inch PVC vent;
 - (iii) One 1-1/2 inch hub connection for the vent;
 - (iv) Neoprene grommet for the building side sewer (size as required).
 - (g) The tank shall be supplied with a pump guide rail system for removal of pump unit, as manufactured by PumpTech, Inc. All exposed surfaces on guide rail system shall be stainless steel including the lift chain.
 - (h) All valves and piping shall consist of hydraulically sealed discharge flanges.
 - (i) The package system shall meet the requirements of the Washington State Dept. of Labor & Industries for residential grinder pumps.
- (2) Pressure Side Sewer Pipe:

Pressure side sewer pipe shall be high-density polyethylene plastic pipe (HDPE SDR 11), minimum diameter of 1-1/4 inches, with tracer wire. Pressure side sewer pipe shall be equipped with a gate or ball valve prior to the connection to the gravity side sewer.

(3) Fittings and Joints:

- (a) PVC Pipe and Fittings. Threaded, schedule 80 PVC pipe and fitting shall only be installed where PVC parts are required by the City's details. Compression couplings shall only be allowed as part of the Grinder Pump Cleanout as shown in the details.
- (b) HDPE Pipe and Fittings. All HDPE pipe and fittings shall be SDR 11 with electro-fusion welded socket joints. Butt welding shall only be allowed when joining two segments of pipe during installation of the 1-1/4-inch discharge line. Connection of the HDPE pipe to any threaded fittings will be with a full bore HDPE x 316 stainless steel transition fitting, 6 inches in length. Compression couplings are only allowed where shown in the Grinder Pump Cleanout detail.
- (c) Grinder Pump Discharge Piping. A 1-1/4-inch-diameter threaded brass nipple, 12 inches in length, shall be installed on the grinder tank discharge hub.
- (d) The Contractor that performs all HDPE joint welding shall be certified in electro-fusion socket-welding techniques.

(4) Grinder Pump Cleanout:

The Grinder Pump Cleanout shall be equipped with an in-line ball valve, tee with ball valve, and check valve and be housed in an underground utility box, with lid marked "SEWER."

7.05 Sewer Methods of Construction

A. General Construction Requirements

The improvements shall be constructed as shown on the plans and in accordance with these Standards, Standard Details, and Standard Specifications. Manufacturer's equipment shall be installed in compliance with specifications of the manufacturer, except where a higher quality of workmanship is required by the plans and specifications. All materials and work shall be in strict accordance with any applicable regulations of the State, County and local authorities. The Contractor shall arrange for such inspection by these agencies as may be required and shall submit evidence of their approval, if requested by the Engineer.

(1) Alignment and Staking

All work done under a Project shall be to the lines and grades shown on the plans, or to approved revisions.

(2) Inspections and Tests

- (a) The Engineer shall, at all times, have access to the work for the purpose of inspecting and testing, and the Contractor shall provide proper facilities for such access and such inspection and testing.
- (b) If any work is covered up without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered for inspection.

- (c) Before a performance test is to be observed by the Engineer the Contractor shall make whatever preliminary tests are necessary to assure that the material and/or equipment are in accordance with the plans and specifications.
- (d) Written notice of deficiencies, adequately describing the same, shall be given to the Contractor upon completion of each inspection and the Contractor shall correct such deficiencies within seven days of the notice and before final inspection will be made by the Engineer, unless otherwise approved.

B. Grade Establishment

Sewer grades shall be established by means of laser beam, grade boards, lines, poles, plumb bobs or other means approved by the Engineer. The grades shall be checked at periodic intervals as directed by the engineer.

The Contractor shall replace all monuments, right-of-way markers, property stakes, etc., that are removed or disturbed, to the satisfaction of the Engineer, and in accordance with State law.

C. Manhole Excavation

Excavation for precast manholes shall be sufficient to provide a minimum of 12 inches between the manhole and the side of the excavation. The excavation shall be kept free from water until jointing has been completed. Surface water shall be diverted so as not to enter the excavation. The contractor shall maintain sufficient pumping equipment on the job to insure that these provisions are carried out.

D. Pipe Laying

Pipe laying shall be in accordance with the following.

Each pipe shall be laid with bells upgrade with the invert of the pipe to the alignment and grade shown on the plans. Care shall be exercised to insure close concentric joints and a smooth invert. Open ends of pipe and fittings shall be temporarily blocked and covered when laying is not in progress.

Water shall not be allowed in the trench during the pipe laying, joint making, and as long thereafter as is necessary, in the judgement of the Engineer, for the type of joint being used.

Existing sewage flow shall be diverted away from the segment being worked on by method approved by the Engineer.

Adjustment to the line and grade shall be done by scraping away or filling in and tamping material under the body of the pipe. Adjustment to the line and grade by wedging and blocking shall not be permitted.

The pipe shall be lowered into the trench by means of ropes, tripod, crane or any other suitable means. The pipe shall not be dropped or handled roughly. The pipe shall be checked for cracks and defects prior to use and any defective pipe rejected.

Wyes and standing services shall be installed as shown on the Standard Details and at such locations as are shown on the plans or as otherwise directed by the Engineer. These items shall not be covered until the Engineer has recorded their exact location.

E. Alignment Tolerance

Maximum deviation from established line and grade shall not be greater than 1/32 inch per inch of pipe diameter and not to exceed 1/2 inch.

No adverse grade in any pipe length will be permitted.

The difference in deviation from true line and grade between any two successive joints shall not exceed 1/3 of the amounts specified above.

F. Joints

Joint material shall be used in accordance with the recommendations of the manufacturer. Pipe handling after the gasket has been affixed shall be carefully controlled to avoid bumping the gasket and, thus knocking it out of position or contaminating it with dirt or other foreign material. Any gasket so disturbed shall be removed cleaned, re-lubricated and replaced.

Care shall be taken to properly align the pipe before joints are forced home. During insertion of the tongue or spigot, the pipe shall be partially supported by hand, sling, or crane as required to minimize lateral pressure on the gasket and to maintain concentricity until the gasket is properly positioned. Pipe deflection and straightening shall be held to a very minimum once the joint is home to prevent creep of the joint.

Sufficient pressure shall be applied in making the joint to assure that the joint is home as defined in the standard installation instructions provided by the pipe manufacturer. Sufficient restraint shall be applied to the line to assure the joints once home are held so, by tamping fill material under and alongside the pipe or otherwise. At the end of the day's work, the last pipe shall be blocked in such a manner as may be required to prevent creep during down time.

G. Pressure Sewer Mains and Valves

(1) Pressure Main Installation

Pressure pipe as specified on the plans shall be installed as recommended by the pipe manufacturer. Pressure sewer mains shall be laid so that no high point exists except at the discharge manhole or an air release assembly.

(2) Valve Installation

Before installation, valves shall be cleaned of all foreign material. Such blocking as the Engineer may deem necessary shall be provided. The valve and valve box shall be set plumb with the valve box centered on the valve. Valves shall be opened and shut under pressure to check operation without leakage. Where valve operating nut is more than three feet below finished grade, a stem extension conforming to the Water Standard Detail must be installed

The top of the valve box base section shall be located a minimum of 6 inches and maximum of 9 inches below finished grade. A polyethylene sheet, 8-mils thick, shall be placed between the top and base valve box sections to prevent metal to metal contact where the sections overlap.

Valve box top sections shall be adjusted flush with the finished pavement and, in those areas to be excavated for future roadway grades, enough adjustment shall be provided in the valve box to allow the top of the box to be adjusted to the required grade.

(3) Valve Box Marker Installation

Concrete marker posts shall be painted with two coats Rust-Oleum No. 2766 Hi-Gloss white paint. The marker shall be set on a line through the valve at right angles to the centerline of the road. The marker shall generally be set on the property line unless the Engineer decides another location is safer or more conspicuous. Distance to the valves shall be nearly stenciled on the post with 2-inch numerals. Valve markers shall be installed only in unimproved or unpaved areas.

H. Side Sewers

Side sewer locations as shown on the plan are approximate only.

All existing services shall be maintained during construction.

All existing side sewers shall be reconnected or replaced immediately after the trunk is laid. When replacing an existing trunk, side sewers shall be reconnected after the main is tested, when feasible.

Where applicable, all specifications contained herein for sewer materials and construction shall be held to apply to side sewers. Invert of the side sewer at the end of the stub shall be as shown on the plan or as directed by the Engineer.

Ends of the side sewer stubs shall be marked with a 2 x 4 stake, 12-feet long, with one end buried at the depth of the stub-end invert and extending vertically out of the ground. The portion of the stake above ground shall be painted white and marked with the word "SEWER" and the depth from pipe invert to ground surface, and the distance from the main to the end of the stub. An 8-gauge wire shall attach the end of the plugged stub to the 2 x 4 stake, at or above finished ground. See Standard Detail.

Slope of side sewers shall not exceed 100 percent and shall not be less than 2 percent, unless approved by the Director, to a minimum of one percent. All side sewers shall be capped.

Where change in slope is greater than 2 inches per foot, standard 1/8 bends shall be used.

I. Manholes

Manholes shall be constructed as shown in the Standard Details for standard manholes and drop manholes. Manholes shall be of precast reinforced concrete. Manhole ring and covers shall be adjusted to the elevation required by the Engineer prior to final acceptance of the work.

The manhole base section shall be placed on firm soil. If the foundation material is inadequate,

the Contractor shall use foundation gravel or bedding concrete under the normal base to support the manhole.

Manholes in easements shall be constructed to provide a stable, level grade for a minimum radius of 2.5 feet around the center of the access opening.

Manhole sections shall be placed and aligned so as to provide vertical sides and vertical alignment of the ladder steps. The completed manhole shall be rigid, true to dimension, and be watertight. Rough, uneven surfaces will not be permitted.

Where work is located in public right-of-way, not less than 10 inches (6-inch ring with 4 inches of riser section) nor more than 24 inches (6-inch ring with 18 inches of riser section) shall be provided between the top of the cone or slab and the top of the manhole frame.

The outside and inside of manhole adjusting bricks and the joints of any non-gasketed precast concrete sections shall be thoroughly wetted and completely filled with mortar, plastered and troweled smooth with 3/4 inch of mortar in order to attain a watertight surface. Mortar shall be placed between each level of adjusting bricks, riser rings, top of cone section, and bottom of iron ring.

All lift holes, if any, on precast items shall be completely filled with expanding mortar, smoothed both inside and out, to insure water-tightness. All steel loops, if any, on precast section must be removed, flush with the manhole wall. The stubs shall be covered with mortar and smoothed. Rough, uneven surfaces will not be permitted.

Channels shall be made to conform accurately to the sewer grade and shall be brought together smoothly with well-rounded junction, satisfactory to the Engineer. The channels shall be field poured after the inlet and outlet pipes have been laid and firmly grouted into place at the proper elevation. Allowances shall be made for a minimum of 0.1-foot drop in elevation across the manhole in the direction of flow. The maximum allowable drop in invert elevation across the manhole in the direction of flow shall be 1.0 feet. Channel sides shall be carried up vertically from the invert to three-quarters of the diameter of the various pipes. The concrete shelf shall be warped evenly and sloped 1 inch per foot to drain. Rough, uneven surfaces will not be permitted. Channels shall be constructed to allow the installation and use of a mechanical plug of the appropriate size. Prefabricated manhole bases with glass fiber supported plastic or PVC hard lined channels will be allowed at the Contractor's option.

All manholes located in unpaved areas shall include a concrete collar around the manhole adjusting bricks per Standard Detail S-8.

All rigid pipe entering or leaving the manhole shall be provided with flexible joints within 12 inches of the manhole structure and shall be placed on firmly compacted bedding. Special care shall be taken to see that the openings through which pipes enter the structure are completely and firmly filled with mortar from the outside to ensure water-tightness. All PVC pipe connections to manholes shall be made with gasketed coupling as approved by the City.

J. Connection to Existing Manhole

Connection to existing manhole shall be accomplished in such a manner that all existing services are maintained, that no refuse, broken brick, concrete or other extraneous matter enter into the existing sewer. The outfall shall be plugged or screened throughout the contractors operation at

the Engineer's option.

A circular opening shall be carefully core drilled in the manhole barrel on the proper alignment so that the new sewer will be in line with the center of the manhole, and at the height which will allow the new sewer to be placed at the proper grade. The opening shall be of such size as to provide clearance of not less than 1 or more than 3 inches between the outside of the pipe and the manhole wall. Pipe connections, channel forming, grouting of pipe and backfilling shall be as specified previously for standard manholes.

No additional pipe shall be connected until final set of the grout has occurred. When additional pipe is connected, care shall be taken to avoid shocks or other undue strains to the grouted pipe.

Any opening resulting from removal of existing pipe shall be filled with mortar to provide a watertight seal, unless new pipe is to be reconnected to that opening.

When any new sewer is connected to an existing manhole with an inside drop structure, the minimum angle between drop piping and existing access steps shall be 90° (1/4 of manhole circumference), or 45° for 6-inch pipe. Where minimum clearance cannot be met, the cone section shall be rotated and steps relocated to provide maximum possible clearance from drop tee and pipe. Cut existing steps flush with manhole wall and cover stubs with mortar to provide a smooth finish.

When any new sewer is connected to an existing manhole, the manhole shall be reconstructed to conform to current standards.

Upward adjustments of old, existing manholes must be done with all new parts including cone section so there is only one mismatched seam. The mismatched seam shall be reinforced with a concrete collar poured around the seam, 6 inches to 12 inches above and below the seam line, around the outside of the manhole, minimum 6-inches thick. The collar may also be sealed with the Wrapid Seal™ (or equivalent) manhole encapsulation system.

In addition, where the new manhole barrel section key is not compatible with the existing barrel section key, the new section key shall be broken off as shown in sanitary sewer Standard Detail S-9 "Manhole Section Adjustment."

K. Cleaning and Flushing

Prior to pipe testing, all pipes shall be cleaned in the following manner:

The Contractor shall furnish an inflatable rubber ball of a size that will inflate to fit snugly into the pipe to be tested. The ball may, at the option of the Contractor, be used without a tag line; or a rope or cord may be fastened to the ball to enable the Contractor to know and control its position at all times. The ball shall be placed in the last cleanout or manhole on the pipe to be cleaned and water shall be introduced behind it. The ball shall pass through the pipe with only the force of the water impelling it. All debris flushed out ahead of the ball shall be removed at the first manhole where its presence is noted. In the event cemented or wedged debris or damaged pipe stops the ball, the Contractor shall remove the obstruction.

L. Testing of Gravity Sewers

Method of testing gravity sewers shall be at the option of the Contractor unless otherwise specified herein.

(1) Water Test

Tests for water tightness shall be made by the Contractor in the presence of the Engineer. A test shall be made for every section of the sewer, including the side sewers, after completion of backfill. Where the groundwater table is so high as to preclude a proper exfiltration test, an infiltration test may be used. The exfiltration test shall be made by plugging the inlets of the lower manhole and filling the test section with water to a height of 6 feet above the crown of the sewer at the upper end of the sewer being tested.

The time of exfiltration tests shall be a minimum of 1 hour. The leakage (exfiltration or infiltration) during the test shall not exceed the following allowances:

Allowable Leakage in gal/100 linear feet/hr						
Head above Crown on Lower End of Test Section						
Pipe Size	6 Ft.	8 Ft.	10 Ft.	12 Ft.	14 Ft.	16 Ft.
6"	0.6	0.7	0.7	0.8	0.8	0.9
8"	0.8	0.9	1.0	1.0	1.1	1.2
10"	1.0	1.1	1.2	1.3	1.4	1.5
12"	1.2	1.3	1.4	1.6	1.7	1.8
15"	1.5	1.7	1.8	2.0	2.1	2.3
18"	1.8	2.0	2.2	2.3	2.5	2.7
24"	2.4	2.6	2.9	3.1	3.4	3.6

Repair by chemical grouting will not be allowed.

Where the groundwater exceeds a height of 6 feet above the crown of the sewer at the upper end of the test section, the section shall be tested by infiltration. The infiltration test shall be conducted by placing a plug in the inlet sewer at the upper manhole and inserting an approved measuring device in the inlet sewer at the lower manhole. Prior to making measurements, care shall be taken to assure that the flow over or through the measuring device is constant. A minimum of four measurements shall be made over a period of one hour.

The acceptance water test shall be made after backfilling has been completed and compacted, and ATB has been placed in areas to be paved.

(2) Air Testing

The Contractor may use a low-pressure air test at his option. The following procedures shall be used on conducting the low-pressure air test. The Contractor shall furnish all facilities and personnel for conducting the test under the observation of the Engineer. The equipment and personnel shall be subject to the approval of the Engineer.

The requirements of this specification shall be considered satisfied if the time required in seconds for the pressure to decrease from 3.5 to 2.5 pounds per square inch greater than the average back pressure of any groundwater is at least as follows:

<u>Size of Pipe</u>	<u>Seconds per Lineal foot of Pipe</u>
4 inch	0.11
6 inch	0.25
8 inch	0.46
10 inch	0.72
12 inch	1.04
15 inch	1.63
18 inch	2.35
21 inch	3.20
24 inch	4.18

The use of air pressure for testing sewer lines creates hazards that must be recognized. The Contractor shall be certain that all plugs are securely blocked to prevent blowouts. An air supply regulator shall be installed on the air supply line to the sewer that shall permit a maximum of 10 psi in the line to be tested. All pressure shall be relieved from the sewer section being tested prior to removal of test plugs.

(3) Deflection Test for Flexible Pipe

Sanitary sewers constructed of flexible pipe shall be deflection tested not less than 30 days after the trench backfill and compaction has been completed, and ATB has been placed in areas to be paved.

Testing shall be conducted on a manhole to manhole basis and shall be done after the line has been completely flushed out with water.

Contractor shall locate and repair any sections failing to pass the test and to retest the section.

M. Television Inspection

The Developer shall provide the City with a DVD inspection of all sanitary sewers prior to final project acceptance.

If defects are found or suspected during the warranty period, the City may also require that the Developer provide video inspection of any or all sanitary sewers before expiration of the warranty.

The Contractor shall correct all deficiencies found during television inspection.

N. Testing of Pressure Sewer Mains

Prior to acceptance of the project, the pressure line shall be subjected to a hydrostatic pressure test of 100 psi at the high point of the line. Any leaks or imperfections developing or occurring under the test pressure shall be remedied by the Contractor before final acceptance of the project. Leakage shall be measured by approved means. Test pressure shall be maintained while the entire installation is inspected. The Contractor shall provide all necessary equipment and shall perform all work connected with the tests. Insofar as is practical, test shall be made with pipe joints and fittings exposed for inspection. Maximum allowable leakage shall be 0.05 gallons per hour per inch of pipe diameter per 100 feet of pipe.

O. Vacuum Testing of Precast Manholes

Vacuum testing (negative air pressure) may be required by the City in areas of high groundwater. Prior to backfilling, each manhole shall be tested using the vacuum testing method specified in ASTM C1244 to ensure that the manhole is watertight. Testing of manholes constructed on existing sewer lines where flow must be maintained will not be required.

Backfilling of the manhole prior to testing is permitted.

The Contractor shall furnish all equipment and labor required, including necessary piping/hoses, pneumatic plugs, test vacuum equipment (vacuum pump and vacuum plate/head), vacuum gauge, and second timer. The vacuum gauge shall have a maximum range of 0 to 30 inches of mercury (Hg) and the vacuum gauge intervals shall be in 1/2-inch increments.

The vacuum test shall be performed by the Contractor in the presence of City of North Bend personnel. The Contractor shall furnish test reports of each test to the Engineer.

Testing

If a coating or lining has been applied to the interior of the manhole, the vacuum test must not be performed until the coating or lining has been cured according to the manufacturer's recommendations. In addition, this existing manhole must be structurally sound prior to vacuum testing.

Drop connections shall be installed prior to testing.

The vacuum test shall include testing of the seal between the frame and the concrete cone, slab, or grade rings.

After cleaning the interior surface of the manhole, the Contractor shall place and inflate pneumatic plugs in all the connecting pipes with the exception of sewer services to isolate the manhole. Complete sewer services entering the manhole shall be a part of the manhole vacuum test.

The vacuum plate/head shall be placed on top of the manhole lid frame. The vacuum pump shall be connected to the outlet port with the valve open. When a vacuum of 10 inches of mercury has been attained, the vacuum pump shall be shut off. With the outlet valve closed, the time shall be measured for the vacuum to drop to 9 inches. Following are the **minimum** allowable test times for manhole acceptance at the specified vacuum drop:

Depth of Manhole (feet)	Time (Seconds)		
	48-Inch Dia.	60-Inch Dia.	72-Inch Dia.
4	10	13	16
8	20	26	33
12	30	39	49
16	40	52	67
20	50	65	81
24	59	78	97
26	64	85	105
28	69	91	113
30	74	98	121
Add for each additional 2 feet of depth:	5	6.66	8
Measurements taken from ASTM C1244			

All pneumatic plugs shall be removed from the manhole after the test.

Failure

Any manhole that fails the initial vacuum test must be repaired with an approved non-shrink grout material for manholes. The Contractor shall excavate the manhole and apply non-shrink grout on the interior and exterior of the manhole in the leaking area or the entire surfaces. Any repair between the pipes and the manhole (gasket waterstop area) requires the removal of the pipe by means of coring and the installation of a new pipe with waterstop (grouting the annular opening). Upon completion of the repairs, the manhole shall be retested as described in the above test procedures.

Any manhole that ultimately fails the vacuum test is rejected and shall be entirely removed and replaced with a new manhole. The new manhole shall not be backfilled until it has been tested and passed the above test procedures.

Acceptance

The manhole shall have passed the vacuum test if the manhole vacuum does not drop below 9 inches of mercury during the minimum specified test period.

P. Oil/Water Separator and Grease Interceptor

Oil/water separators and grease interceptors shall be constructed as shown in the Standard Details. Excavation for precast vault shall be sufficient to provide a minimum of 12 inches between the vault and the side of the excavation.

Vault shall be placed at proper depth to set vault cover flush with finish grade. If additional depth of cover is required over inlet or outlet piping, vault riser sections shall be installed to raise vault cover a maximum of 24 inches. Adjusting rings for manhole frame shall be manufactured from precast reinforced concrete. Total height of rings shall be from 8 inches minimum to 20 inches maximum.

The oil/water separator or grease interceptor shall be placed on firm soil. If the foundation material is inadequate, the Contractor shall use foundation gravel or bedding concrete under the normal base to support the separator.

Vault shall be placed and set plumb so as to provide vertical sides. The completed separator or interceptor shall be rigid and watertight.

The outside and inside of manhole adjusting rings, joints of precast concrete sections and the perimeter of precast baffle (grease interceptor) shall be thoroughly wetted and completely filled with mortar, plastered and troweled smooth with 3/4 inch of mortar in order to attain a watertight surface.

All lift holes, if any, on precast items shall be completely filled with expanding mortar and smoothed both inside and out, to insure water-tightness. All steel loops, if any, on precast section must be removed, flush with the vault wall. The stubs shall be covered with mortar and smoothed. Rough, uneven surfaces will not be permitted. Precast vault shall be provided with 8 inch diameter knockouts at all pipe openings or have openings core-drilled prior to installation.

All rigid pipe entering or leaving the structure shall be provided with flexible joints within 12 inches of the manhole structure and shall be placed on firmly compacted bedding. Special care shall be taken to see that the openings through which pipes enter the structure are completely and firmly filled with mortar from the outside to ensure water-tightness. All PVC pipe connections to vault shall be made with gasketed coupling as approved by the City.

Q. Commercial Clean-Out with Test Sampling Tee

Test sampling tees shall be placed outside the building no more than 24-inches downstream of a cleanout extended to grade, enclosed in a cast concrete meter box as shown in the Standard Detail. The enclosure shall be supported on minimum 2-inch-thick gravel base. The capped orifice shall be a maximum of 4 inches from finished grade. The sampling tee shall be installed so that it opens in a direction at right angles to and vertically above the flow of the pipe. The sampling tee shall be accessible at all times for compliance determination sampling.

The cleanout shall be brought to grade and provided with a cast iron ring and cover imbedded in 3,000 psi cement concrete as shown in the Standard Detail.

R. Preconstruction Photos for City Contracts

Before commencing any construction work as described in the plans and specifications, the Contractor shall provide photographs of pre-existing conditions of the area that will be disturbed during construction operations.

Photographs will be obtained as follows:

- Every 25 feet interval in easements.
- Every 50 feet interval in paved areas.
- And any other location as directed by the Engineer.

The photographs shall be taken with a digital camera with the photographs saved on a CD and provided to the City.

S. Trench Excavation

Before commencement of trenching provide a sediment trap for all downhill storm drain catch basins per City of North Bend standard detail. Plastic sheeting must be available on-site. In case of rain any stockpiled material must be covered and secured.

Clearing and grubbing limits may be established by the Engineer for certain areas and the Contractor shall confine his operations within those limits. Debris resulting from the clearing and grubbing shall be disposed of by the Contractor.

Trenches shall be excavated to the line and grade designated by the Engineer and in accordance with the Standard Details. Trenches shall comply with OSHA and WISHA requirements regarding worker safety.

The trench shall be kept free from water until joining has been completed. Surface water shall be diverted so as not to enter the trench. The Contractor shall maintain sufficient pumping equipment on the job to insure that these provisions are carried out. The Contractor shall perform all excavation of every description and of whatever substance encountered as part of his trench excavation cost. Unsuitable material below the depth of the bedding shall be removed and replaced with satisfactory materials as determined by the Engineer.

Trenching operations shall not proceed more than 100 feet in advance of pipe laying except with written approval of the Engineer.

Providing sheeting, shoring, cribbing, cofferdams, and all aspects involved therein shall be the sole responsibility of the Contractor. Such trench/excavation protection shall comply with the requirements of Section 2-09 Structure Excavation and Section 7-08.3(1)B Shoring of the Standard Specifications, Chapter 49.17 RCW of the Washington Safety and Health Act, and Part N – Excavation, Trenching, and Shoring of Chapter 296-155 WAC.

When trenching operations take place in the public right-of-way, the pavement, and all other improvements, shall be restored as required by the Right-Of-Way Use Permit.

Prior to excavation through asphaltic concrete, or Portland cement concrete surface areas, the pavement shall be removed to a width of 24 inches greater than the top width of the trench. Prior to trenching through areas improved with lawn or through fences, rockeries, shrubs, plants, or other improvements, these improvements shall be removed, stored and protected. After the sewer installation is complete, the improved area shall be returned to a condition equal to or better than the area before the sewer installation. If any stored improvements are not suitable for reuse after construction, they shall be replaced with an improvement of equal or better quality.

T. Trenchless Construction

The use of trenchless construction methods such as pipe bursting and horizontal directional drilling shall be considered by the City on a case-by-case basis under the following conditions:

- (1) HDPE DR 26 or thicker-walled pipe required.
- (2) Romac 501 transition couplings are required at both ends.
- (3) The installed pipe must be electronically located and marked on the ground for

measurement in order to draw the as-built schematics.

- (4) The pipe must be video-taped following installation, with water running. The tape must be provided to the Inspector to approve the installation or require corrections.
- (5) Pipe bursting is not allowed on private property or Right-of-Way without the appropriate permission, such as an easement or Right-of-Way use permit.

U. Sheeting and Shoring

The Contractor shall provide and install sheeting and shoring as necessary to protect workmen, the work and existing utilities and other properties in compliance with OSHA and WISHA requirements. All sheeting and shoring above the pipe shall be removed prior to backfilling. Sheeting below the top of the pipe may be cut off and left in place.

All trenches and excavations more than 4 feet in depth shall be shored in compliance with applicable Federal and State regulations. Shoring shall be required in all street excavation. Sloping to the angle of repose will be permitted only in non-critical off-street areas.

Removal of the sheeting and shoring shall be accomplished in such a manner that there will be no damage to the work or to the other properties.

V. Trench Dewatering

When water is encountered to a degree that a successful trenching and pipe laying operation is hampered, dewatering will be the responsibility of the Contractor. Determination of the method to be used to dewater trenched areas will be the responsibility of the Contractor, but any method used must be in accordance with the specifications and requirements of the Washington State Department of Ecology and the Local Jurisdiction.

W. Bedding, Backfill, and Compaction

(1) Pipe Bedding Construction Requirements

Pipe bedding shall conform to Section 7-08.3(1)C Bedding the Pipes of the Standard Specifications as modified herein in order to provide uniform support along the entire pipe barrel, without load concentration at joint collars or bells.

Jetting is not an allowable method to compact the bedding materials.

(2) Trench and Structure Backfill Construction Requirements

Backfilling shall be accomplished in accordance with Section 2-09 Structure Excavation of the Standard Specifications as modified herein:

In paved areas, trench backfill material shall be compacted to 95 percent maximum dry density per Section 2-03.3(14)D Compaction and Moisture Control Tests of the Standard Specifications.

In unpaved areas, trench backfill material shall be compacted to 90 percent maximum dry density per Section 2-03.3(14)D Compaction and Moisture Control Tests of the Standard Specifications.

The Contractor shall arrange for compaction testing to be performed by a certified technician. The Contractor shall provide the Engineer with one copy of the compaction test report within 24 hours of the completion of the test.

Compaction tests shall be made at a maximum of 4-foot depth increments with a minimum of one test for any backfilling less than 4 feet in depth. The maximum space between trench tests shall not exceed 100 linear feet. At least one compaction test shall be performed at each backfilled structure or for every 50 CY of backfill placed. If the structure (e.g., manhole) is part of a pipeline trench, then trench compaction testing frequency governs.

For mechanical compaction methods ("hoe pack," vibratory roller, static roller, etc.), the maximum backfill lift shall not exceed 2 feet between the application of compaction equipment.

For manual compaction methods (all walk-behind equipment, "jump jack," etc.), the maximum backfill lift shall not exceed 1 foot between the application of compaction methods.

Jetting is not an allowable method to compact the trench backfill.

Surface restoration shall be as specified in the Right-of-Way Use Permit and as shown on the approved plans.

(3) Foundation Gravel Construction Requirements

Foundation gravel under manholes, catch basins, inlets, vaults, and other precast concrete structures shall be placed in layers not more than 6-inches thick and compacted to provide a firm and level base on which to place the structure. Unless shown otherwise on the Contract Plans, the minimum thickness of foundation gravel under precast concrete structures is 6 inches.

(4) Controlled Density Fill Construction Requirements

Controlled Density Fill (CDF) can be proportioned to be flowable, non-segregating, or excavatable by hand or machine. Desired flowability shall be achieved with the following guidelines:

- Low Flowability below 6-inch slump
- Normal Flowability 6 to 8-inch slump
- High Flowability 8-inch slump or greater

CDF shall be placed by any reasonable means into the area to be filled.

CDF patching, mixing and placing may be started if weather conditions are favorable, when the temperature is at 34 degrees F and rising. At the time of placement, CDF must have a temperature of at least 40 degrees F. Mixing and placing shall stop when

temperature is 38 degrees F or less and falling. Each filling stage shall be as continuous an operation as is practicable. CDF shall not be placed on frozen ground.

Trench section to be filled with CDF shall be contained at either end of trench section by bulkhead or earth fill.

When used to support existing asbestos cement (A.C.) pipe, the flowable CDF shall be brought up uniformly to the bottom of the A.C. pipe, as shown on the plans, or as directed by the Engineer.

Contractor shall provide steel plates to span utility trenches and prevent traffic contact with CDF for at least 24 hours after placement or until CDF is compacted or hardened to prevent rutting by construction equipment or traffic.

X. Adjust Existing Structure to Grade

(1) Manhole and Cleanout adjustment

Existing manholes and cleanouts affected by the overlay as shown in the Plan shall be adjusted to grade within three working days of overlay.

Adjustment of existing manholes shall be in accordance with Section 7-05.3(1) of the Standard Specifications. Cleanouts adjusted to grade shall conform to the Standard Detail.

(2) Valve Box Adjustment - Pavement Overlays and Sidewalks

(a) Raising the existing valve box cover less than 2 inches shall be accomplished by adjusting the existing top section of the valve box.

(b) Raising the existing valve box cover 2 inches or more, shall be accomplished by either adjusting the existing top section or by inserting a valve box paving riser into the existing valve box top. The paving riser shall be epoxied to the valve box.

(c) If the valve box base section needs to be extended, the contractor shall install a 4-inch-diameter cast iron soil pipe, with bell-end of the soil pipe inserted over the top of the existing valve box base section. The spigot-end of the soil pipe shall be located a minimum of 6 inches and maximum of 9 inches below finished grade. The valve box top section shall be slipped over the soil pipe and adjusted to final grade. A polyethylene sheet, 8-mils thick, shall be placed between the valve box and soil pipe to prevent metal to metal contact where the sections overlap.

Final box adjustment shall leave the top of the valve box no higher than final grade, and no lower than 0.5 inch below final grade.

In asphalt concrete pavement overlay areas, excavation of the valve box to be raised shall be accomplished by sawcutting or neat-line jackhammering the pavement a minimum of 12 inches around the perimeter of the valve box.

Final adjustment of valve boxes shall be made within 20 calendar days following the final overlay.

(3) Valve Box Adjustment - Unimproved Areas

Adjustment of valve box covers located outside paved areas or sidewalks can be accomplished using a 12-inch valve box adjusting sleeve inserted into the existing valve box top section.

Y. Abandoning Facilities

(1) Abandoning Pipe in Place

The Contractor shall completely fill the pipeline to be abandoned with sand, concrete, or controlled density fill; or remove it.

(2) Abandoning Structures

Abandonment of structures shall be completed only after piped systems have been properly abandoned. Structures within the public right-of-way, a public easement or which are part of the publicly-owned and maintained system must be:

- Removed completely according to Section 2-02 of the current Standard Specifications; or
- Abandoned according to Section 7-05.3 of the current Standard Specifications, except that controlled density fill may be used in lieu of sand if desired, provided no conflicts with new utilities or improvements arise.

Z. Lawn Removal and Replacement

Any lawn damaged by the Contractor outside of limits shown on the plan shall be restored to conditions existing prior to construction, contractor shall take care to limit the area of disturbance.

When lawn removal and replacement is called for, a sufficient width (at least 2-feet wider than outside width of backhoe wheels or tracks) of lawn turf shall be removed prior to beginning excavation so that heavy equipment does not run over the lawn.

The area of the sod to be removed shall be laid out in squares or strips of such size as to provide easy handling and matching. The sod shall then be carefully cut along these lines to a depth of 4 inches, taking care to keep cuts straight and strips of the same width. After the sod has been cut vertically, it shall be removed to a uniform depth of approximately 3 inches with an approved type of sod cutter.

This operation shall be performed in such manner as to ensure uniform thickness of sod throughout the operation.

Prior to installation of new sod, the scalped area shall be carefully shaped to proper grade and be thoroughly compacted. Wherever the construction operations have resulted in the placement of unsuitable or poorer soils in the area to be resodded, the surface shall be left low and covered with top soil.

The finished grade, after shaping and compacting the top soil, shall be thoroughly dampened prior to and immediately before replacing the sod. The sod shall be replaced to the required grade, taking care to butt each piece tightly against the adjacent one. Upon completion, the sod shall be dampened and rolled with a lawn roller.

All tools used shall be of the type specially designed for the work and be satisfactory to the Engineer. In no case shall sod be removed by the use of a mattock or other tools which will not meet requirements specified herein.

Sod shall be a 4-way blend of Ryegrasses.

AA. Boring Under Roots

Boring under the root systems of trees (and plants) shall be accomplished by excavating a trench or pit on each side of the tree and then hand digging or pushing the pipe through the soil under the tree. The pit walls shall be a minimum of 7 feet from the center of the tree and shall be sufficient depth to lay the pipe at the grade shown on the plan and profile.

BB. Highway and Railroad Crossings

Interstate, state, or county highway and railroad crossings require the placing of steel, cast iron or concrete pipe casing by jacking or tunneling and laying the carrier pipe within the casing.

CC. Boring and Jacking Steel Casing

The Contractor shall verify the vertical and horizontal location of existing utilities. If required to avoid conflicts and maintain minimum clearances, adjustment shall be made to the grade of the casing.

The pipe shall be bored and jacked where indicated. The Contractor shall remove or penetrate all obstructions encountered. If groundwater is found to be a problem during boring operations, the Contractor shall do all that is necessary to control the flow sufficiently to protect the excavation, pipe and equipment so that the work is not impaired. Any pipe damaged during the boring and jacking operation shall be repaired by the Contractor in a manner approved by the Engineer.

Special care shall be taken during the installation of the bored and jacked pipe to insure that no settlement or caving be caused to the above surface. Any such caving caused by the placement of the pipe shall be the Contractor's responsibility and he shall repair any area so affected as directed by the Engineer.

During the jacking operations, particular care shall be exercised to prevent caving ahead of the pipe which will cause voids outside of the pipe. If voids exist, the Contractor shall drill through the wall of the pipe and fill the voids with a pumped cement grout. All voids shall be filled to the satisfaction of the Engineer.

The carrier pipe shall be installed in the casing as shown on the drawings. Where length of the casing exceeds 10 feet, the Contractor shall support carrier pipe with casing spacers as shown in the Standard Detail. The casing pipe shall not be backfilled with sand and grout. The casing ends shall be sealed with manufactured rubber end seal device.

Boring pits shall be backfilled with select native material and compacted to 95 percent maximum dry density as determined by Section 2-03.3(14)D, "Compaction and Moisture Control Tests," of the Standard Specifications. The Contractor shall provide sufficient select backfill material to make up for the rejected material.

All disturbed ground shall be restored to its original condition or better.

DD. Working with Asbestos Cement Pipe

When working with asbestos cement pipe, the Contractor is required to maintain workers' exposure to asbestos material at or below the exposure limit as prescribed in WAC 296-62-07705 State/Federal Guidelines and Certification.

EE. Asbestos Cement Water Main Crossings

Where new utility line crosses below an existing AC main, the AC pipe shall be replaced with DI pipe to 3 feet past each side of trench as shown on the Standard Detail. Alternatively, where directed by the Engineer, the trench shall be backfilled with controlled density fill (CDF, aka flowable fill) from bottom of trench to spring line of the AC main.

FF. Clearances/Other Utilities

If the minimum vertical distance between utility pipes is less than 6 inches and such installation is approved by the City, a pad shall be placed between the pipes. The pad shall be O.D. x O.D. x 2.5-inches thick minimum or as required to protect the pipes. Above O.D. is equal to the outside diameter of the larger pipe. The pad shall be a polyethylene foam plank (Dow Plastics Ethafoam™ 220), or approved equal. Additional measures may be necessary to ensure system integrity and may be required as evaluated by the City on a case by case basis.

GG. Individual Pressure Systems

Sewer grinder pumps shall be installed in accordance with the manufacturer's recommendations, and all applicable building codes and state regulations. The grinder pump tank and control panel shall be installed for easy access in performing all maintenance and repair activities.

7.06 Side Sewer Regulations

A. General

The following requirements govern side sewer construction in the sewer service area. These standards apply to sewerage facilities from the point of connection to the public sewer system (end of a side sewer stub, mainline tee/wye, or a hole-cut into a sewer main) to the building.

B. Connection Required

Whenever connection to the sewer system is required, the property owner shall remove any connection to a cesspool, septic tank, or other on-site wastewater disposal facilities and direct connection should be made to the sewer system. Former facilities must be abandoned per King County Health Department regulations.

C. Responsibility of Side Sewer Contractor

The licensed side sewer contractor shall be responsible for complying with all requirements of the City related to side sewer construction, for any and all actions or omissions of his employees, and for any damage done to existing improvements and utilities encountered during any excavation.

D. Side Sewer Permit

(1) Permit Application Requirements

In making application for a side sewer permit, the owner or side sewer contractor shall furnish the City with a drawing showing:

- (a) The size and location of structures on the property.
- (b) The full course of the proposed side sewer from the public sewer in the street to the structure. Single-family residences are exempt from this requirement unless installing a joint use line.

If trenchless methods are being proposed for installing or rehabilitating a side sewer, provide documentation describing the method(s) and materials to be used.

Any street opening permits required to complete installation of a side sewer must be obtained prior to acceptance of the permit application.

The Applicant must show that any easements that may be required for installation of the side sewer have been obtained and recorded with King County.

All permit fees required by the City must be paid with the permit application.

(2) Permit Restrictions

- (a) No permit will be issued for side sewer connection before the public or private sewer system is accepted by the City.
- (b) No work shall be started on any private or side sewer without a permit.
- (c) No licensed side sewer contractor shall do any side sewer work under any other person's permit.
- (d) No side sewer work shall be done without approval and inspection by the City.

(3) Work on Private Property

The owner is the only person authorized to install and repair side sewers on his own property other than a licensed side sewer contractor.

(4) Work on Public Property

Only a licensed side sewer contractor may be issued a permit for side sewer work in a public right-of-way.

(5) Old Side Sewers for New Buildings

When an existing structure is removed and new structure is constructed, a new permit is required, and any existing side sewer that does not meet the current requirements of the City shall be replaced.

(6) Other Permits Required

The issuance of a side sewer permit by the City shall not relieve the permit holder from the responsibility of obtaining such other permits or licenses as may be required by the City of North Bend, the county, or other cities or towns in whose jurisdiction the side sewer is installed.

(7) Posting Side Sewer Permit

The contractor's side sewer permit shall be available at the job and must be readily accessible to the inspector. No inspection will be made unless such permit is readily available at the job site.

E. General Notification Requirements

All side sewer cleaning contractors and/or plumbers, side sewer contractors, and owners shall notify the City of such operations prior to cleaning existing side sewers (as distinguished from plumbing and septic tank facilities).

F. General Construction Requirements

(1) General

All materials and methods of construction for side sewers shall be equal to those used for sewer mainline construction, unless otherwise listed herein.

(2) Restoration of Thoroughfares and Right-of-Ways

It shall be the responsibility of the licensed side sewer contractor to cut the road surface, dig a trench, lay the pipe, make the connection to the wye or tee, backfill the trench and restore the roadway surfacing and vegetation within the limits of any thoroughfare or right-of-way, public or private. Such work shall be performed as quickly and with as little hindrance to traffic as possible, and in strict accordance with the requirements of the City, the county, or other city or town within whose jurisdiction said thoroughfares or right-of-way is located.

(3) Inspections

After the side sewer permit is obtained, arrangements for inspection of a side sewer installation shall be made with the City, 24 hours in advance by the side sewer contractor. The City reserves the right to set the time for inspections.

An extra charge shall be made by the City for each visit to any person who requests any inspection after regular hours on a workday, or on a weekend or holiday. The side sewer contractor will be billed for hours beyond that included in the permit fee.

(4) Site Safety

The following minimum requirements shall apply to safety practices to be followed by licensed side sewer contractors while performing permitted side sewer work in the sewer service area:

Barricades - Before beginning excavation in a public area there shall be at the site sufficient barricades to properly protect the work. The barricades shall be illuminated during the nighttime hours with a minimum of four flares or flashing signals.

Trench Covering - All excavations or trenches within a public area or within four feet of a public area must be temporarily covered at night and during hours of work site inactivity.

Ditch Pumps - During pipe laying, a ditch pump shall be available at the site.

Shoring - The contractor shall have immediately available for use sufficient shoring to adequately protect workers where unstable ground conditions are encountered, in accordance with OSHA and WISHA requirements.

Flagger - A flagger must be posted whenever work is underway in a public thoroughfare.

(5) Site Cleanup

The side sewer contractor shall remove all debris and excess excavation and shall repair all damage, public or private, in kind immediately after backfilling.

(6) Failure to Restore Excavations

If any excavation is left open beyond a reasonable length of time, the City may cause the excavation to be backfilled and the public way restored. Any cost incurred in such work shall be charged to the owner or side sewer contractor in charge of such work, and shall be payable immediately to the City upon written notification of the amount thereof given to the contractor or posted at the location of the work.

(7) Failure to Complete Side Sewer Work

If any work done under a side sewer permit is not in accordance with provisions of the requirements of the City and if the contractor or person doing the work fails and/or refuses to properly construct and complete such work, notice of such failure or refusal shall be given to the owner or occupant of the property. The City may cause the work to be stopped. If the work, in the opinion of the City, constitutes a hazard to public safety, health or the public sewer, such work may be completed by the City. The cost of such work and any materials and administrative services necessary therefor shall be charged to the owner and/or contractor and shall be payable by the owner and/or contractor immediately upon written notice given by the City of the amount thereof or by posting a notice thereof on the premises.

Such cost shall constitute a civil debt owing to the City jointly and severally by the persons who have been given notice as herein provided. The debt shall be collectable in the same manner as any other civil debt owing to the City.

G. Side Sewer Fittings Requirements

(1) Bends and Wyes

All changes of direction shall be made with bends, wye branches or a combination of wye branch and bends.

(2) Side Sewer Cleanouts

The following specifications shall apply for all side sewer cleanouts except as provided for in Section 7-06 I "Joint Side Sewer Cleanouts".

- (a) All changes of direction greater than forty-five degrees will be made with a wye branch and bends as required. Where wye branches are used, a cleanout should be included per the Standard Details.
- (b) A cleanout shall be required a minimum of 36 inches from all buildings unless permission to omit or change the location of such cleanout has been received from the City.
- (c) Cleanouts, including those for commercial properties shall be installed at locations designated by the City but in no case shall distance between cleanouts exceed 100 feet.
- (d) A cleanout shall be the same diameter as the pipe down grade to which it connects.
- (e) On long runs of pipe, manholes may be installed, or be required, in lieu of cleanouts.
- (f) Suitable rings and covers of a type designated by the City shall be used for all cleanouts on commercial and multi-family property and such rings shall be cast in a concrete block per the Standard Details.
- (g) All cleanouts shall extend to the ground surface.

(3) Test Tees

A test tee shall be provided at the point of connection to the sewer main and at any other required point or points in order to insure that all portions of the side sewer or private sewer can be tested.

(4) Side Sewer Acceptance

It shall be the responsibility of the side sewer contractor to install all risers, cleanouts, casting, concrete blocks, etc., required before the installation will be approved by the

City.

H. Joint-Use Side Sewer

(1) Pipe Size for Joint Side Sewers

If a side sewer serves two residential structures, 6-inch pipe shall be used from the public or private sewer in the street to each wye at the confluence of the separate side sewers. Six-inch pipe shall be used when crossing a property outside the lot to be served.

(2) Joint Side Sewer Cleanouts

A maximum of two residential structures may be connected to a single side sewer. A 6-inch cleanout extending to within eighteen inches of the ground surface will be required at the wye where the upper connection is made.

(3) Joint-Use Maintenance Easement Agreement

Joint-use maintenance easement agreements are required when a property owner requires service through another property, or when two or more services are provided off of a common side sewer.

I. Connection Requirements

(1) Sewer Taps

Sewer hole-cuts (6-inch minimum diameter) on 8-inch diameter and larger concrete, metallic and clay pipe shall be performed by a qualified coring contractor at the Contractor's expense in the presence of the Inspector. Contact Public Works to schedule an inspection appointment 48 hours in advance (not including weekends and holidays).

Cores shall be made at the 10 o'clock or 2 o'clock positions. The pipe coupon shall be provided to the Inspector. The cored hole shall be free of lips, burrs and other defects that may catch debris. Jagged, non-circular, improperly sized and/or mis-located cores and cracked or otherwise damaged pipe sections shall require that the damaged pipe section be replaced with a PVC tee and mechanical, Romac-style couplings on concrete, metallic and clay pipe, and rigid PVC couplings on PVC pipe. Flexible rubber couplings (e.g., Fernco and Caulder couplings) are not allowed on the sewer main or side sewer.

(2) Connecting Pipe Material

If the type of wye or tee provided in the sewer system does not match the proposed side sewer pipe joint detail, a short transition piece shall be jointed to the wye branch or tee by means of a gasket of the type used in the sewer system where possible. If this gasket type is not available, careful caulking with an approved caulking material made especially for that purpose may be used. The balance of the side sewer shall then be constructed with compression-type flexible gaskets up to the point of connection with the house plumbing.

(3) Tee or Wye Connections

All tee and wye connections must be clean and visible during inspection. The first length of pipe installed at the tee or wye shall not be more than 2-feet long.

(4) Connection to Plumbing

Connection to the house soil pipe shall be made by means of a flexible clamp type coupling or other approved method.

J. Excavations

(1) Measurements Furnished by the City

Excavations shall be made at the measurements furnished by the City for the location of the wye, tee, or side sewer stub.

(2) Main Sewer Check

The licensed side sewer contractor must check the depth of the main sewer at manholes on each side of wye location before starting to excavate for side sewer.

(3) Prospecting For Stub

If the wye, tee, stub, or riser is not located at the measurements as furnished, the contractor shall prospect 4 feet in all directions from the distance and depth given. If such prospecting fails to disclose the stub, the contractor shall immediately contact the City and report the circumstances. Upon receipt of such report, a City representative will promptly visit the site and render further assistance.

K. Laying Pipe

(1) Grade

All sewers shall be laid true to grade with the bell up grade.

(2) Foundation Clearance

Side sewers parallel to the foundation wall of any building shall be laid not less than 30 inches therefrom.

(3) Minimum Cover for Side Sewer

In addition to minimum cover required by 7-03 H:

- (a) Minimum cover for side sewers crossing a ditch in the public way shall be 2'-6", below the bottom of the ditch.
- (b) On private property where less than minimum cover can be maintained, approvals may be obtained from the City for installing by using alternate pipe materials.

- (c) Minimum cover for side sewers at the property line shall be 5 feet.

L. Inspection and Testing

- (1) Covering Work

No trench shall be filled nor any sewer or drain covered until the work has been inspected and approved by the City.

- (2) Test Stubs and Branches

The side sewer contractor must test, by flushing or other means, the existing stub or branch from main to property line to see that it is in operative condition before connecting the side sewer. The contractor will accept responsibility that the existing stub or branch is open and in a usable condition when completed. If the existing stub or branch is not found open and usable, the City must be notified before proceeding with the connection.

M. Special Requirements

- (1) Gap Drains

Where back flush of sand filters of swim pools are required to be disposed of in the sanitary sewer, a gap drain will be required. Diatomaceous earth filter backwash is not allowed to be disposed of in the sanitary sewer.

- (2) Gravity Flow

In any structure in which the plumbing is too low to permit gravity flow to the sewer system or private sewer, the sewage shall be lifted by artificial means and discharged into the sewer system or private sewer. When only the lower floor of a structure is too low for gravity flow, the remaining floors must flow by gravity.

- (3) Pumped Side Sewers

All pump installations must meet all building codes and the current edition of the Uniform Plumbing Code.

All pump systems, check valves, cleanouts, and pipe located outside the public easement or right-of-way shall be privately owned and maintained by the property owner.

- (4) Backwater Valves

Wherever a situation exists involving an unusual danger of backup, such as any structure where the plumbing drain is below the rim of the next upstream manhole, a backwater valve and a holding tank may be required per the current edition of the Uniform Plumbing Code. The effective operation of the backwater sewage valve shall be the responsibility of the owner of the side sewer. Before any installation of this nature is made, the owner will be required to comply with provisions of this regulation concerning the agreement to hold the City harmless from damage or injury.

(5) Sampling Manholes

When required by the City, the property owner shall install and maintain at their expense a manhole in the side sewer to facilitate observation, sampling, and measurement of the wastes therein. Such a manhole shall be located, if feasible, where it is accessible and safely entered from a public street. It shall be constructed and installed in accordance with plans approved by the City and shall be arranged so that flow measuring and sampling equipment and a shutoff gate or a screen may be conveniently installed.

N. Side Sewer Demolition

Any property owner who plans to demolish or remove any structure connected to the public sewer system shall notify the City and obtain a side sewer permit prior to the commencement of such work.

Side sewer demolition shall be performed prior to removal of building foundation. The side sewer for each building shall be excavated and removed from the house connection to the property line or the main as specified by the City. The Contractor shall cap the end of the side sewer to remain in place. Side sewer demolition shall be performed in the presence of the City of North Bend Sewer Maintenance Engineering Technician (inspector). The inspector will inspect the stub to determine whether the side sewer can be reused. If the inspector determines that the side sewer cannot be reused, the property owner shall either abandon the side sewer or upgrade the portion of side sewer on private property through a side sewer permit or through a sewer system extension agreement. The City will be responsible for repair or replacement of the portion of the side sewer located within public rights-of-way and public easements.

When a property is redeveloped, the property owner shall abandon side sewers that are no longer needed. In addition, the property owner shall abandon all unused provisional side sewers within the scope of the redevelopment project. The allowable methods of side sewer abandonment are as follows:

- Cap the side sewer at the main, then abandon side sewer in right-of-way by either removing the pipe, or filling pipe with controlled density fill.
- Install a cured-in-place spot repair liner in the main line to cover the side sewer opening. The spot repair liner shall extend a minimum of one foot upstream and downstream of the edge of the side sewer opening. Fill side sewer pipe to be abandoned with controlled density fill.
- Other trenchless technology proposed by the property owner, subject to City review and approval.
- For single-family sites, the City may allow the property owner to cap the side sewer at the edge of right-of-way.

O. Specifications not Covered by These Regulations

In the event a construction or installation specification relating to side sewers is not covered by this regulation, the City may require compliance with other manuals or standards as it sees fit.

7.07 Lift Stations

A. Objective

This section is intended to present information and provide an outline of the minimum general standards to be accomplished in planning and designing a sewage lift station installation within the City of North Bend service area. The City will only consider a lift station if a gravity system cannot be constructed.

Private pressure lines are not permitted within public right-of-way. If a gravity system is not feasible and a pressure system has been approved, the private pressure lines must discharge into a gravity pipe on private property and gravity flow into the public system with a standard side sewer connection.

The Developer shall submit to the City for review and approval, complete sewage lift station plans and design calculations which provide for the utility building, lift station, electrical service, SCADA controls, and auxiliary generator/transfer switch together with all accessories for a complete, automatically operating installation. The utility building is to be designed and constructed on site to meet local codes and approvals for permanent structures.

Design material and drawings shall provide all civil, mechanical and electrical details and align with all applicable codes and regulations, and good engineering practice.

B. Design Calculations

The Developer shall perform a study and make the determination to assure that the lift station installation is sized to serve the overall sewage flows generated within the potential service area. The flow study shall include the Developer's project boundary area as well as adjacent and future service areas. The service areas shall be the areas that could be served by the installation of the lift station, and as may be further described in the City's Comprehensive Sewer Plan.

The station's design flow capacity shall be based on an average daily per capita flow with related peaking factors and inflow/infiltration allowances, as specified in the City's Comprehensive Sewer Plan.

Documentation of present and future service area flow rates for lift station size and capacity determination shall be provided to the City.

The effects of the minimum flow conditions shall be estimated to ensure that retention of the sewage in the wet well will not create a nuisance and that pumping equipment will not operate too infrequently.

Lift station capacity shall meet the maximum rate of flow expected. At least two pumping units shall be provided at each lift station installation. The pump shall have sufficient capacity and capability to efficiently handle the peak hourly design flow with one pump out of service and to ensure a minimum velocity of 3 feet per second in the force main.

The force main shall be sized for a minimum velocity of 3 feet per second and a maximum of 8 feet per second. The minimum diameter of the force main shall be 6 inches.

The capacity of the receiving gravity sewer shall exceed the flow expected.

Three copies of the Design Report shall be submitted to the City for review. As a minimum, the report shall include:

- (1) Project description
- (2) Projected flows
- (3) Connection point with downstream capacity
- (4) Wet well sizing
- (5) Run time calculation and cycle time
- (6) Pump station head calculation
- (7) Pump selection with pump curves
- (8) Force main size, length and material
- (9) Electrical load study
- (10) Generator sizing
- (11) Odor potential calculations
- (12) Wet well buoyancy calculations
- (13) Force main surge calculations

The Design Report shall be approved by the City prior to starting the design of the lift station.

C. Location and Site Layout

The Developer shall furnish a site layout for the lift station installation.

The lift station shall be located as far as practicable from present or proposed built-up residential areas. Sites for sewage lift stations shall be of sufficient size to accommodate all expected operations and repair and replacement and for future expansion or addition, if applicable.

The easement/dedication for the lift station site shall be submitted to the City for review prior to construction of the lift station. Lift station sites not located within the plat boundary shall be deeded to the City.

The Developer shall coordinate electrical power required to the site with the electrical utility.

As a minimum, the lift station site shall provide for the following:

- (1) Wet well, located outside the pump house with:
 - (a) Concrete pad around top of wet well
 - (b) Locking heavy duty aluminum hatch (H-20 loading)
 - (c) Safety system mount (see standard city detail)
 - (d) Corrosion protection
 - (e) Water level controls, including radar sensor and floats
 - (f) Space and appurtenances for equipment removal and replacement
- (2) Inlet manhole, located upstream of wet well
- (3) Pump House with:
 - (a) Standby power, including automatic transfer switch
 - (b) Electrical equipment

- (c) Convenience receptacles, white, duplex, 20A, GFCI, in cast aluminum weatherproof boxes with full in-service covers, two inside and two outside
 - (d) Alarms and telemetry
 - (e) Control panel
 - (f) Interior and exterior lighting
 - (g) Ventilation
 - (h) Intake and exhaust louvers (with sound attenuation) for the generator
 - (i) Interior floor drain with P-trap, draining to wet well
 - (j) Concrete floor
 - (k) CMU block walls with pitched roof, gutters, and downspouts
 - (l) Steel entry doors
 - (m) Storage areas with shelves and work spaces
- (4) Valve vault, including flow meters, with locking heavy duty aluminum hatch (H-20 loading)
- (5) Odor control, as applicable for location and capacity
- (6) Cuts and fills to provide level site for maintenance
- (7) Cement concrete driveway, minimum width of 15 feet and asphalt pavement or cement concrete for access and maintenance areas
- (8) Site Utilities:
- (a) Drainage
 - (b) One-inch water service with reduced pressure backflow preventer and hose bib. RPBA may be inside pump house, or an above-ground hot box enclosure on concrete. Furnish 50 feet of 3/4-inch heavy-duty rubber hose
 - (c) Electrical service
 - (d) Natural gas meter
 - (e) Telephone or other communication line
- (9) 6-foot-high black powder coated frame and posts together with black vinyl chain link fence with vertical vinyl slats in-laid for screening, enclosing the site with 4-foot-wide access man gate and separate vehicle access gate, 20-foot-wide minimum opening. Install information/address sign on fence, visible from street.
- (10) Landscaping per City requirements.

D. Lift Station

The sewage lift station shall be a complete, pre-designed, package submersible lift station with all components supplied by Romtec Utilities, Inc. (supplier), as approved by the City. The developer shall be responsible for all costs for coordination, station siting and dedication of land, 3-phase electrical service, pre-design, design, review, submittals, permitting, inspections, site work and installation, startup, testing, training, warranties, spare parts, incidentals, and operations and maintenance manuals.

Construction shall be in compliance with OSHA, UL, ASTM, NEC, WAC, and other applicable codes and regulations. The station shall be designed, constructed and anchored to comply with

current IBC standards. All system components shall be factory tested by the manufacturer prior to delivery.

The lift station shall have, as a minimum, two sewage pumps. The pumps shall have sufficient capacity and capability to efficiently handle the peak hourly design flow with one pump and to ensure a minimum velocity of 3 feet per second in the force main. Design calculations and pump curves indicating the same shall be provided with the submittal information.

The sewage lift station supplier shall check the station during installation to determine if the installation is correct. Written confirmation of each visit and recommendations shall be provided to the City.

The sewage lift station supplier shall provide a minimum of 8 hours of training for City personnel at the station site during start-up.

The sewage lift station supplier shall provide four complete copies of maintenance and operation material to the City.

The lift station shall include:

- (1) Concrete wet well & related equipment. Wet well shall be constructed of 4,000 psi reinforced concrete, minimum of 6 feet in diameter, coated inside and outside for corrosion protection. All hardware and piping inside the wet well shall be stainless steel. All joints shall be rubber-gasketed. Each penetration shall be equipped with a Kor-n-Seal connection. The wet well base slab shall be pre-fabricated and self-cleaning. The wet well shall be leak tested. Incoming flows shall be directed to the bottom of the wet well. The wet well hatch shall be H20 rated heavy duty non-slip aluminum, large enough to accommodate pump guide bars, brackets, and lifting chain, a sensor mounting bracket, and precast cable trench. Hatch shall be equipped with lift-assist (hydraulic or spring).
- (2) Submersible pumps, “N-pump” manufactured by Flygt, with flotation pump controls. Pumps shall have stainless steel guide brackets. Pumps shall be furnished with all motors, power cable, pump bases, guide bars and brackets, discharge piping, fittings, anchors, anchor bolts and sleeves, fusion bond epoxy coated RFCA couplings, and other appurtenances as required for complete installation and satisfactory operation. Discharge piping shall be ductile iron.
- (3) Concrete valve vault, with Kor-n-Seal connections. Valve vault shall be equipped with swing check valves, pressure gauges, flow meters, and plug valves for each discharge line, and tee to combine the discharge pipes inside the vault, prior to connection to the force main. All connections shall be restrained. The vault hatch shall be H20 rated heavy duty non-slip aluminum. Vault shall be equipped with a floor drain. A minimum of 12 inches of open working space shall be provided around all pipe connections in the vault.
- (4) Control panel (inside pump house). The City has prepared sealed engineering drawings and specifications for use as electrical/control/telemetry design standards for all developer-constructed sanitary sewer lift stations. The developer’s design team shall acquire the latest version of these documents from the City and revise them according to the specific motor sizes and any optional pieces of equipment, such odor control systems, unit heaters, etc. Specific instructions regarding revisions to the drawings are included

on the drawings. The design engineer for the developer shall complete the title block for each sheet and prepare all necessary design calculations in order to complete and seal the drawings.

- (5) Electrical service, with pump disconnect panel and electrical junction box.
- (6) Odor control. If required, odor control storage tank shall be installed outside pump house, on concrete pad.
- (7) Natural gas fueled auxiliary generator and automatic transfer switch (inside pump house). Generator shall be designed for full station load (e.g., all pumps running together with other station accessories).
- (8) Warranty. The sewage lift station supplier shall provide complete system warranty for 2 years from startup.
- (9) After installation, the station startup shall be performed by the installing contractor under the supervision of the sewage lift station supplier's authorized representative. Startup shall include 2 days of on-site field service: 1 day of full system testing and 1 day of full system training. Services shall include, but not limited to, inspection of the completed package lift station installation to ensure that it has been constructed and performs in accordance with the supplier's instructions and recommendations, supervision of all field-testing and activation of the warranty.

E. Wet Well

(1) General

The wet well shall be precast concrete manhole sections. Joints between precast wall sections shall be confined O-ring or as otherwise approved. The poured in place slab top shall be designed with the wet well to exceed buoyant forces and shall have a cast in place flush mount safety system sleeve per City Standard Detail.

The wet well shall be provided with stainless steel or polypropylene manhole steps as specified for manholes. The wet well shall be checked to ensure all joints are watertight to prevent infiltration and exfiltration of the wet well.

The wet well floor, walls and underside of the top shall be coated to comply with the following:

Surface Preparation: Allow a minimum of 28 days cure time for concrete. Sweep blast to provide a surface profile. Surface shall be clean, dry and free of contaminants.

Exterior Surfaces: The exterior surface of the wet well shall be coated with 30 mils minimum of coal tar epoxy.

Interior Surfaces:

- Filler and Surfacer: Tnemec Series 218 Filler and Surfacer. Applied as needed. After the application of the prime coat, the bugholes and surface

voids shall be filled to ensure that the finish coat is monolithic and pinhole free.

- Finish: Tnemec Series 435 Perma-Glaze Applied in two coats at 15-mils dry film thickness each. Color light gray.
- Total System: 30-mils dry film thickness.

Comply with all conditions of the manufacturer's specifications for preparation and application.

G. Electrical Service/Controls and Telemetry System

The City has prepared sealed engineering drawings and specifications for use as electrical/control/telemetry design standards for all developer-constructed sanitary sewer lift stations. The developer's design team shall acquire the latest version of these documents from the City and revise them according to the specific motor sizes and any optional pieces of equipment, such odor control systems, unit heaters, etc. Specific instructions regarding revisions to the drawings are included on the drawings. The design engineer for the developer shall complete the title block for each sheet and prepare all necessary design calculations in order to complete and seal the drawings.

(1) General

Codes and regulations exist at the federal, state, and local level dictating minimum acceptable requirements for electrical systems. The following standards shall be used as a basis for design and review:

- National Electric Code (NEC)
- Occupational Safety & Health Act (OSHA)
- State & Local Building Codes
- National Electrical Code (NEC)
- National Electrical Manufacturers Association (NEMA)
- Underwriters' Laboratory (UL)
- Insulated Power Conductor Engineering Association (IPCEA)
- American National Standards Institute (ANSI)
- Institute of Electrical & Electronic Engineers (IEEE)

(2) Electrical Service

The local electric utility will be the primary source of electrical power. The Developer shall ascertain proper coordination between the nominal secondary delivery voltage supplied by Puget Sound Energy (PSE) or Tanner Electric Coop and the connection to the lift station equipment. The electrical service shall be 480/277V 4-wire, 3-phase, 60 hertz, with a solid neutral terminal at the disconnect or as may otherwise be required by the local utility. This shall be confirmed with the local utility and confirmed by the suppliers.

All installation shall be approved by the local utility and shall be in conformance with the NEC (current issue) UL, OSHA and County and State electrical codes.

The City shall be furnished with a certificate of final inspection by the inspecting agency.

All wire shall be stranded copper.

All conduit shall be rigid galvanized (RGS). All underground RGS conduits, elbows, and fittings shall be coated with 20 mils (minimum) of PVC coating or a half-lapped wrap of Scotchwrap No. 51. See Detail LS4.

All underground conduits shall be covered with a strip of yellow polyethylene tape placed 6-inches below finished grade and directly above the conduit.

All conduit shall have a minimum of 2 feet of cover.

Instrumentation conduits, elbows and fittings shall be RGS over their entire length.

Heating strips shall be provided for outside electrical enclosures.

H. Standby Power System

(1) General

Standby power generation equipment shall be provided at the lift station site, which will operate the lift station in the event of a commercial power outage.

The standby system shall be designed with capacity and rating to safely start and operate the entire connected lift station load, including all pumps and ancillary loads. All applicable codes shall be followed, including NEC and UPC.

The generator set shall be complete in every respect and shall include, but not be limited to the following:

- (a) Generator, control panel & circuit breaker.
- (b) Engine, radiator and exhaust system.
- (c) Generator set (inside pump house) providing noise attenuation in compliance with Washington State Administrative Code, Chapter 173-60.
- (d) Automatic transfer switch – single electric motor style.
- (e) Block heater.
- (f) Battery and rack.
- (g) Battery charger.
- (h) Conduit, wire and piping.

The generator set and transfer switch shall be a natural gas fueled City approved generator set and transfer switch.

The generator set shall include the following:

Engine

- (a) Single phase, 1500 watt block heater (115 VAC)

Generator Set

- (a) Mainline circuit breaker
- (b) 5-year basic power warranty

Accessories

- (a) Batteries
- (b) Battery Charger, 2 amp, 12 VDC, 120 Vac Input
- (c) Vibration Isolators, Pad Type

Control Panel

- (a) Annunciator relays (12)
- (b) Run relay package (3)
- (c) Low coolant level shutdown
- (d) Anti-condensation space heater, 120 Vac
- (e) Oil temperature gauge
- (f) Wattmeter
- (g) Emergency stop switch

Fuel Systems

- (a) Natural gas unless approved by the City. All piping shall be black iron, except for flexible vibration isolation connections at pipe ends with shut off ball valves.

Alternator

- (a) Anti-condensation heater, 120 Vac

Control Features

- (a) Run-stop-remote switch
- (b) Remote starting, 12-volt, 2 wire
- (c) Coolant temperature gauge
- (d) Field circuit breaker
- (e) DC voltmeter
- (f) Running time meter
- (g) Lamp test switch
- (h) Oil pressure gauge
- (i) Fault reset switch
- (j) Cycle cranking
- (k) 12-light engine monitor with individual 1/2 amp relay signals and a common alarm contact for each of the following conditions:
 - (i) Run (Green Light)
 - (ii) Pre-Warning For Low Oil Pressure (Yellow Light)
 - (iii) Pre-Warning For High Coolant Temp (Yellow Light)
 - (iv) Low Oil Pressure Shutdown (Red Light)
 - (v) High Coolant Temperature Shutdown (Red Light)
 - (vi) Overcrank Shutdown (Red Light)

- (vii) Overspeed Shutdown (Red Light)
- (viii) Switch Off (Flashing Red Light- Indicates Generator Set Not In Automatic Start Mode)
- (ix) Low Coolant Temperature (Yellow Light)
- (x) Two Customer Selected Faults (Red Light)

AC Meter Package

Order with NFPA 110 monitor to meet code requirements.

- (a) AC voltmeter (dual range)
- (b) AC ammeter (dual range)
- (c) Voltmeter/ammeter phase selector switch with an off position
- (d) Dual scale frequency meter/tachometer
- (e) AC Rheostat (panel mounted) for + 5 percent voltage adjust

The transfer switch shall include the following:

- (a) Sized for full station and auxiliary equipment load plus 25 percent.

Pole Configuration

- (a) Poles - 3 (Solid Neutral)

Frequency

- (a) 60 Hertz

Application

- (a) Appl - Utility to Genset

System Options

- (a) Three phase, 3-wire or 4-wire

Listing

- (a) Listing - UL 1008

Programmed Transition

- (a) Program Transition, 1-60 sec.

Applications Modules

- (a) Monitor - Phase Sequence/Balance

Suitable guards shall be provided on all electrical parts to minimize the personal shock hazard.

Generator shall be broken-in sufficiently to permit application of full load immediately upon installation.

Generator supplier shall provide all tools for the generator set as recommended and required by the manufacturer.

Generator installation shall be checked by the supplier after installation to determine that the installation is correct. Written confirmation shall be provided to the City. Generator supplier shall perform a full load test for 2 hours after installation is complete. Provide resistive load bank for this test. Generator supplier shall provide a minimum of 4 hours of training for City personnel at the station site during startup.

Generator manufacturer shall provide four copies of the maintenance and operation manual. These manuals shall be complete and shall include all information necessary to allow City personnel to maintain the generator.

Generator mounting pad shall be reinforced concrete to carry the weight of the unit and shall extend a minimum of 6 inches beyond generator housing. All formed edges to be 1/2 round or 3/4-inch chamfer. A minimum of 2 feet of open spaced shall be provided around all sides of the pad for access and maintenance.

Natural gas line shall be equipped with external fuel shutoff valve.

I. Force Main

- (1) The force main shall be a minimum 6-inch-diameter ductile iron Class 52 polyethylene or epoxy lined; PVC C900/C905 DR 18; or high-density polyethylene (HDPE) if approved by the City and provided with a continual positive slope. There shall be no intermediate high point between the lift station and the force main discharge point, unless properly protected with sewage air and vacuum release assembly. Minimum cover over the force main shall be 4'-0". All pipes (gravity and pressure) entering and leaving the wet well shall have flexible couplings within 18 inches of the structure. Install force main location boxes as required, shown on Detail LS-8.

Discharge of the force main to the gravity sewers shall be made at a manhole with the force main penetration core drilled and the force main aligned to discharge towards the downstream pipe. The invert of the force main shall be 0.1 feet above the invert of the downstream pipe. Channel the manhole as required. The discharge manhole shall be coated for corrosion protection, and equipped with corrosion resistant steps, ladder, and handholds.

A bypass pump connection equipped with a Cam Lock fitting and cap shall be located near the wet well in a location specified by the City, or within the valve vault. See Detail LS-2.

A surge valve shall be installed on the force main to discharge into a manhole or the wet well if high head conditions will occur as determined by the City.

(2) Testing Force Main

(a) Cleaning

All force mains shall be cleaned prior to connection of force main to pumping facilities. Contractor to provide cleaning plan for City review and approval.

(b) Test Specifications

All force mains shall be tested prior to acceptance of work. All pumps, gauges, plugs, saddles, corporation stops, miscellaneous hose and piping, and measuring equipment necessary for performing the test shall be furnished, installed and operated by the Developer. Feed for the pump shall be from a barrel or other container within the actual amount of “makeup” water, so that it can be measured periodically during the test period.

The pipeline shall be backfilled sufficiently to prevent movement of the pipe under pressure. All thrust blocks shall be in place and time allowed for the concrete to cure before testing. Where permanent blocking is not required, the Developer shall furnish and install temporary blocking.

The pipeline shall be subjected to a pressure and leakage test of a minimum of 200 pounds per square inch for a period of not less than 1 hour. The test pressure shall be applied at the low end of the section tested.

Prior to calling for the City to witness the pressure test, the Developer shall first perform a satisfactory pressure test. The allowable leakage rate per thousand feet of each size pipeline is as follows:

Pipe Size	Allowable Leakage
	Gal. per Hour per 1,000 Ft. @ 200 psi
6"	0.64
8"	0.85
10"	1.06
12"	1.28

Defective materials or workmanship, discovered as a result of the tests, shall be replaced by the Developer at the Developer’s expense. Whenever it is necessary to replace defective material or correct the workmanship, the tests shall be rerun at the Developer’s expense until a satisfactory test is obtained.

(c) Preliminary Tests

Developer shall conduct preliminary tests and assure himself that the section to be tested is in an acceptable condition before requesting the City to witness the test.

(d) Thrust Blocks and Anchor Blocks

Fittings shall be “blocked” with poured-in-place concrete, with a firm minimum bearing against an undisturbed earth wall. Timber blocking will not be

permitted. Thrust blocks shall be poured as soon as possible after setting the fittings in place to allow the concrete to “set” before applying the pressure test. The concrete thrust blocks shall be in place and backfilled before beginning the pressure test. Anchor blocks shall be allowed to set sufficiently to develop the necessary bond strength between the reinforcing rods and the concrete anchor before beginning the pressure test. A visqueen barrier shall be provided to protect glands, bolts and other miscellaneous materials required for this type of connection from the concrete. Fittings that must be blocked against an undisturbed earth wall shall be restrained with restrained joint pipe and fittings.

J. Lift Station Test Program

The Developer shall perform, as a minimum, the following tests and provide the City written documentation of the date performed and results obtained. Pump tests shall meet or exceed specified capacity. The City shall be informed of the testing schedule 48 hours prior to the test and shall be present during testing.

- (1) Pump capacity by drawdown test
- (2) Control panel operation
- (3) Generator load test
- (4) Automatic transfer reconciled to auxiliary power and back to utility power
- (5) Telemetry control to terminal strip
- (6) Telemetry control to SCADA system
- (7) Pump vibration analysis

Fill water for testing shall be obtained in accordance with City cross-connection control practices.

APPENDIX 7-1

SEWER STANDARD DETAILS

STANDARD MANHOLE.....	S – 1
TYPE 2 MANHOLE, 72" AND 96"	S – 2
TYPE 3 MANHOLE, 72" AND 96"	S – 3
OUTSIDE DROP STRUCTURE.....	S – 4
SADDLE MANHOLE	S – 5
MANHOLE UNDER 5 FEET DEEP	S – 6
NEW MANHOLE ON EXISTING SEWER.....	S – 7
MANHOLE GRADE ADJUSTMENT	S – 8
MANHOLE SECTION ADJUSTMENT	S – 9
MANHOLE CONE ADJUSTMENT (CONCENTRIC TO ECCENTRIC).....	S – 10
24" LOCKING MANHOLE RING AND COVER.....	S – 11
RESERVED.....	S – 12
SAFETY STEP AND PREFABRICATED LADDER.....	S – 13
TYPICAL TRENCH DETAIL	S – 14
PIPE BEDDING.....	S – 15
CLEANOUT TO GRADE.....	S – 16
SIDE SEWER STUB (ONLY WHERE PLANS DO NOT REQUIRE CLEANOUTS)	S – 17
HOUSE SEWER CONNECTION (WHEN CONNECTING TO EXISTING STUB ONLY).....	S – 18
SIDE SEWER.....	S – 19
SIDE SEWER RELOCATION.....	S – 20
PIPE STAKE ANCHOR ASSEMBLY	S – 21
SOIL CEMENT PIPE ANCHORS	S – 22
CHECK VALVE ASSEMBLY FOR JOINT USE SIDE SEWER (4" TO 8" DIAMETER)	S – 23

SAMPLING TEE	S – 24
100 GALLON BAFFLE TYPE OIL/WATER SEPARATOR	S – 25
450-900 GALLON BAFFLE TYPE OIL/WATER SEPARATOR	S – 26
1100-5000 GALLON BAFFLE TYPE OIL/WATER SEPARATOR	S – 27
GREASE INTERCEPTOR.....	S – 28
RESERVED.....	S – 29
CASING INSTALLATION.....	S – 30
SINGLE HOME SEWER PUMP SYSTEM	S – 31
GRINDER PUMP INSTALLATION DETAIL.....	S – 32A
TYPICAL CIRCUIT DIAGRAM.....	S – 32B
GRINDER PUMP CLEANOUT DETAIL.....	S – 32C
GRINDER PUMP INSTALLATION DETAIL.....	S – 32D
LIFT STATION ELECTRICAL SCHEMATIC 3PHASE, 277Y/480V POWER.....	LS – 1
BYPASS PUMP CONNECTION	LS - 2
RESERVED.....	LS – 3
UNDERGROUND CONDUIT DETAIL	LS – 4
¾” RPBA BACKFLOW ASSEMBLY	LS – 5
VENT DETAIL.....	LS – 6
FLUSH MOUNT SLEEVE	LS – 7
FORCE MAIN LOCATION BOX.....	LS – 8

APPENDIX 7-2

SEWER APPROVED MATERIALS LIST

The following manufacturers have been approved for use for sanitary sewer construction. Where specific manufacturers are listed no other manufacturer may be used without prior approval by the Utility.

DUCTILE IRON PIPE

All manufacturers that meet the performance requirements specified under the material section of the Standards.

DUCTILE IRON FITTINGS

All manufacturers that meet the performance requirements specified under the material section of the Standards.

GALVANIZED IRON PIPE

All manufacturers that meet the performance requirements specified under the material section of the Standards.

JOINT RESTRAINT SYSTEMS

American Ductile Iron Pipe (Flex-Ring)
EBAA Iron (MEGALUG 1100 Series)
EBAA Iron (MEGAFLANGE 2100 Series)
Griffin Pipe Products Company (Snap-Lok, Bolt-Lok)
Pacific States Cast Iron Pipe Co, (Thrust Lock)
Romac (Grip Ring), 600 Series, RomaGrip
Romac (Bell Restraint) 611 with 316SS stainless steel nuts and bolts
Star National Products (Shackle Products) - All rods and hardware shall be 316SS stainless steel.
Cooper B-Line B3373 for PCV – 316SS stainless steel pipe clamps (embedded in concrete blocks)
B3373F for Cast iron, Ductile iron, or C-900 – 316SS stainless steel pipe clamps (embedded in concrete blocks)
US Pipe (TR FLEX)
Uni-Flange Corporation Series 1400, or Series 1450 with 316SS stainless steel nuts and bolts

PIPE CLAMP FOR SEWER SOIL CEMENT PIPE ANCHORS

Cooper B-Line B3373 for PCV– Hot Dipped Galvanized (embedded in Soil Cement)
B3373F for Cast iron, Ductile iron, or C-900 – Hot Dipped Galvanized (embedded in Soil Cement)

COUPLINGS

Romac (400 and 501 Series), Dresser, Smith-Blair (Rockwell), Mueller MaxiFit, Mueller MaxiStep

REPAIR CLAMPS

Romac Industries, Models SS1 and SS2

CASING (COATING FOR STEEL CASING)

Tnemec Hi-Build Tneme-Tar, Series 46H-413

CASING SPACERS

Pipeline Seal and Insulator Co.:

8" band, carbon steel with fusion-bonded coating, Model C8G-2
12" band, carbon steel with fusion-bonded coating, Model C12G-2

Cascade Waterworks Mfg. Co.:

Stainless Steel or hot-dip galvanized carbon steel Casing Spacers (catalog number depends on size)

Advance Products & Systems, Inc.:

8" band, stainless steel, Model SSI8
12" band, stainless steel, Model SSI12

8" band, carbon steel with fusion-bonded coating, Model SI8
12" band, carbon steel with fusion-bonded coating, Model SI12

CASING END SEALS

Pipeline Seal and Insulator Co.:

Standard Pull-on (Model S)
Custom Pull-on (Model C)

Cascade Waterworks Mfg. Co.:

CCES End Seal

Advance Products & Systems, Inc.

Molded End Seal, Model AM

VALVES

All manufacturers that meet the performance requirements specified under the material section of the Standards.

VALVE BOXES

Olympic Foundry Inc.: #VB045 Lid, Top and Base Section

RICH (VanRich Casting Corp.): Top section and lid #045 with RICH Standard Base

Inland Foundry Co., Inc.: Valve Box Paving Riser #2052-3, #2052-4, #2053-5
12-inch Adjusting Sleeve #044A

METER BOXES

6" Cleanout Service	Olympic Foundry SM30
8" Cleanout Service	Olympic Foundry SM30
Valve Chamber	Carson Industries Model #1527-18 BCFXL Meter Box with 1527 Meter Box Cover (formerly Mid-States Plastic Model MSBCF 1324-18 (Substitution for check valve assembly))

PVC PIPE (ASTM D-3034) 4" - 15"

All manufacturers that meet the performance requirements specified under the material section of the Standards.

PVC PIPE (ASTM F-679) 18" - 27"

All manufacturers that meet the performance requirements specified under the material section of the Standards.

PVC PIPE (AWWA C900) 4" - 12"

All manufacturers that meet the performance requirements specified under the material section of the standards.

PVC PIPE (AWWA C905) 14" – 48"

All manufacturers that meet the performance requirements specified under the material section of the Standards.

BUTT-FUSED WELDED HDPE PIPE

All manufacturers that meet the performance requirements specified under the material section of the Standard Specifications.

ABS PIPE AND FITTINGS

All manufacturers that meet the performance requirements specified under the material section of the Standards.

PRECAST MANHOLE SECTIONS

Pacific International Pipe and Engineering, Inc.
Associated Sand and Gravel Company

POLYPROPYLENE MANHOLE STEPS

Lane International Corporation, P-13938
M.A. Industries, Inc., PS-2-PF

MANHOLE FRAMES AND COVERS

Inland Foundry Co.
Olympic Foundry

CLEAN-OUT FRAMES AND COVERS

Inland Foundry Co.
Olympic Foundry

PVC BY CONCRETE MANHOLE ADAPTERS

A.C. x PVC Brant Adapter
Kor-N-Seal Company, Kor-N-Seal Connector
GPK Products, Inc., GPK PVC Manhole Adapter

AWWA C900/C905 FITTINGS AND MANHOLE ADAPTERS

Head Manufacturing (Idaho)
Vassallo (Florida)

OIL/WATER SEPARATORS

100 gallon	Utility Vault Co, Inc, No. 25-SA
450 gallon	Utility Vault Co, Inc, No. 660-SA
750 to 900 gallon	Utility Vault Co, Inc, No. 577-SA
1,100 gallon	Utility Vault Co, Inc, No. 4484-SA
1,500 gallon	Utility Vault Co, Inc, No. 5106-SA
2,200 gallon	Utility Vault Co, Inc, No. 612-SA
3,000 to 4,000 gallon	Utility Vault Co, Inc, No. 712-SA
5,000 gallon	Utility Vault Co, Inc, No. 814-SA

GREASE INTERCEPTORS

Utility Vault Co, Inc., See Standard Detail.

LADDER-UP

Bilco, Model LU-2 (steel safety post, hot dip galvanized)

VAULT HATCH/DOOR AND NON-SLIP TREATMENT

L.W. Products Company, Inc., Models HHD and HHS (H-30 rated locations)
Hatches shall include recessed padlock hasp sized to accept City of North Bend Wastewater Division padlocks.

Metal lids, hatches and access covers shall be constructed with a gray non-slip treatment by one of the approved products below:

<u>Manufacturer</u>	<u>*COF</u>	<u>Product</u>
LW Products	.95	Thermion Arc Metal Spray
SlipNOT Metal Safety Flooring	.99	SlipNOT Grip Plate
IKG Industries	>.80	MEBAC 1 (Metal Bonded Anti-Slip Coatings)
Grating Pacific LLC	.92	ALGRIP Safety Floor Plates

*COF – coefficient of friction as determined by ASTM C1028-89

BACKWATER VALVES

APCO Rubber Flapper Swing Check, 100 Series

MECHANICAL SEWER PLUGS

SIDU Manufacturing Company, Inc.
Sewer Equipment Company of America
SRECO Flexible
Graham Hand Tite (Plastic)

PREFABRICATED PLASTIC MANHOLE CHANNELS

GU Manhole Liners Ltd.

INSIDE DROP CONNECTION FOR RETROFIT AND NEW CONSTRUCTION

Reliner – Duran, Inc. – B-8 and B-10 drop bowels

CONTROLLED DENSITY (FLOWABLE) FILL

Stoneway, CADMAN

RECYCLED CONCRETE (FOR USE AS CRUSHED SURFACING BASE COURSE MATERIAL)

Stoneway Recycling
Renton Recycling (with certification that the material is free of contaminants)

LINK SEAL

Vault wall pipe penetration seals shall be Link Seal Model C-316 (EDPM) with stainless steel hardware.

EXPANSION ANCHOR BOLTS INTO CONCRETE

Expansion anchor bolts shall be wedge style “Power Stud,” “Power Bolt” Hilti KB3-HPG in stainless steel or galvanized steel.

NEOPRENE FOAM PAD (FOR CUSHION BETWEEN ADJACENT PIPES)

Dow Plastics Ethafoam™ 220

APPENDIX 7-3

SEWER STANDARD PLAN NOTES

Sanitary Sewer General Notes:

1. All work shall conform to City of North Bend Public Works Standards and the Developer Extension Agreement.
2. All new manholes shall have a minimum inside diameter of 48 inch and shall conform to the Standard Details.
3. Sanitary sewer pipe shall be PVC conforming to ASTM-D3034 SDR 35 (4"-15") or ASTM F-679 (18"-27"). Bedding and backfill shall be as shown in the Standard Details.
4. Where shown as C900-PVC, the sewer pipe shall have dimension ratio (DR) 18 and conform to AWWA C900 or AWWA C905.
5. All side sewers shall be 6-inch-diameter pipe at a minimum 2 percent slope, unless otherwise noted on the Standard Details.
6. Side sewer stations are referenced from nearest downstream manhole.
7. Lot corners must be set and side sewer locations verified in the field prior to construction.
8. All side sewer stubs shall be capped with a watertight cap and gasket. Cap location shall be marked with a 2 x 4 stake, 12-feet long, with one end buried at depth of the plug invert and extending at least 3 feet vertically out of the ground. The portion of stake above ground shall be painted white and marked with the word "SEWER" and the depth from pipe invert to ground surface. Connect pipe to stake with an 8-gauge wire at or above finished ground level.
9. The locations of all existing utilities shown hereon have been established by field survey or obtained from available records and should therefore be considered approximate only and not necessarily complete. It is the sole responsibility of the contractor to independently verify the accuracy of all utility locations shown, and to further discover and avoid any other utilities not shown hereon which may be affected by the implementation of this plan. The Publics Work Director shall be immediately notified if a conflict exists.
10. All testing and connections to existing mains shall be done in the presence of a representative of the City of North Bend Public Works Department.
11. All trenches shall be compacted, and ATB in place in paved areas, prior to testing sewer lines for acceptance.
12. Side sewer shall be tested for acceptance at the same time the main sewer is tested.
13. Tops of manholes within public rights-of-way shall not be adjusted to final grade until just prior to paving.
14. All manholes in unpaved areas shall include a concrete seal around adjusting rings.

15. Contractor shall adjust all manhole rims to flush with final finished grades, unless otherwise shown.
16. All sewer main extensions within the public right-of-way or in easements must be “staked” by a surveyor licensed in Washington State for “line and grade” and cut sheets provided to the Engineer, prior to starting construction.
17. Contractor shall install, at all connections to existing downstream manholes, screens or plugs to prevent foreign materials from entering existing sanitary sewer system. Screens or plugs shall remain in place throughout the duration of construction and shall be removed along with collected debris at the time of final inspection and in the presence of a representative of the City of North Bend Public Works Department.
18. Surface restoration of existing asphalt pavement shall be as required by the right-of-way use permit.
19. Contractor shall maintain a minimum of 10-feet horizontal separation between all water and sewer lines. Any conflicts shall be reported to the Utility and the Engineer prior to construction.
20. It shall be the Contractor’s responsibility to insure that no conflicts exist between sanitary sewer lines and proposed or existing utilities prior to construction.
21. Minimum cover over sewer pipe shall be five feet, unless otherwise shown.
22. The Contractor shall use a vacuum street sweeper to remove dust and debris from pavement areas as directed by the Engineer. Flushing of streets shall not be permitted without prior City approval.
23. Before commencement of trenching, the Contractor shall provide filter fabric for all downhill storm drain inlets and catch basins that will receive runoff from the project site. The Contractor shall periodically inspect the condition of all filter fabric and replace as necessary. For all construction during the rainy season, downhill basins and inlets must be protected with catch basin inserts. Simply placing filter fabric under the grate is not acceptable.
24. Side sewer demolition shall be performed prior to removal of building foundation. The side sewer for each building shall be excavated and removed from the house connection to the edge of the public right-of-way, or property line. The Contractor shall cap the end of the side sewer to remain in place. Side sewer demolition shall be performed in the presence of a City of North Bend sewer utility representative.
25. Avoid crossing water or sewer mains at highly acute angles. The smallest angle measure between utilities should be 45 to 90 degrees.
26. At points where existing thrust blocking is found, minimum clearance between the concrete blocking and other buried utilities or structures shall be 5 feet.
27. Where new utility line crosses below an existing AC main, the AC pipe shall be replaced with DI pipe to 3 feet past each side of the trench as shown on the standard detail. Alternatively, where directed by the Engineer, the trench shall be backfilled with controlled density fill (CDF, aka

flowable fill) from bottom of trench to bottom of the AC main.

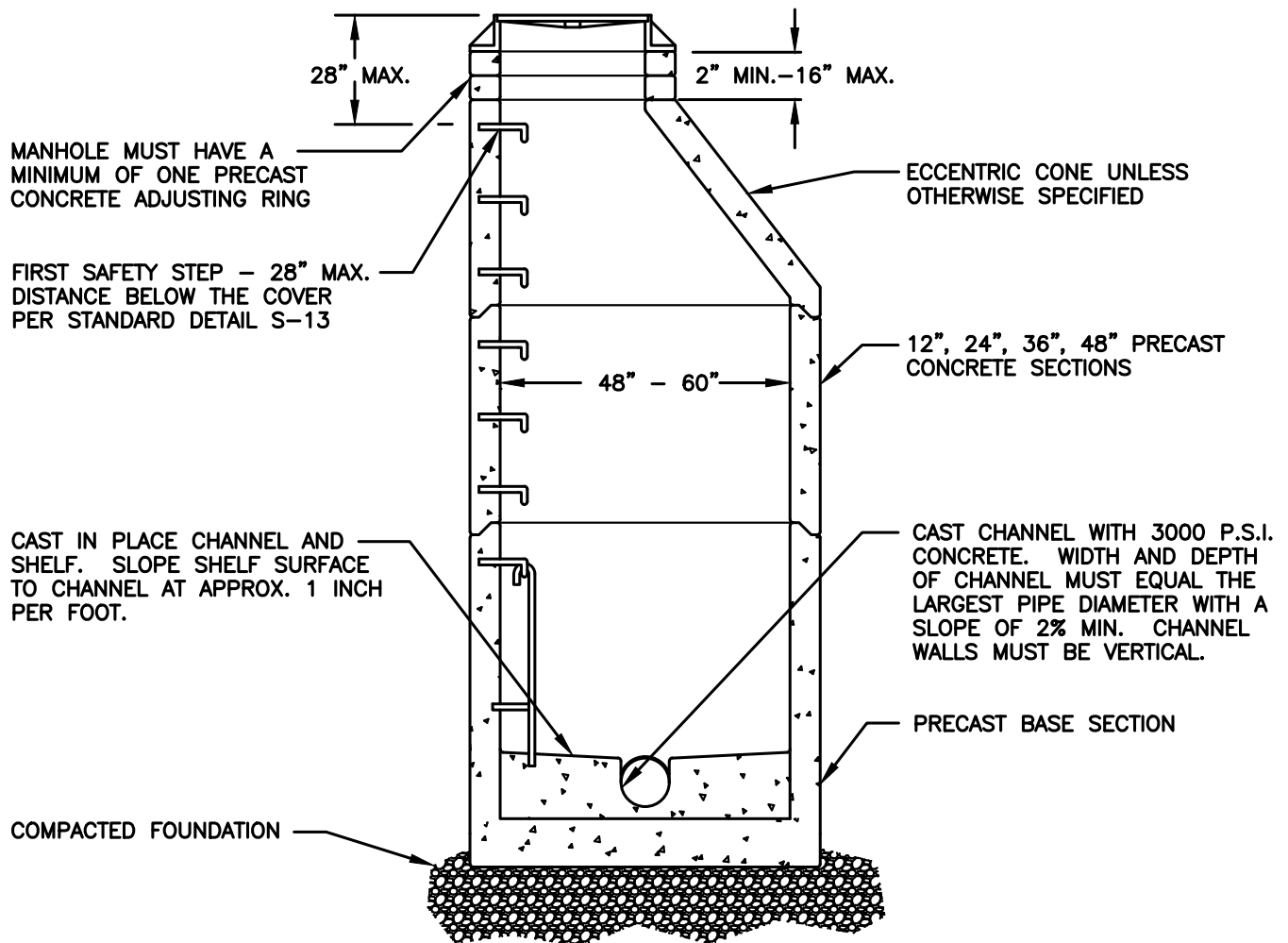
28. Call 1-800-424-5555 or 811 72 hours before construction for utility locations.
29. Manholes, catch basins, and vaults are considered to be permit-required confined spaces. Entry into these spaces shall be in accordance with Chapter 296-809 WAC.
30. The Contractor shall provide color CCTV equipment to include television cameras, a television monitor, cables, power sources, side-launch capable if necessary, and other equipment. Focal distance shall be adjustable through a range from 6 inches to infinity. The CCTV equipment shall include a distance measuring instrument (DMI) to measure the horizontal distance traveled by the camera. The DMI readout shall appear continuously on the video produced by the inspection and shall be accurate to less than 1 percent error over the length of the section of pipeline being inspected. For storm or sanitary sewers, the length is measured from the centerline of the manhole or catch basin to the centerline of the next manhole or catch basin.

The CCTV inspection system shall be performed utilizing one of the following video camera systems:

- Remote-focus stationary lens cameras;
- Rotating lens cameras; or
- Pan-and-tilt cameras.

The camera and television monitor shall produce a minimum (480 lines-per-inch) resolution. The contractor shall inspect the pipeline during optimum low-flow level conditions, as pre-approved by the Utility Inspector. The contractor shall coordinate with the Utility Inspector prior to video inspection. The television camera utilized shall be specifically designed and constructed for sewer inspection. All video inspections shall be recorded in .mpg file format on a disk (either external hard drive, thumb drive or DVD). The video shall be taken after installation, cleaning, and pressure test to insure that no defections exist. The project will not be accepted until all defects have been repaired.

31. When work is to occur in easements, the Contractor shall notify the easement grantor and North Bend Public Works in writing a minimum of 48 hours in advance of beginning work (not including weekends or holidays). Failure to notify grantor and North Bend Public Works will result in a Stop Work Order being posted until the matter is resolved to the satisfaction of North Bend Public Works. A written release from the easement grantor shall be furnished to the Utilities Inspector prior to permit signoff.
32. The Contractor shall restore the Right-of-Way and existing public sewer easement(s) after construction to a condition equal or better than condition prior to entry. The Contractor shall furnish a signed release from all affected property owners after restoration has been completed.



GENERAL NOTES - APPLIES TO ALL MANHOLES:

1. PRECAST SECTIONS SHALL BE REINFORCED PER ASTM SPECS FOR CORRESPONDING SEWER PIPE.
2. POLYPROPYLENE SAFETY STEPS SHALL BE PER STANDARD DETAIL S-13.
3. ALL HOLES FOR PIPE SHALL BE BLOCKED OUT AT THE TIME OF CASTING THE SECTION.
4. ALL MANHOLE SECTIONS SHALL BE FURNISHED WITH RUBBER GASKET JOINT PER ASTM C-478 AND ASTM C-443.
5. MANHOLES OVER 10' DEEP SHALL BE FURNISHED WITH A MIN. WALL THICKNESS OF 5".
6. MANHOLE DIAMETER IN ACCORDANCE WITH CITY OF NORTH BEND STANDARDS.
7. WHERE AWWA C900 PVC PIPE IS USED, CONNECTION SHALL BE MADE WITH PVC MANHOLE ADAPTER SIZED FOR THE O.D. OF AWWA C900 PVC PIPE. ADAPTER LENGTH SHALL MATCH OR EXCEED THE MANHOLE SECTION WALL THICKNESS.
8. GROUT ALL JOINTS INSIDE, OUTSIDE AND IN BETWEEN TO ACHIEVE WATERTIGHT CONSTRUCTION. FINISH SMOOTH THE INSIDE OF STRUCTURE. USE NON-SHRINK GROUT ONLY.
9. WHERE STANDARD MANHOLE CANNOT BE INSTALLED, THE CUSTOM MANHOLE SHALL BE DETAILED ON THE CONSTRUCTION PLANS.
10. PIPE CONNECTION TO MANHOLE: KOR-N-SEAL OR EQUAL FOR CORE-DRILLED SECTIONS, OR SAND COLLAR FOR SECTIONS WITH KNOCKOUTS. WITH ENGINEER AND CITY OF NORTH BEND APPROVAL.



CITY OF NORTH BEND

STANDARD MANHOLE

APPROVED:

MARK RIGOS, P.E.

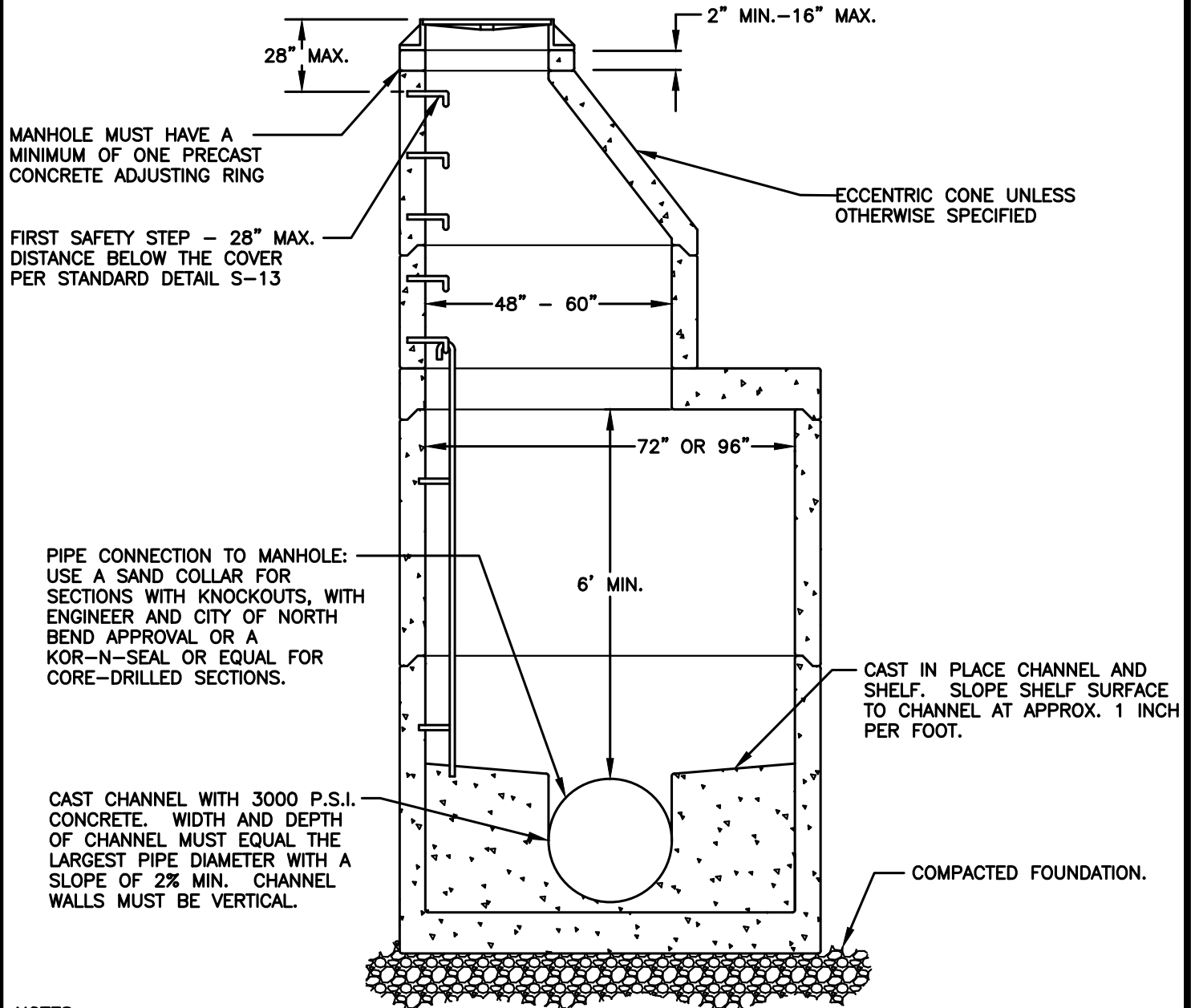
BY CITY

MAY 2018

DATE

DWG. NO.

S-1

**NOTES:**

1. MANHOLE SHALL CONFORM TO THE GENERAL NOTES AND ALL APPLICABLE REQUIREMENTS OF STANDARD DETAIL S-1.
2. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
3. PRECAST BASES SHALL BE FURNISHED WITH KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2" MINIMUM. UNUSED KNOCKOUTS DO NOT NEED TO BE GROUTED IF LEFT IN INTACT. PIPE SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS CORE-DRILLED HOLES ARE APPROVED BY THE CITY.
4. KNOCKOUT OR CORE-DRILLED HOLES SHALL EQUAL THE PIPE OUTSIDE DIAMETER PLUS MANHOLE WALL THICKNESS. MINIMUM DISTANCE BETWEEN HOLES SHALL BE 12".
5. FOR HEIGHTS OF 12' OR LESS, MINIMUM SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT. FOR HEIGHTS OVER 12', MINIMUM SOIL BEARING VALUE SHALL EQUAL 3,800 POUNDS PER SQUARE FOOT.
6. GROUT ALL JOINTS INSIDE, OUTSIDE AND IN BETWEEN TO ACHIEVE WATERTIGHT CONSTRUCTION. FINISH SMOOTH THE INSIDE OF STRUCTURE. USE NON-SHRINK GROUT ONLY.

**CITY OF NORTH BEND****TYPE 2 MANHOLE
72" AND 96"**

APPROVED:

MARK RIGOS, P.E.

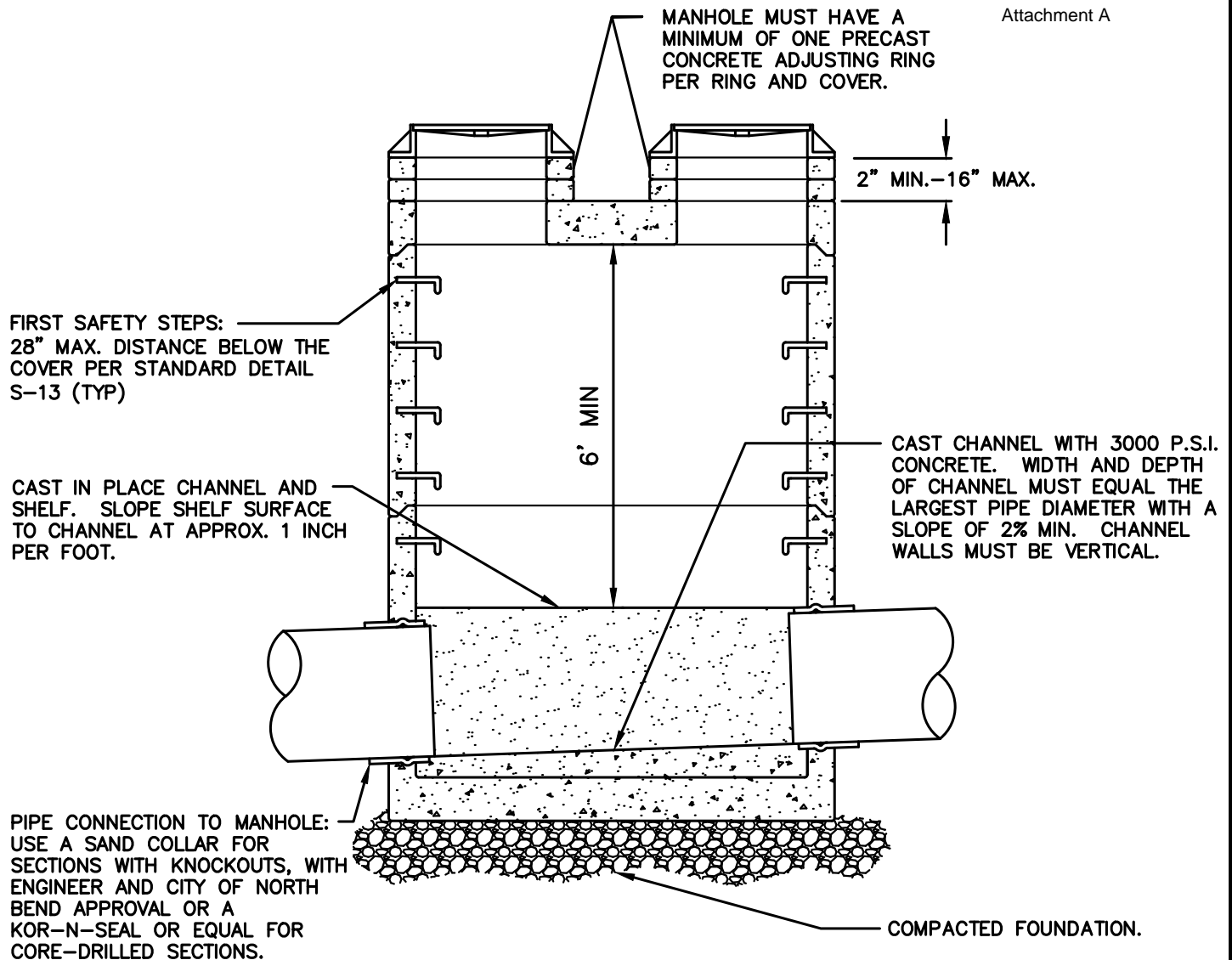
BY CITY

MAY 2018

DATE

DWG. NO.

S-2

**NOTES:**

1. MANHOLE SHALL CONFORM TO THE GENERAL NOTES AND ALL APPLICABLE REQUIREMENTS OF STANDARD DETAIL S-1.
2. PROVIDE TWO 24" RING AND COVERS, ONE LOCATED OVER THE MAJOR INCOMING AND OUTGOING PIPES.
3. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
4. PRECAST BASES SHALL BE FURNISHED WITH KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2" MINIMUM. UNUSED KNOCKOUTS DO NOT NEED TO BE GROUTED IF LEFT IN INTACT. PIPE SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS CORE-DRILLED HOLES ARE APPROVED BY THE CITY.
5. KNOCKOUT OR CORE-DRILLED HOLES SHALL EQUAL THE PIPE OUTSIDE DIAMETER PLUS MANHOLE WALL THICKNESS. MINIMUM DISTANCE BETWEEN HOLES SHALL BE 12".
6. FOR HEIGHTS OF 12' OR LESS, MINIMUM SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT. FOR HEIGHTS OVER 12', MINIMUM SOIL BEARING VALUE SHALL EQUAL 3,800 POUNDS PER SQUARE FOOT.
7. GROUT ALL JOINTS INSIDE, OUTSIDE AND IN BETWEEN TO ACHIEVE WATERTIGHT CONSTRUCTION. FINISH SMOOTH THE INSIDE OF STRUCTURE. USE NON-SHRINK GROUT ONLY.

**CITY OF NORTH BEND**

TYPE 3 MANHOLE
72" AND 96"

APPROVED:

MARK RIGOS, P.E.

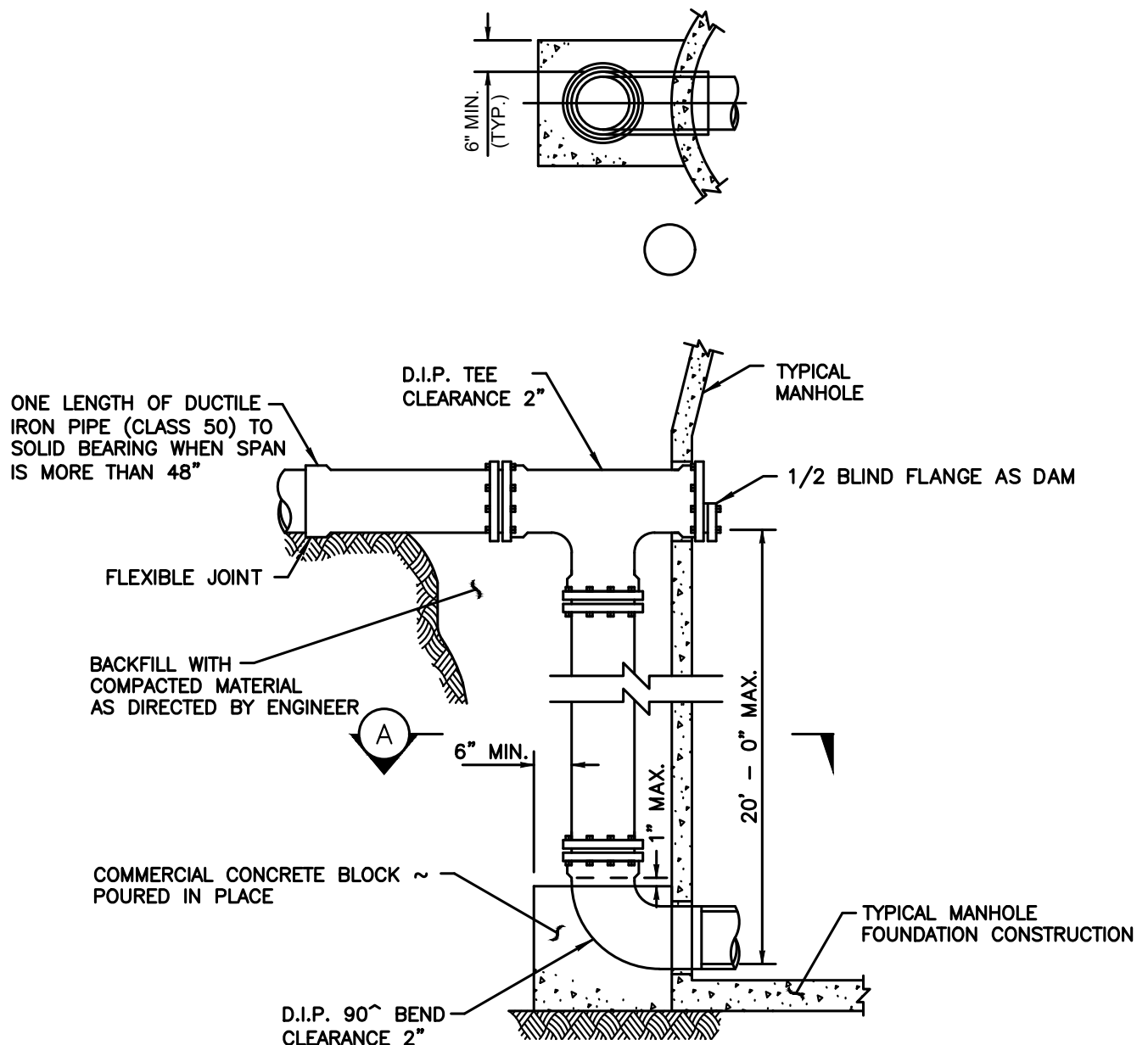
BY CITY

MAY 2018

DATE

DWG. NO.

S-3

**NOTES:**

1. OUTSIDE DROP STRUCTURES SHALL BE INSTALLED ONLY WHERE APPROVED BY THE CITY. MANHOLE SHALL CONFORM TO GENERAL NOTES AND ALL APPLICABLE REQUIREMENTS OF STANDARD DETAIL S-1.
2. OUTSIDE DROP SHALL BE CONSTRUCTED USING CLASS 50 DI PIPE AND FLANGED DI FITTINGS.
3. CHANNEL BASE WITH 3000 PSI CONCRETE. WIDTH AND DEPTH OF CHANNEL MUST EQUAL THE LARGEST PIPE DIAMETER WITH A SLOPE OF 2% MIN. CHANNEL WALLS MUST BE VERTICAL. SLOPE SHELF TO CHANNEL AT 1" PER FOOT MIN.
4. CORE DRILL OPENINGS FOR NEW PIPE WHEN DROP IS INSTALLED ON EXISTING MANHOLE. USE KOR-N-SEAL CONNECTORS OR EQUAL.



CITY OF NORTH BEND

OUTSIDE DROP STRUCTURE

APPROVED:

MARK RIGOS, P.E.

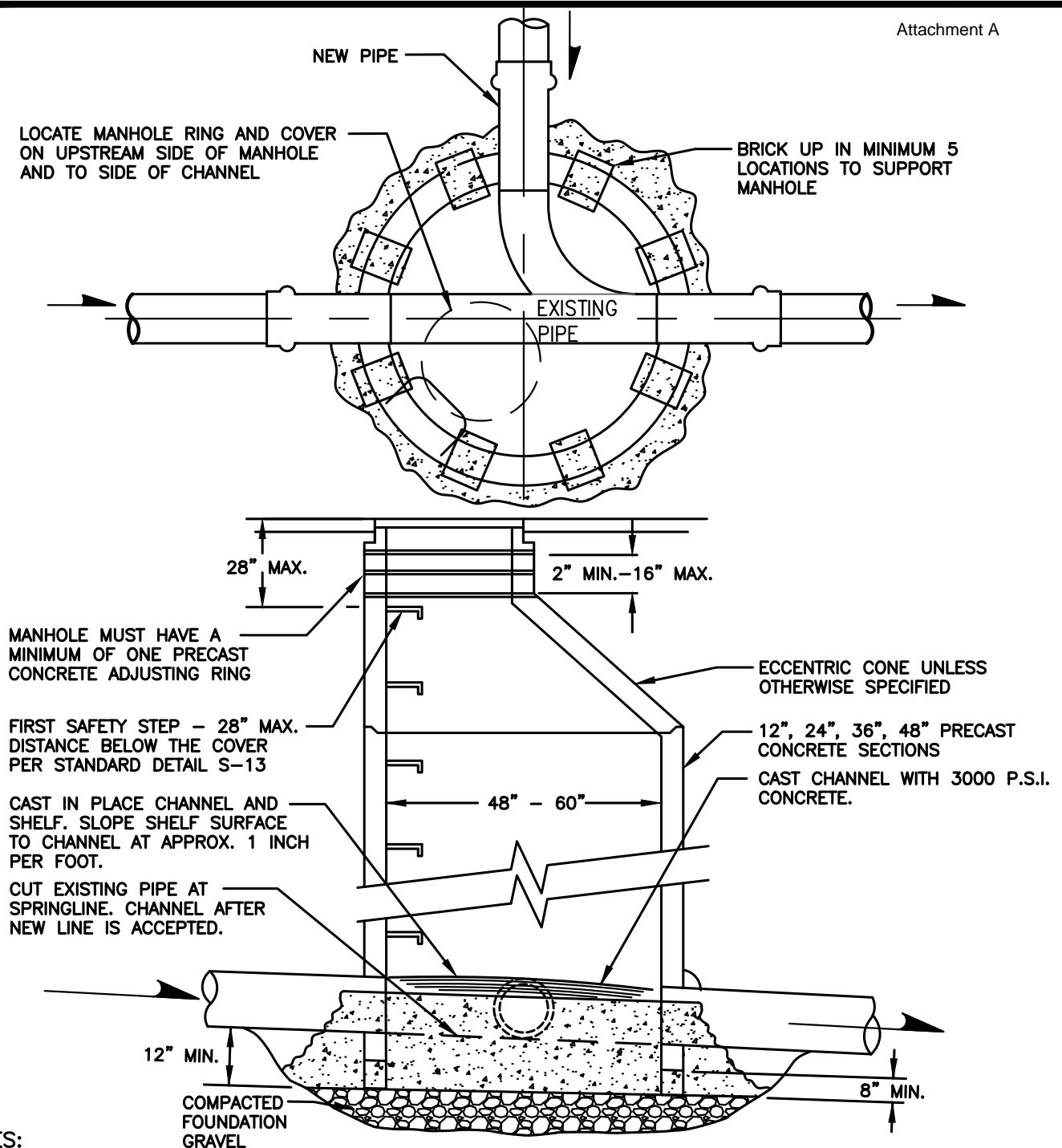
BY CITY

MAY 2018

DATE

DWG. NO.

S-4

**NOTES:**

1. MANHOLE SHALL CONFORM TO THE GENERAL NOTES AND ALL APPLICABLE REQUIREMENTS OF STANDARD DETAIL S-1.
2. THE ENTRY ANGLE OF THE NEW SEWER CONNECTION, RELATIVE TO THE EXISTING SEWER MAIN INLET, SHALL BE 90 DEGREES OR LESS.
3. IF NEW SEWER CONNECTION IS A MAINLINE, THE INVERT OF THE NEW PIPE SHALL BE SET AT THE SPRINGLINE OF THE EXISTING MAINLINE.
4. IF NEW SEWER CONNECTION IS A SIDE SEWER, THE INVERT OF THE NEW PIPE SHALL BE SET AT OR ABOVE THE CROWN OF THE EXISTING MAINLINE NEW CONNECTION NOT TO EXCEED 18" ABOVE THE MAINLINE INVERT.
5. PVC PIPE CONNECTION TO MANHOLE: KOR-N-SEAL OR EQUAL FOR CORE-DRILLED SECTIONS, OR SAND COLLAR FOR SECTIONS WITH KNOCKOUTS, WITH ENGINEER OR CITY OF NORTH BEND APPROVAL.
6. GROUT ALL JOINTS INSIDE, OUTSIDE AND IN BETWEEN TO ACHIEVE WATERTIGHT CONSTRUCTION. FINISH SMOOTH THE INSIDE OF STRUCTURE. USE NON-SHRINK GROUT ONLY.



CITY OF NORTH BEND

SADDLE MANHOLE

APPROVED:

MARK RIGOS, P.E.

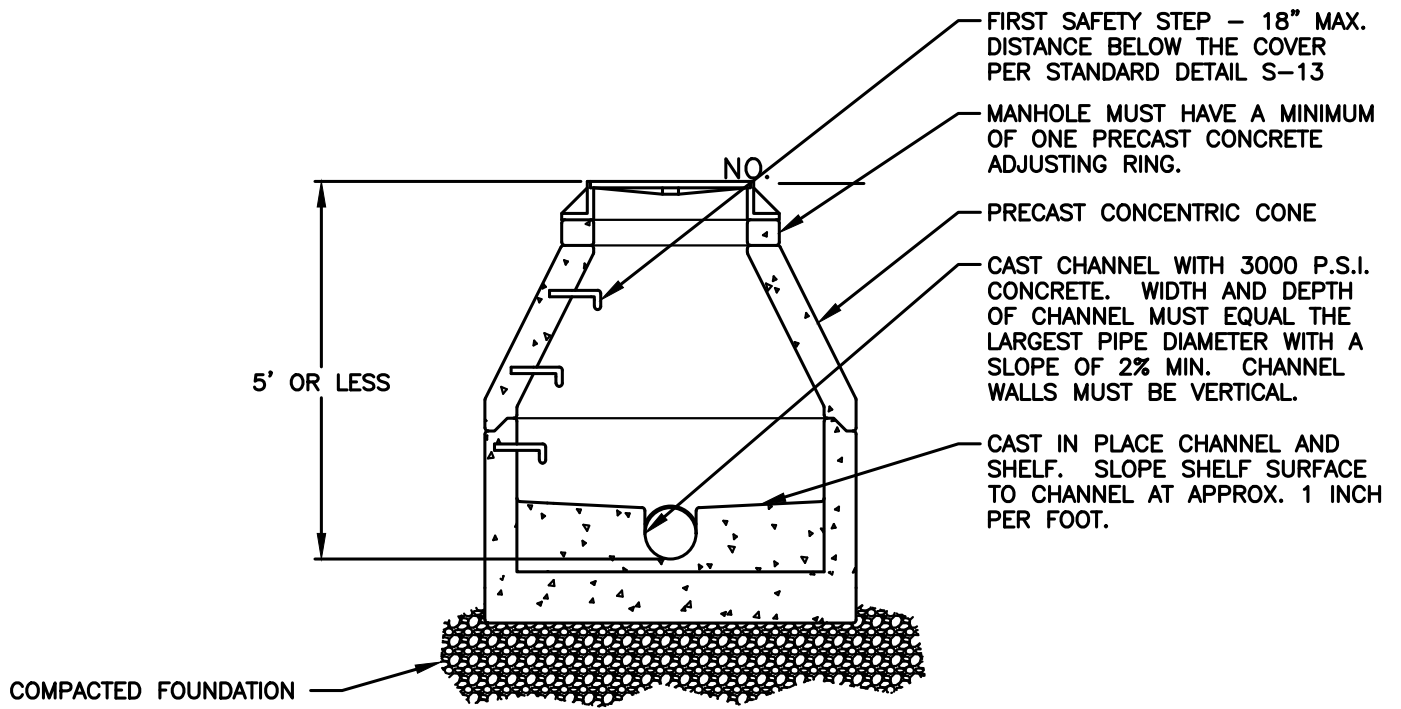
BY CITY

MAY 2018

DATE

DWG. NO.

S-5

**NOTES:**

1. MANHOLE SHALL CONFORM TO THE GENERAL NOTES AND ALL APPLICABLE REQUIREMENTS OF STANDARD DETAIL S-1.
2. PIPE CONNECTION TO MANHOLE: KOR-N-SEAL OR EQUAL FOR CORE-DRILLED SECTIONS, OR SAND COLLAR FOR SECTIONS WITH KNOCKOUTS, WITH ENGINEER AND CITY OF NORTH BEND APPROVAL.
3. GROUT ALL JOINTS INSIDE, OUTSIDE AND IN BETWEEN TO ACHIEVE WATERTIGHT CONSTRUCTION. FINISH SMOOTH THE INSIDE OF STRUCTURE. USE NON-SHRINK GROUT ONLY.



CITY OF NORTH BEND

MANHOLE UNDER 5 FEET DEEP

APPROVED:

MARK RIGOS, P.E.

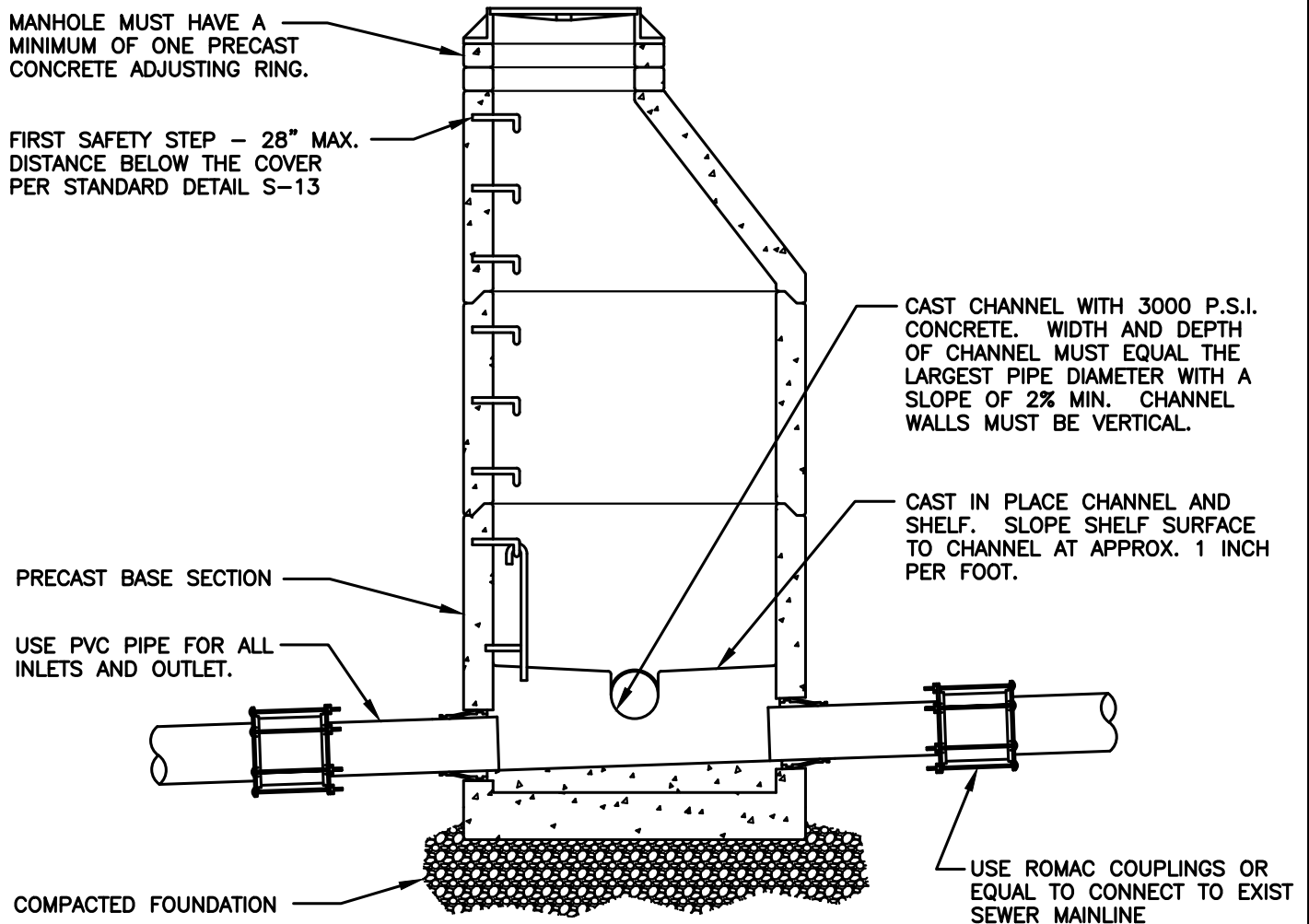
BY CITY

MAY 2018

DATE

DWG. NO.

S-6

**NOTES:**

1. MANHOLE SHALL CONFORM TO THE GENERAL NOTES AND ALL APPLICABLE REQUIREMENTS OF STANDARD DETAIL S-1
2. THE ENTRY ANGLE OF THE NEW SEWER CONNECTION, RELATIVE TO THE EXISTING SEWER MAIN INLET, SHALL BE 90 DEGREES OR LESS.
3. IF NEW SEWER CONNECTION IS A MAINLINE, THE INVERT OF THE NEW PIPE SHALL BE SET AT THE SPRINGLINE OF THE EXISTING MAINLINE.
4. IF NEW SEWER CONNECTION IS A SIDE SEWER, THE INVERT OF THE NEW PIPE SHALL BE SET AT OR ABOVE THE CROWN OF THE EXISTING MAINLINE. NEW CONNECTION NOT TO EXCEED 18" ABOVE THE MAINLINE INVERT.
5. PVC PIPE CONNECTION TO MANHOLE: KOR-N-SEAL OR EQUAL FOR CORE-DRILLED SECTIONS, OR SAND COLLAR FOR SECTIONS WITH KNOCKOUTS, WITH ENGINEER AND CITY OF NORTH BEND APPROVAL.
6. GROUT ALL JOINTS INSIDE, OUTSIDE AND IN BETWEEN TO ACHIEVE WATERTIGHT CONSTRUCTION. FINISH SMOOTH THE INSIDE OF STRUCTURE. USE NON-SHRINK GROUT ONLY.

**CITY OF NORTH BEND****NEW MANHOLE ON
EXISTING SEWER**

APPROVED:

MARK RIGOS, P.E.

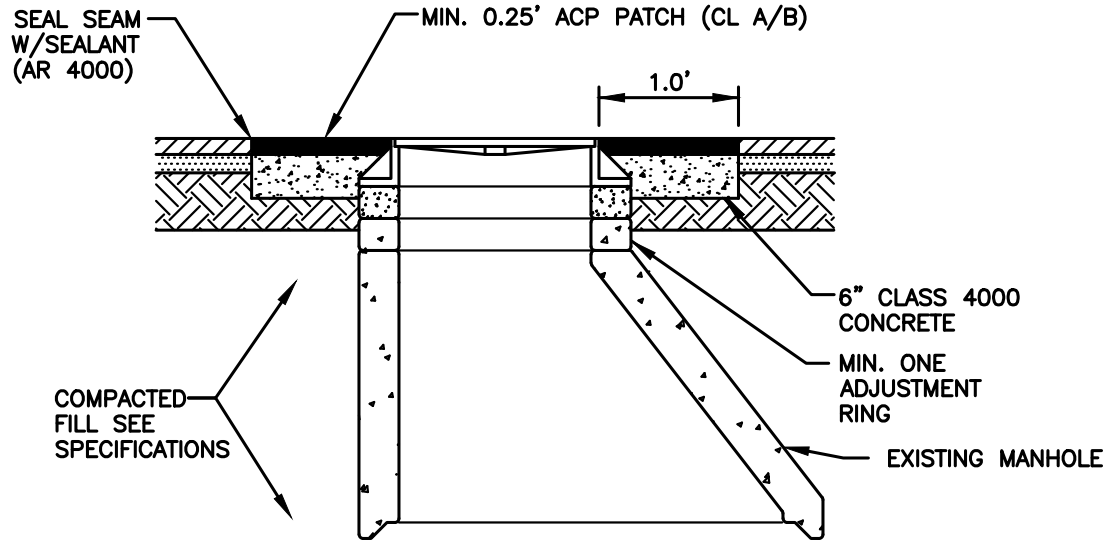
BY CITY

MAY 2018

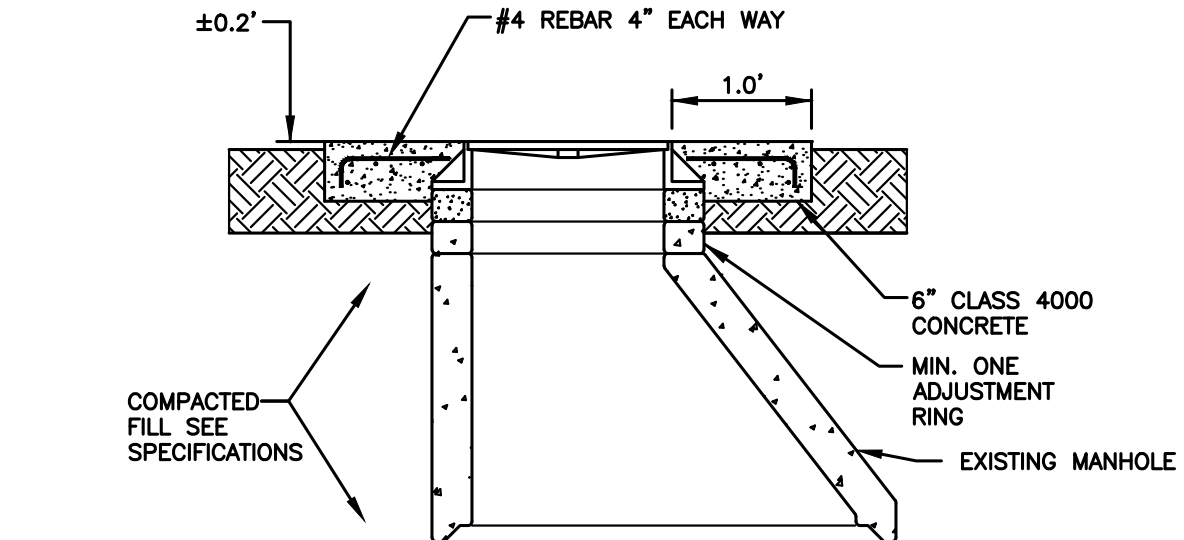
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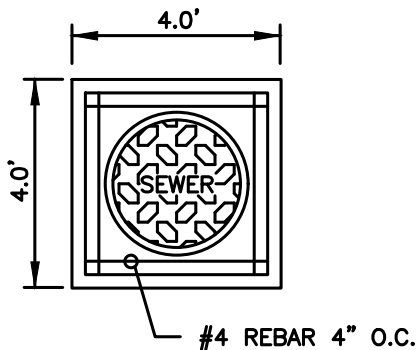
S-7



MANHOLE IN ASPHALT



MANHOLE OUTSIDE ASPHALT



NOTES:

1. ON MANHOLE OUTSIDE ASPHALT ADD REINFORCING STEEL AS SHOWN ABOVE. DEFORMED BAR TO MEET ASTM A615 GRADE 60.
2. ON MANHOLE OUTSIDE PAVED AREAS, CONCRETE COLLAR TO BE 4' x 4' SQUARE.



CITY OF NORTH BEND

MANHOLE GRADE ADJUSTMENT

APPROVED:

MARK RIGOS, P.E.

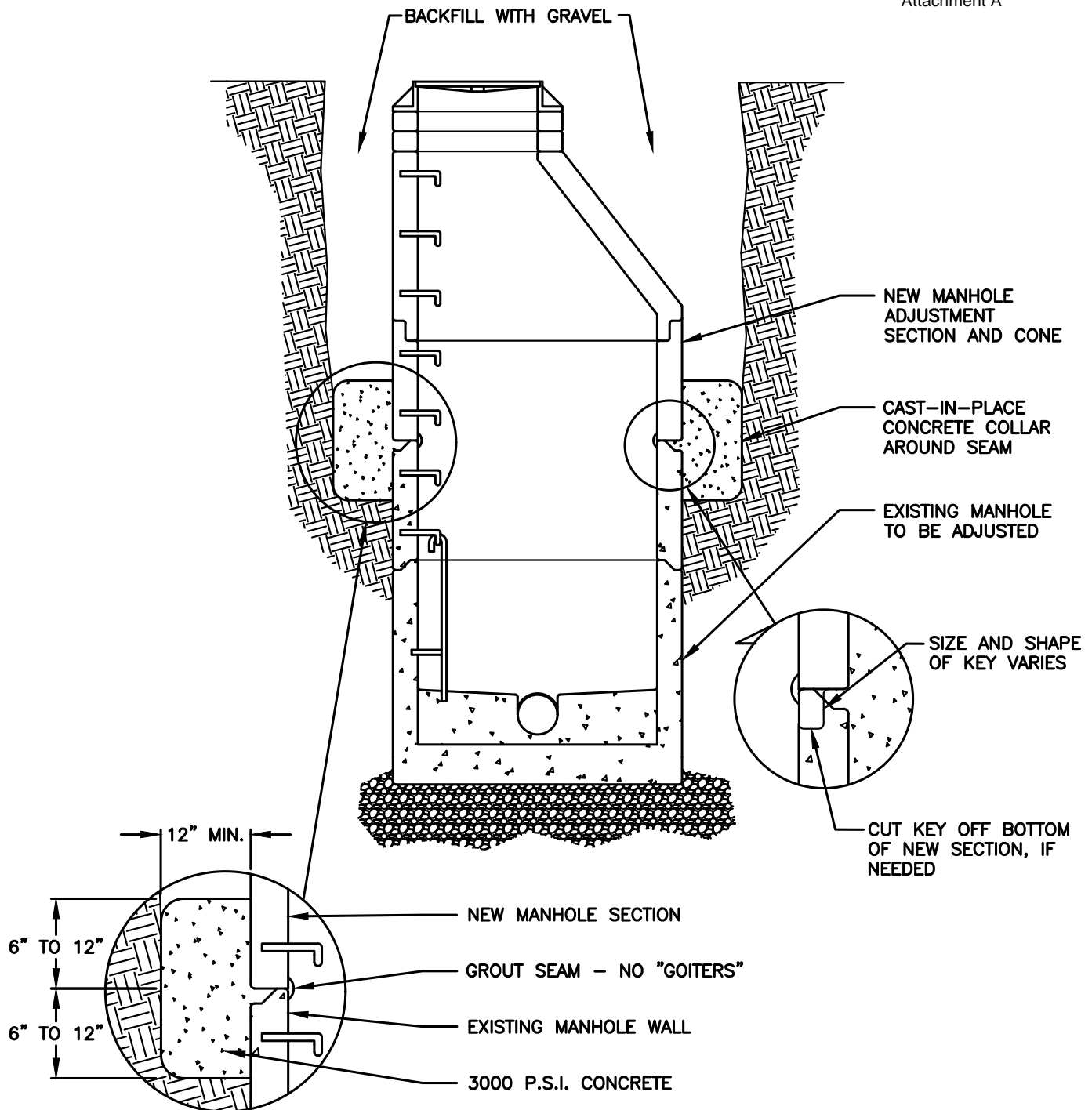
BY CITY

MAY 2018

DATE

DWG. NO.

S-8

**NOTES:**

1. MANHOLE SHALL CONFORM TO THE GENERAL NOTES AND ALL APPLICABLE REQUIREMENTS OF STANDARD DETAIL S-1.
2. WHERE DEPTH OF MANHOLE NECK EXCEEDS 24", ADJUST MANHOLE TO GRADE BY INSTALLING NEW MANHOLE BARREL SECTION AND CONE ON EXISTING MANHOLE BARREL.
3. WHERE KEY SECTIONS OF NEW AND EXISTING MANHOLES ARE NOT COMPATIBLE, CUT KEY OFF BOTTOM OF NEW SECTION AND PROVIDE A CAST-IN-PLACE CONCRETE COLLAR AROUND MANHOLE PERIMETER. CAST COLLAR WITH 3000 P.S.I CONCRETE.
4. GROUT ALL JOINTS INSIDE, OUTSIDE AND IN BETWEEN TO ACHIEVE WATERTIGHT CONSTRUCTION. FINISH SMOOTH THE INSIDE OF STRUCTURE. USE NON-SHRINK GROUT ONLY.



CITY OF NORTH BEND

MANHOLE SECTION ADJUSTMENT

APPROVED:

MARK RIGOS, P.E.

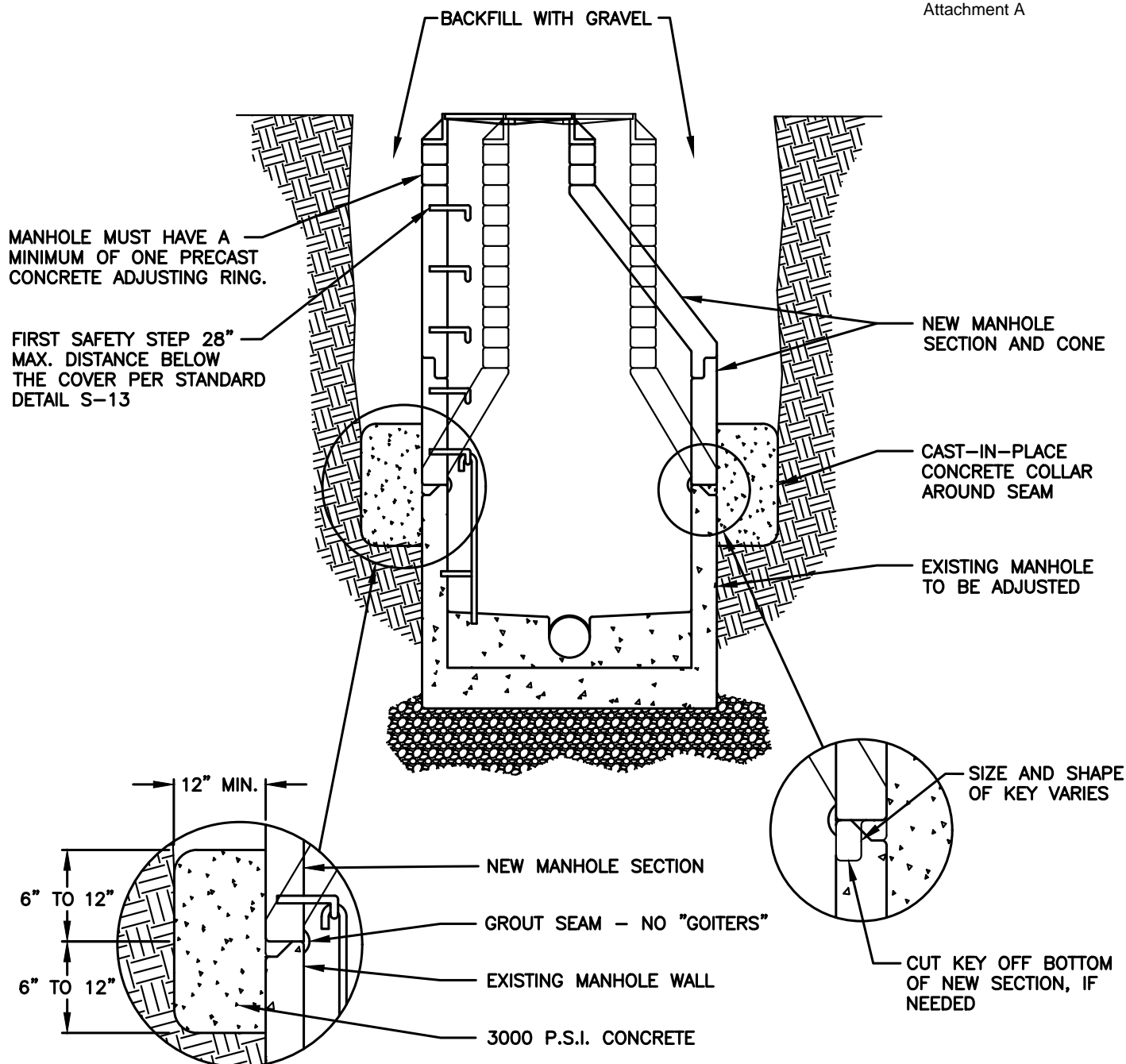
BY CITY

MAY 2018

DATE

DWG. NO.

S-9

**NOTES:**

1. MANHOLE SHALL CONFORM TO THE GENERAL NOTES AND ALL APPLICABLE REQUIREMENTS OF STANDARD DETAIL S-1.
2. WHERE DEPTH OF MANHOLE WITH CONCENTRIC CONE EXCEEDS 5 FEET, ADJUST MANHOLE TO GRADE BY INSTALLING NEW ECCENTRIC CONE AND BARREL SECTION ON EXISTING MANHOLE BASE SECTION
3. WHERE KEY SECTIONS OF NEW AND EXISTING MANHOLES ARE NOT COMPATIBLE, CUT KEY OFF BOTTOM OF NEW SECTION AND PROVIDE A CAST-IN-PLACE CONCRETE COLLAR AROUND MANHOLE PERIMETER. CAST COLLAR WITH 3000 P.S.I. CONCRETE.
4. SAFETY STEPS IN PRECAST BASE SECTION MAY BE CAST IN PLACE OR A PREFABRICATED LADDER GROUTED OR BOLTED IN PLACE. SEE STANDARD DETAIL S-13.
5. GROUT ALL JOINTS INSIDE, OUTSIDE AND IN BETWEEN TO ACHIEVE WATERTIGHT CONSTRUCTION. FINISH SMOOTH THE INSIDE OF STRUCTURE. USE NON-SHRINK GROUT ONLY.



CITY OF NORTH BEND

MANHOLE CONE ADJUSTMENT
(CONCENTRIC TO ECCENTRIC)

APPROVED:

MARK RIGOS, P.E.

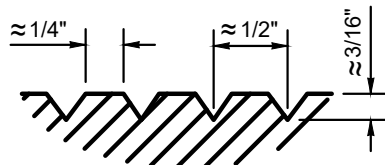
BY CITY

MAY 2018

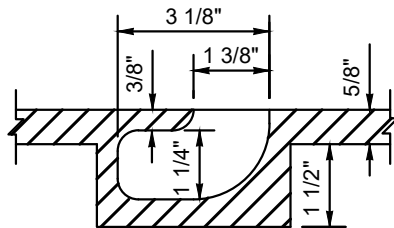
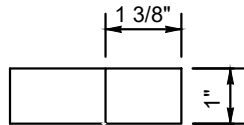
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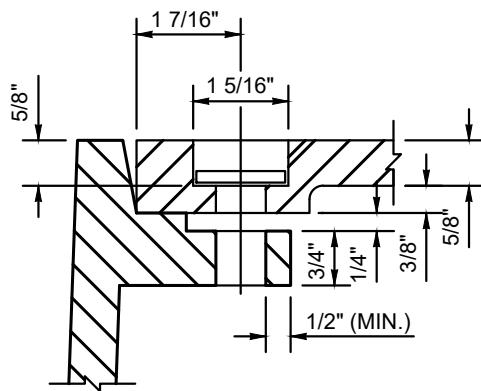
S-10



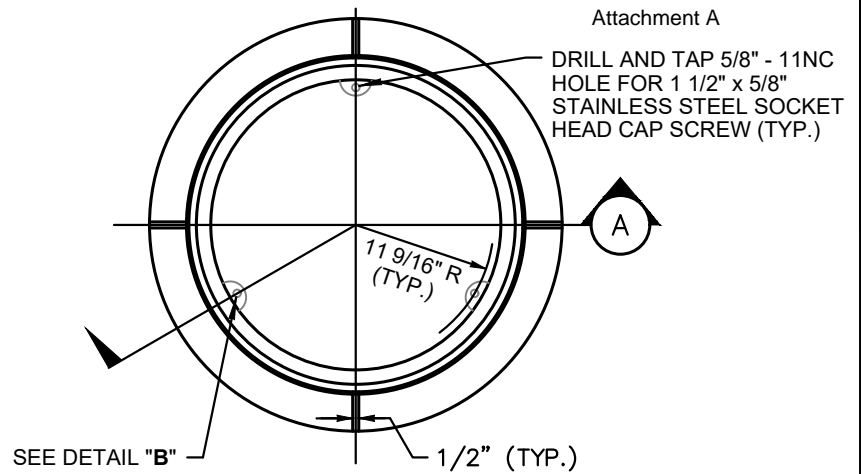
**SKID GROOVE PATTERN
DETAIL**



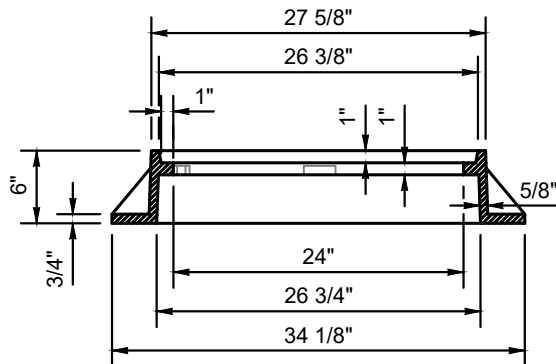
**BLIND PICK NOTCH
DETAIL "A"**



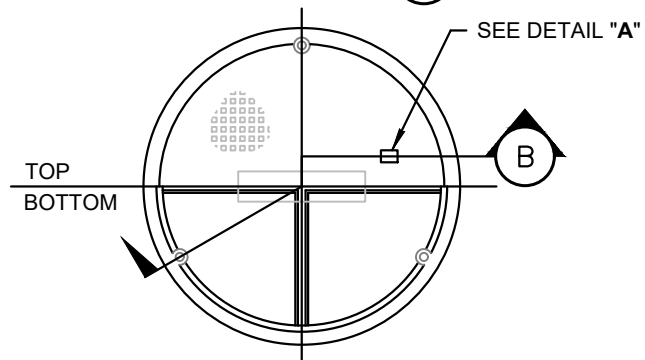
**BOLT-DOWN
DETAIL "B"**



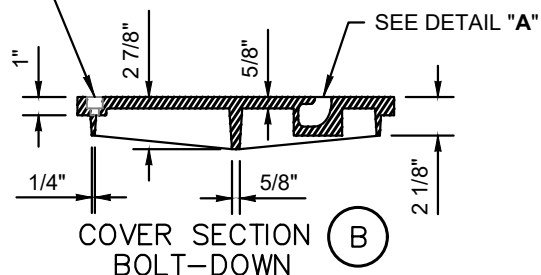
RING PLAN



RING SECTION (A)



COVER PLAN



**COVER SECTION (B)
BOLT-DOWN**

NOTES:

1. COVER SHALL HAVE THE WORD "SEWER" CAST IN 3" RAISED LETTERS.
2. ONLY FOR USE IN PUBLIC RIGHT-OF-WAY (PAVED AREAS AND SIDEWALKS).
3. RING AND COVER SHALL BE RATED HS-20.
4. RING AND COVER MATERIAL IS DUCTILE IRON, ASTM A536 - GRADE 80-55-06 OR CAST IRON, ASTM A30 - CLASS 25.
5. OLYMPIC FOUNDRY MH30A, OR EQUAL.
6. DUCTILE OR CAST COVER SHALL HAVE MINIMUM WEIGHT OF 150 LBS.
7. DUCTILE OR CAST RING SHALL HAVE MINIMUM WEIGHT OF 210 LBS.
8. ALL LIDS TO BE LOCKING UNLESS APPROVED OTHERWISE BY CITY OF NORTH BEND.
9. PROVIDE A BLIND PICK NOTCH FOR ALL SEWER LIDS, OPEN HOLES ARE NOT PERMITTED.



CITY OF NORTH BEND

**24" LOCKING MANHOLE
RING AND COVER**

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

S-11



CITY OF NORTH BEND

RESERVED

APPROVED:

MARK RIGOS, P.E.

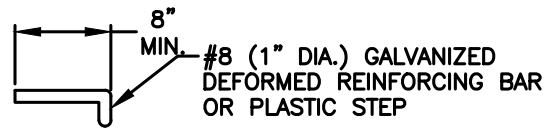
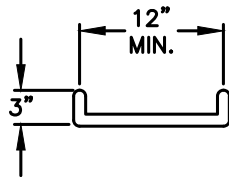
BY CITY

MAY 2018

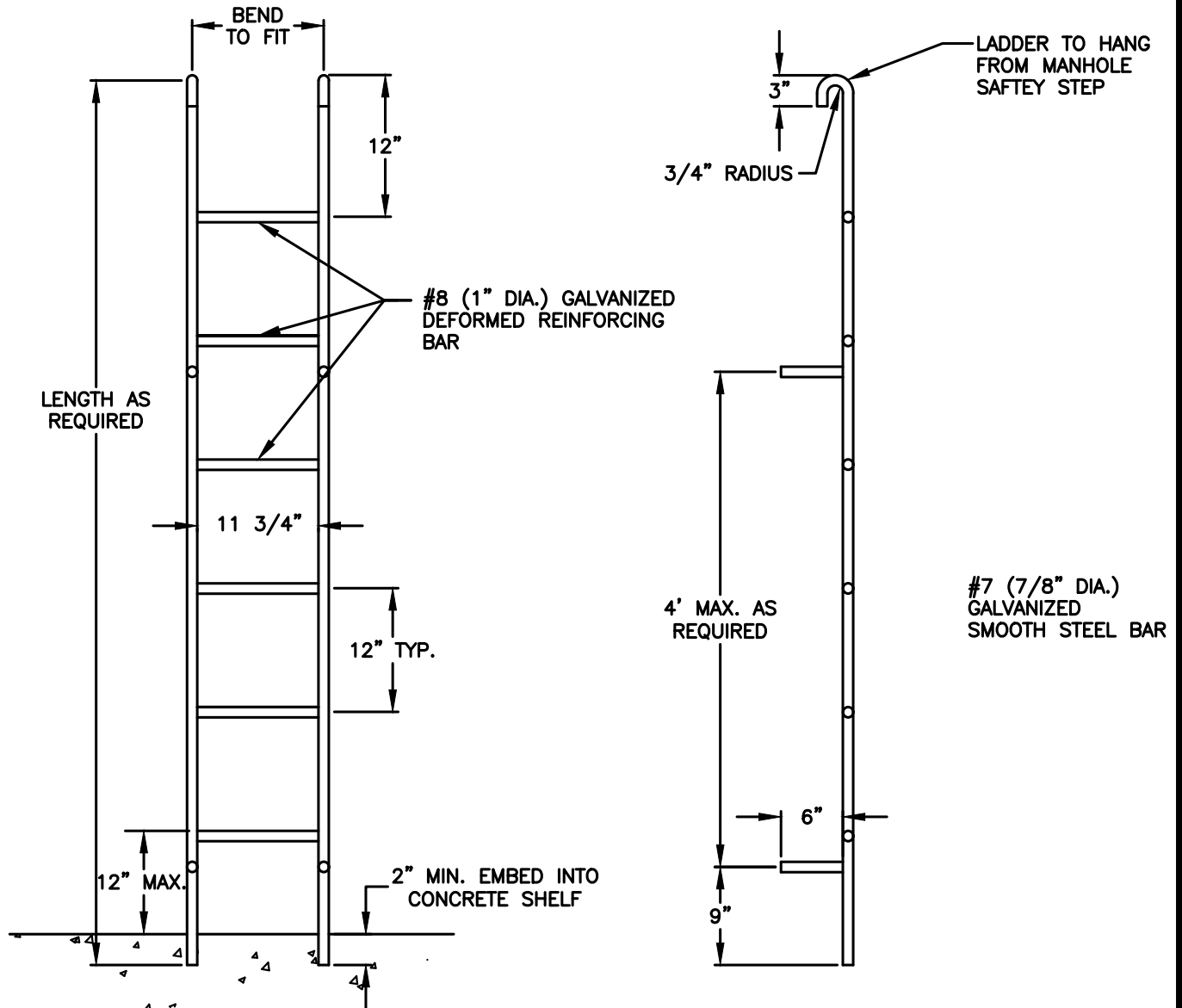
DATE

DWG. NO.

S-12



SAFETY STEP



PREFABRICATED LADDER

NOTE:

1. LADDER RUNGS FOR MANHOLES AND CATCH BASINS SHALL MEET THE REQUIREMENTS OF AASHTO M 199.



CITY OF NORTH BEND

SAFETY STEP AND
PREFABRICATED LADDER

APPROVED:

MARK RIGOS, P.E.

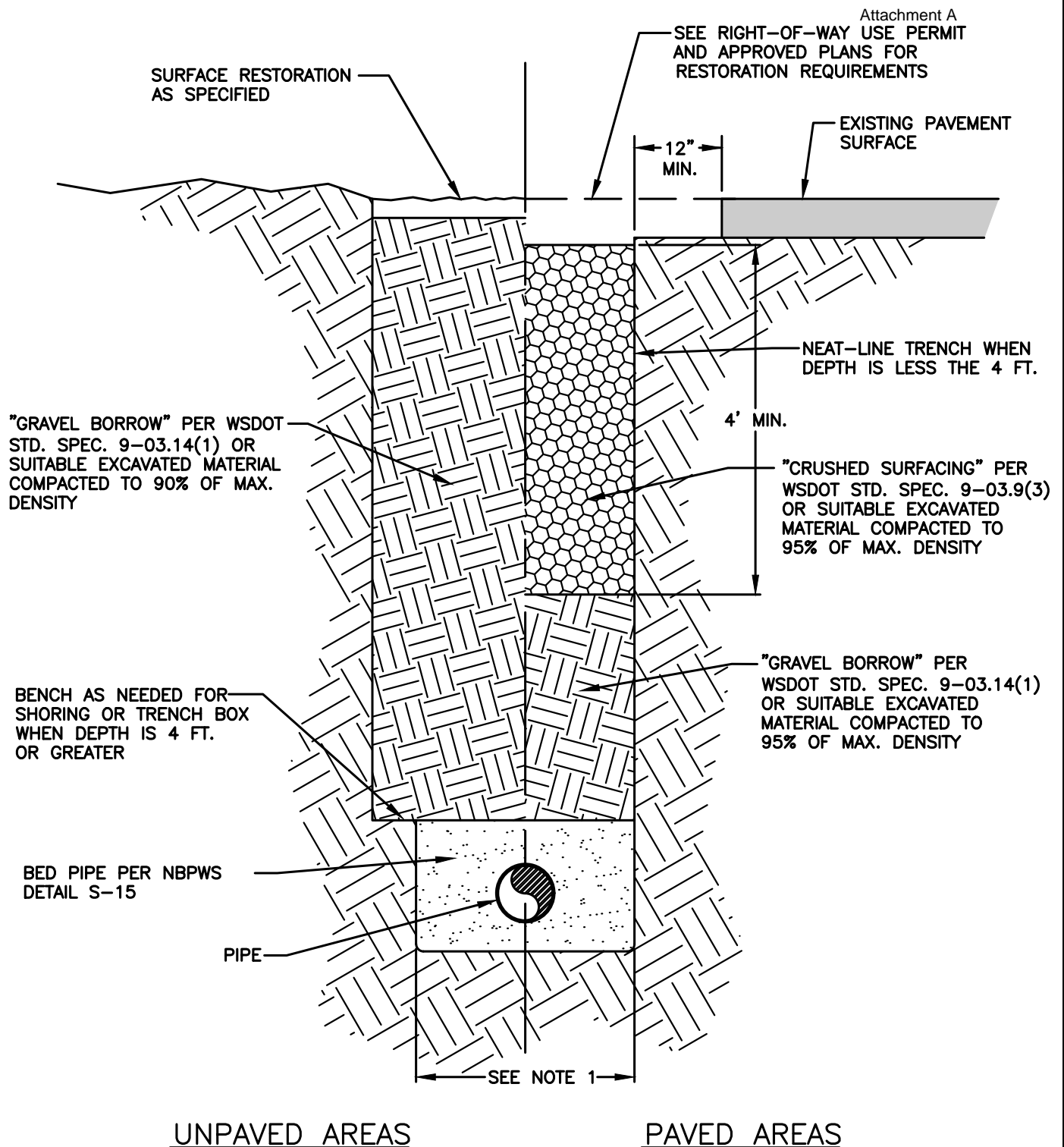
BY CITY

MAY 2018

DATE

DWG. NO.

S-13



NOTES:

1. FOR PIPES 15-INCHES AND UNDER, TRENCH WIDTH=I.D. + 30-INCHES. FOR PIPES 18-INCHES AND OVER, TRENCH WIDTH=(1.5 x I.D.)+18-INCHES. PER SECTION 2-09.4, "MEASUREMENT", OF THE WSDOT STANDARD SPECIFICATIONS.
2. EXCAVATIONS OVER 4' DEEP SHALL COMPLY WITH THE SAFETY STANDARD DESCRIBED IN CHAPTER 296-155 - PART N OF THE WAC.
3. SEE "BEDDING, BACKFILL AND COMPACTION" IN THE STANDARDS FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.



CITY OF NORTH BEND

TYPICAL TRENCH DETAIL

APPROVED:

MARK RIGOS, P.E.

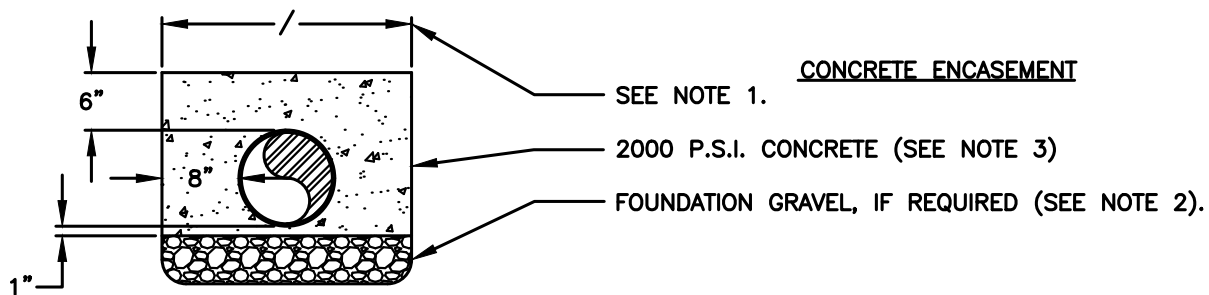
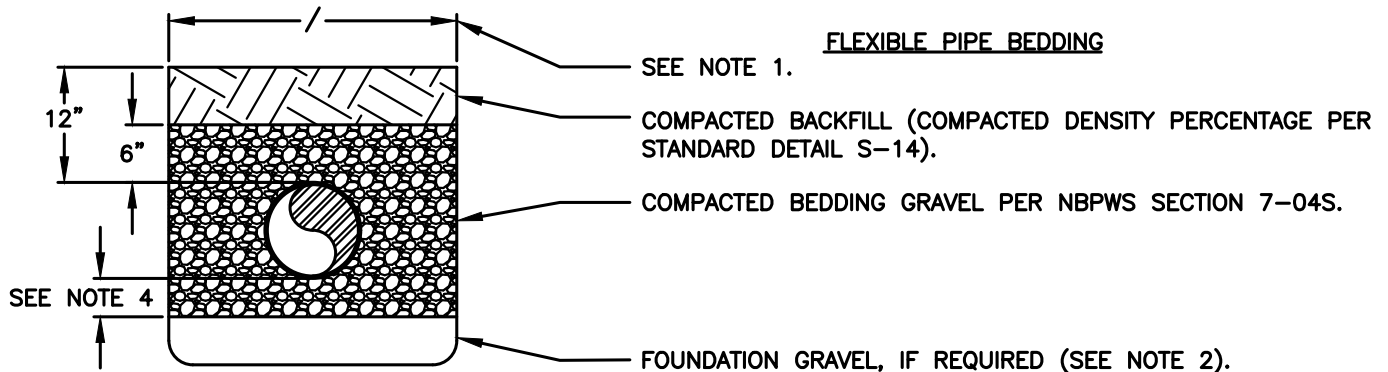
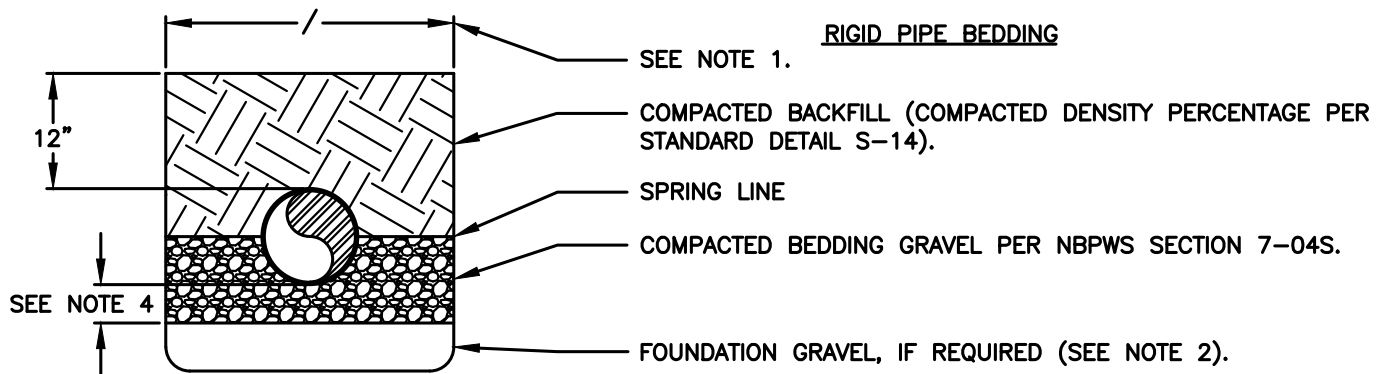
BY CITY

MAY 2018

DATE

DWG. NO.

S-14

**NOTES:**

1. FOR PIPES 15-INCHES AND UNDER, TRENCH WIDTH=I.D. + 30-INCHES. FOR PIPES 18-INCHES AND OVER, TRENCH WIDTH=(1.5 x I.D.)+18-INCHES. PER SECTION 2-09.4, "MEASUREMENT", OF THE WSDOT STANDARD SPECIFICATIONS.
2. EXCAVATE UNSTABLE MATERIAL DOWN TO FIRM SOIL AND REPLACE WITH FOUNDATION GRAVEL PER SECTION 9-03.9(3), "BALLAST", OF THE WSDOT STANDARD SPECIFICATIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANCHORING PIPE TO PREVENT FLOTATION DURING CONCRETE PLACEMENT.
4. 4-INCHES FOR PIPE 18-INCH DIAMETER AND LESS; 6-INCHES FOR PIPE GREATER THEN 18-INCH DIAMETER.
5. SEE WSDOT SECTION 9-03.9 FOR ADDITIONAL REQUIREMENTS.



CITY OF NORTH BEND

PIPE BEDDING

APPROVED:

MARK RIGOS, P.E.

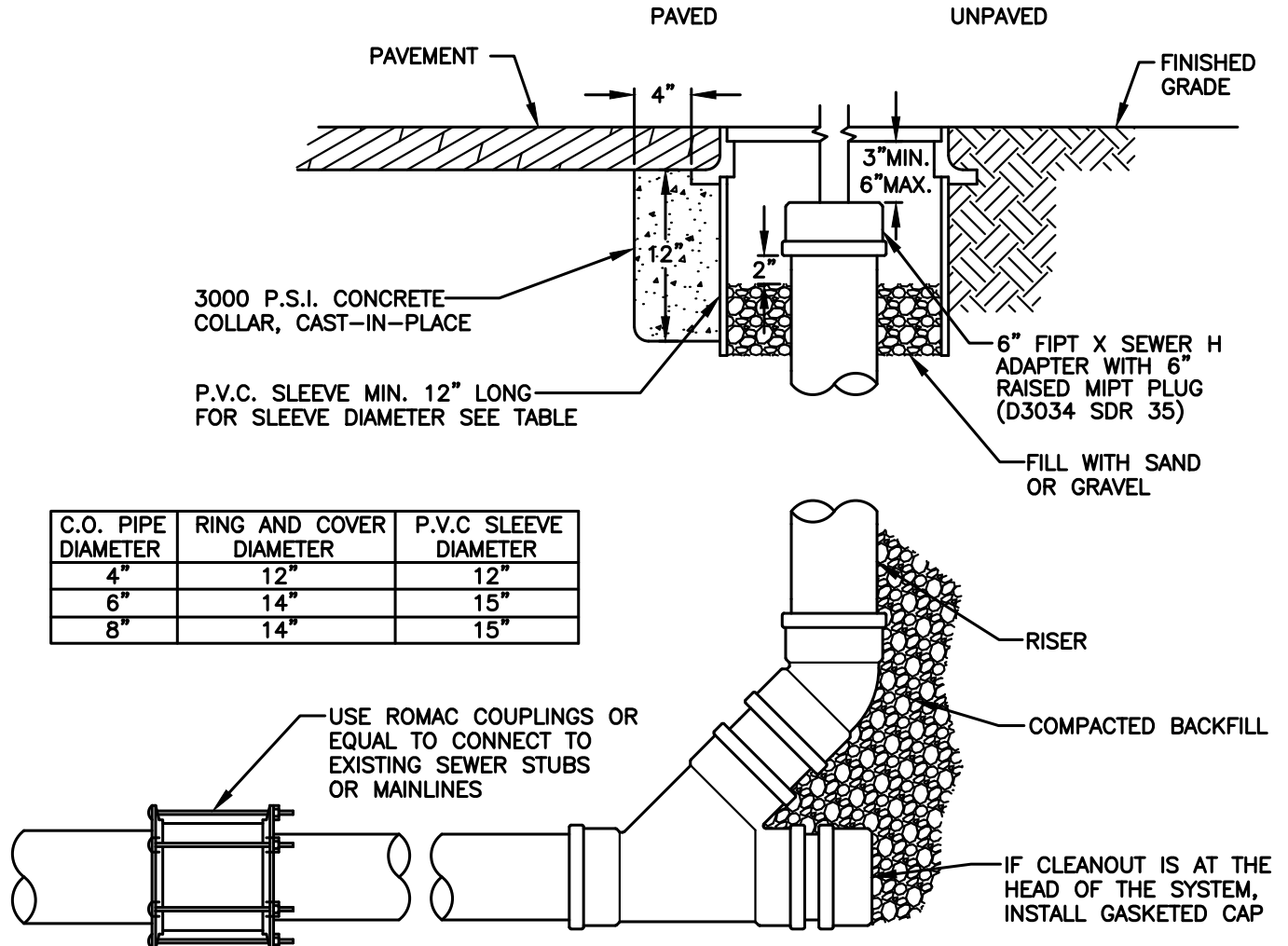
BY CITY

MAY 2018

DATE

DWG. NO.

S-15

**NOTES:**

1. BOLT-LOCKING CAST IRON RING AND COVER SHALL BE USED IN RIGHT-OF-WAY AND EASEMENTS AND MUST BE RATED HS-20 IF USED IN PAVED AREAS. SEE TABLE FOR SIZES.
2. MID-STATES PLASTIC BOX OR EQUAL MAY BE USED IF C.O. IS OUTSIDE OF RIGHT-OF-WAY OR EASEMENT. SEE TABLE FOR SIZES. THE COVER FOR THE PLASTIC BOX SHALL BE DUCTILE IRON AND READ "SEWER" OR BE BLANK (NO LABEL).
3. CAST IRON COVER SHALL READ "SEWER."
4. 14" BOLT-LOCKING CAST IRON COVER SHALL BE EQUAL TO OLYMPIC FOUNDRY PART NUMBER M1060.
5. SPECIAL "DECORATIVE" CASTING MAY BE USED IF PRE-APPROVED BY CITY.



CITY OF NORTH BEND

CLEANOUT TO GRADE

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

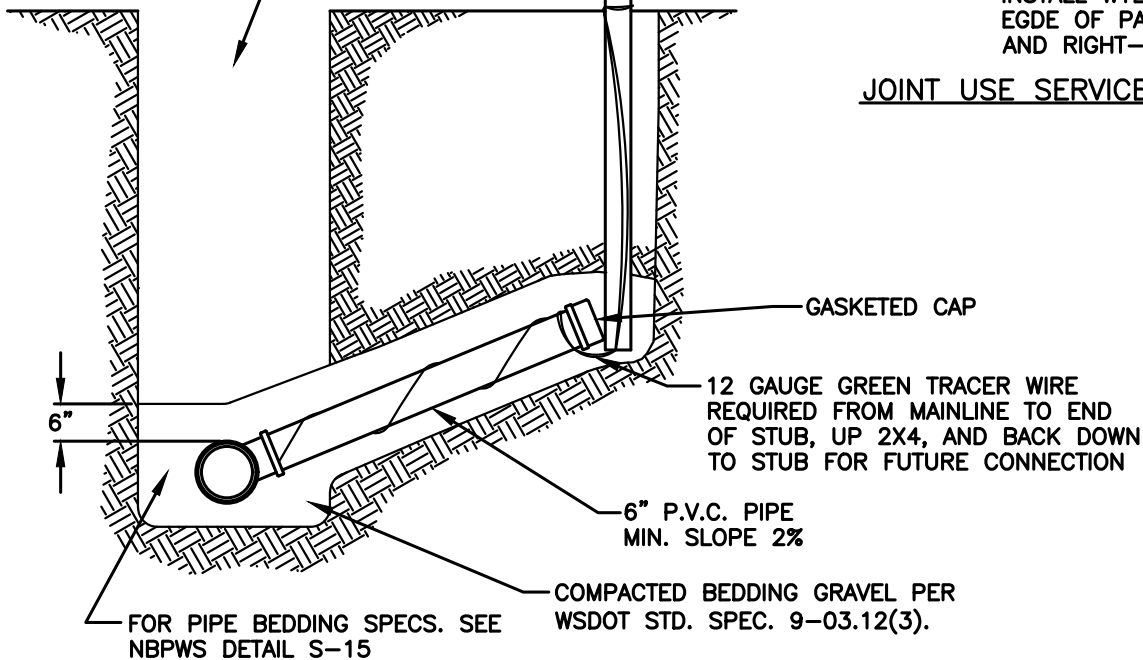
DWG. NO.

S-16

2"X 4" STAKE BURIED AT DEPTH OF PIPE INVERT, PAINTED WHITE ABOVE GROUND. EXTEND A MINIMUM OF 3 FEET ABOVE GRADE.

MARK 2"X 4" STAKE WITH "SEWER", DEPTH FROM PIPE INVERT TO FINAL GRADE, AND DISTANCE FROM MAIN TO END OF STUB.

FOR TRENCH SPECS. SEE NBPWS DETAIL S-14



NOTES:

1. UNLESS OTHERWISE INDICATED ON PLAN, SIDE SEWER SHALL BE MINIMUM OF 5 FEET DEEP AT PROPERTY LINE, OR 5 FEET LOWER THAN THE LOWEST ELEVATION, WHICHEVER IS LOWER.
2. PIPE CAN BE REDUCED TO 4" DIAMETER ON PRIVATE PROPERTY.
3. CLEANOUT SHALL BE INSTALLED WITHIN 25 FEET OF WYES.



CITY OF NORTH BEND
SIDE SEWER STUB
(ONLY WHERE PLANS DO NOT REQUIRE CLEANOUTS)

APPROVED:

MARK RIGOS, P.E.

BY CITY

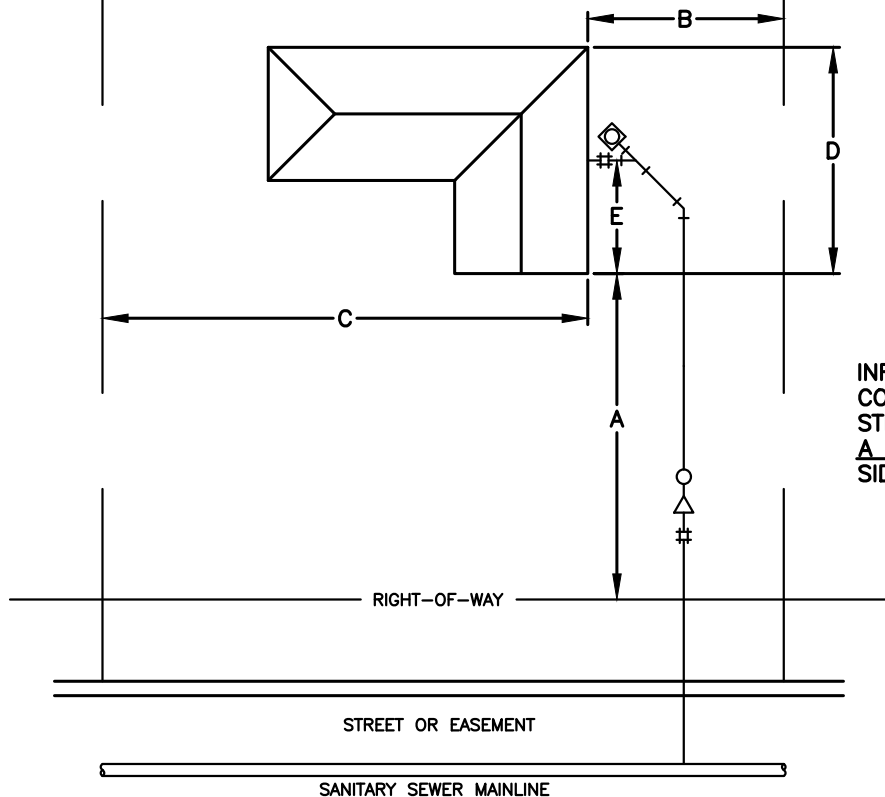
MAY 2018

DATE

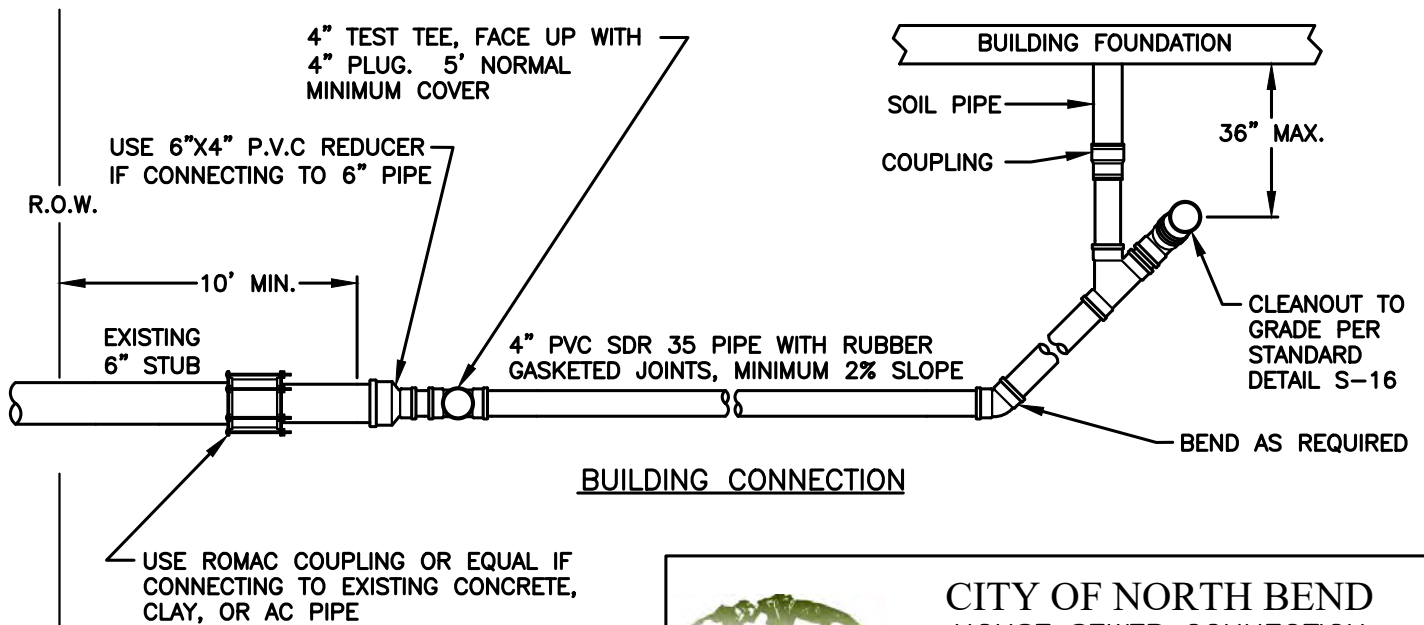
DWG. NO.

S-17

TYPICAL HOUSE SIDE SEWER ON PRIVATE PROPERTY



INFORMATION REQUIRED FOR SEWER CONNECTION PERMIT: LEGAL DESCRIPTION, STREET ADDRESS, PLAN WITH DIMENSIONS A THROUGH E SHOWN, AND COMPLETION OF SIDE SEWER APPLICATION.



NOTES:

1. REMOVE 2"x4" STAKE AND CAP OR EXIST SIDE SEWER PIPE AND INSTALL NEW 4" P.V.C SIDE SEWER. USE COUPLINGS, REDUCERS, WYES, TEES, AND BENDS, AS REQUIRED TO FIT.



CITY OF NORTH BEND HOUSE SEWER CONNECTION (WHEN CONNECTING TO EXISTING STUB ONLY)

APPROVED:

MARK RIGOS, P.E.

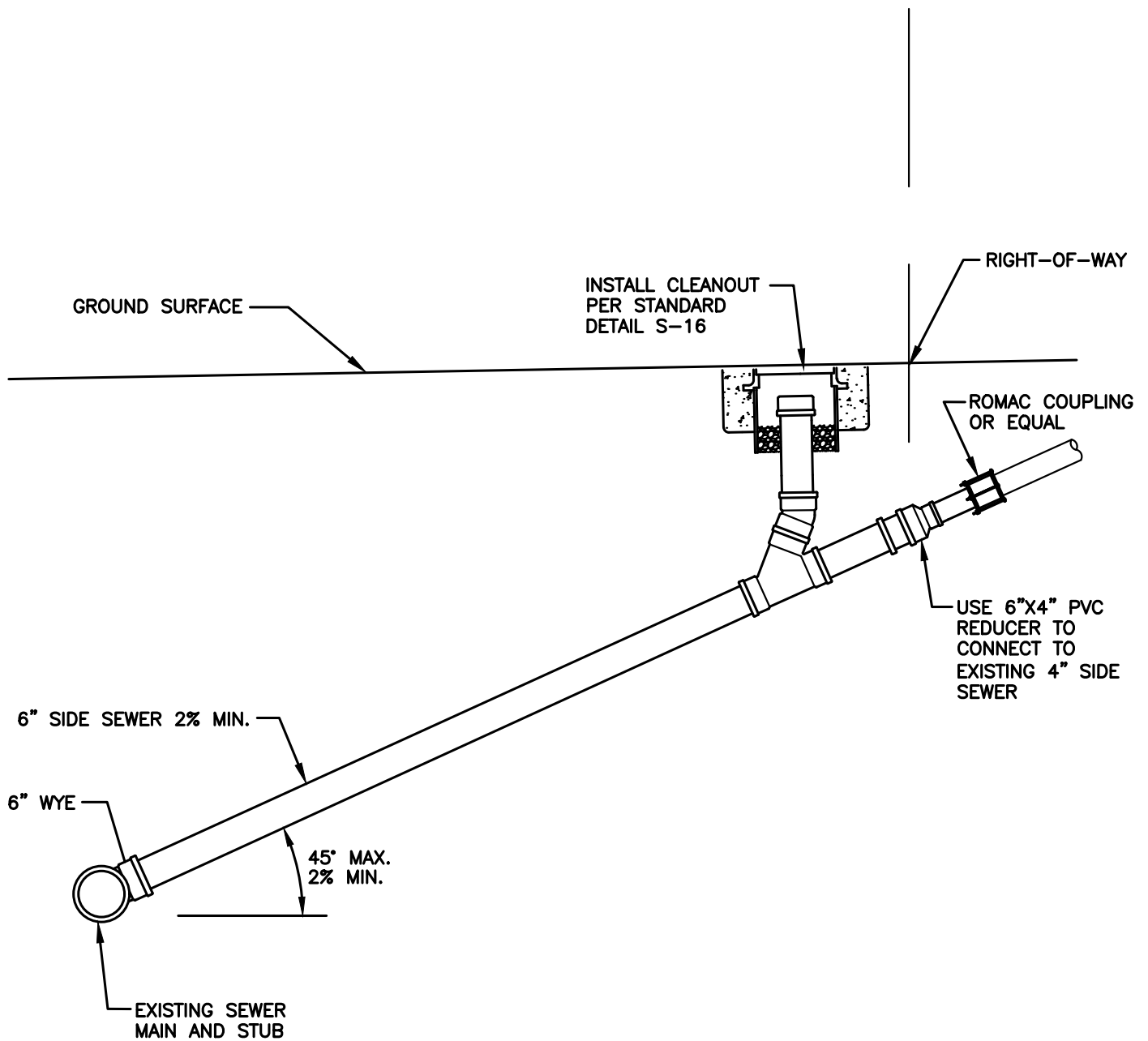
BY CITY

MAY 2018

DATE

DWG. NO.

S-18

**NOTE:**

1. REPLACE ANY EXISTING 4" SIDE SEWER WITH 6" PVC AND EXTEND THE EDGE OF RIGHT-OF-WAY. REMOVE AND DISPOSE OF ANY EXISTING PIPE THAT IS NOT REUSED.



CITY OF NORTH BEND

SIDE SEWER

APPROVED:

MARK RIGOS, P.E.

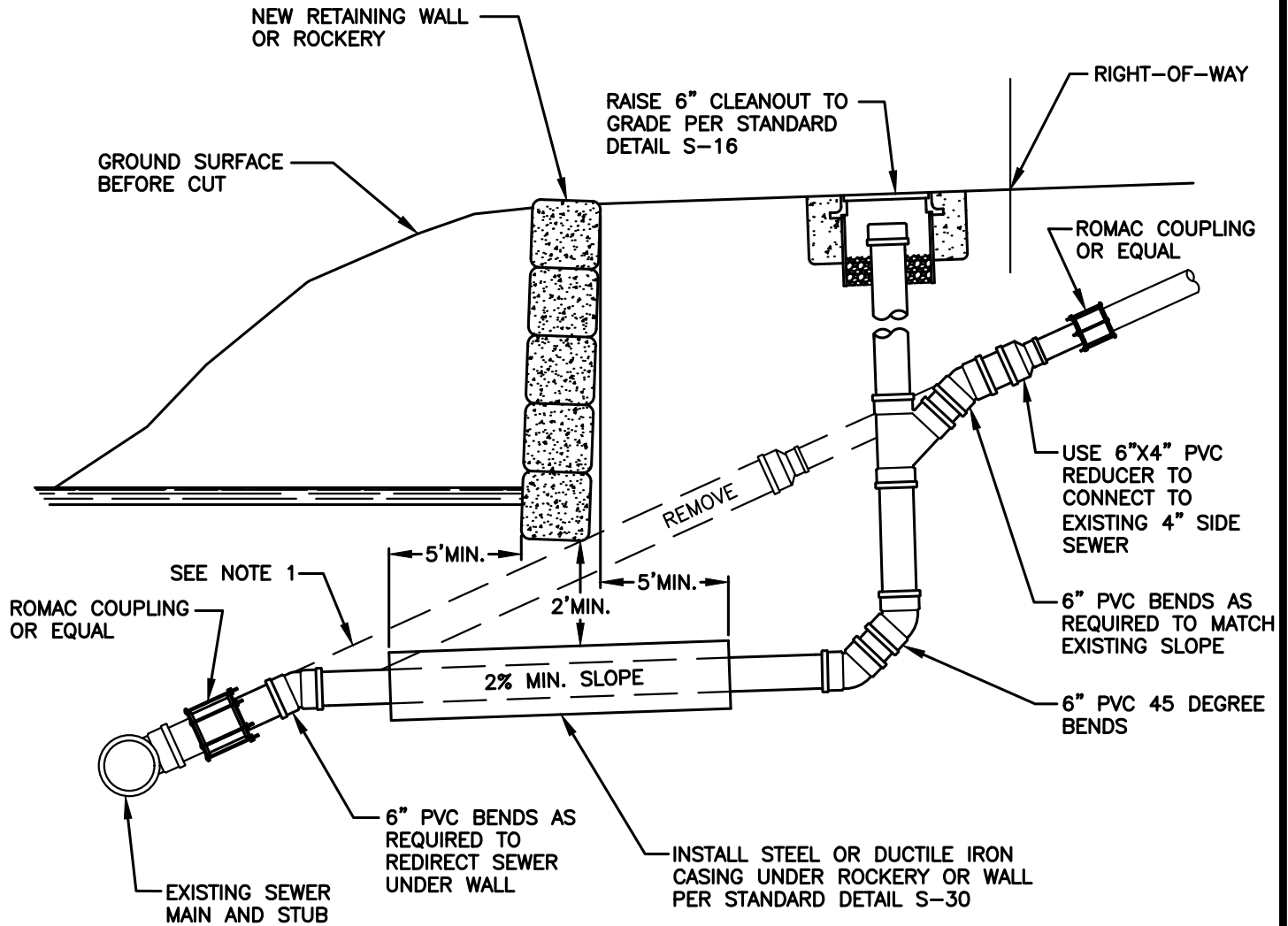
BY CITY

MAY 2018

DATE

DWG. NO.

S-19



NOTES:

1. REPLACE ANY EXISTING 4" SIDE SEWER WITH 6" PVC AND EXTEND TO THE EDGE OF RIGHT-OF-WAY. REMOVE AND DISPOSE OF ANY EXISTING PIPE THAT IS NOT REUSED.
2. RELOCATE SIDE SEWER ONLY WHERE REQUIRED BY ROADWAY CUT.



CITY OF NORTH BEND

SIDE SEWER RELOCATION

APPROVED:

MARK RIGOS, P.E.

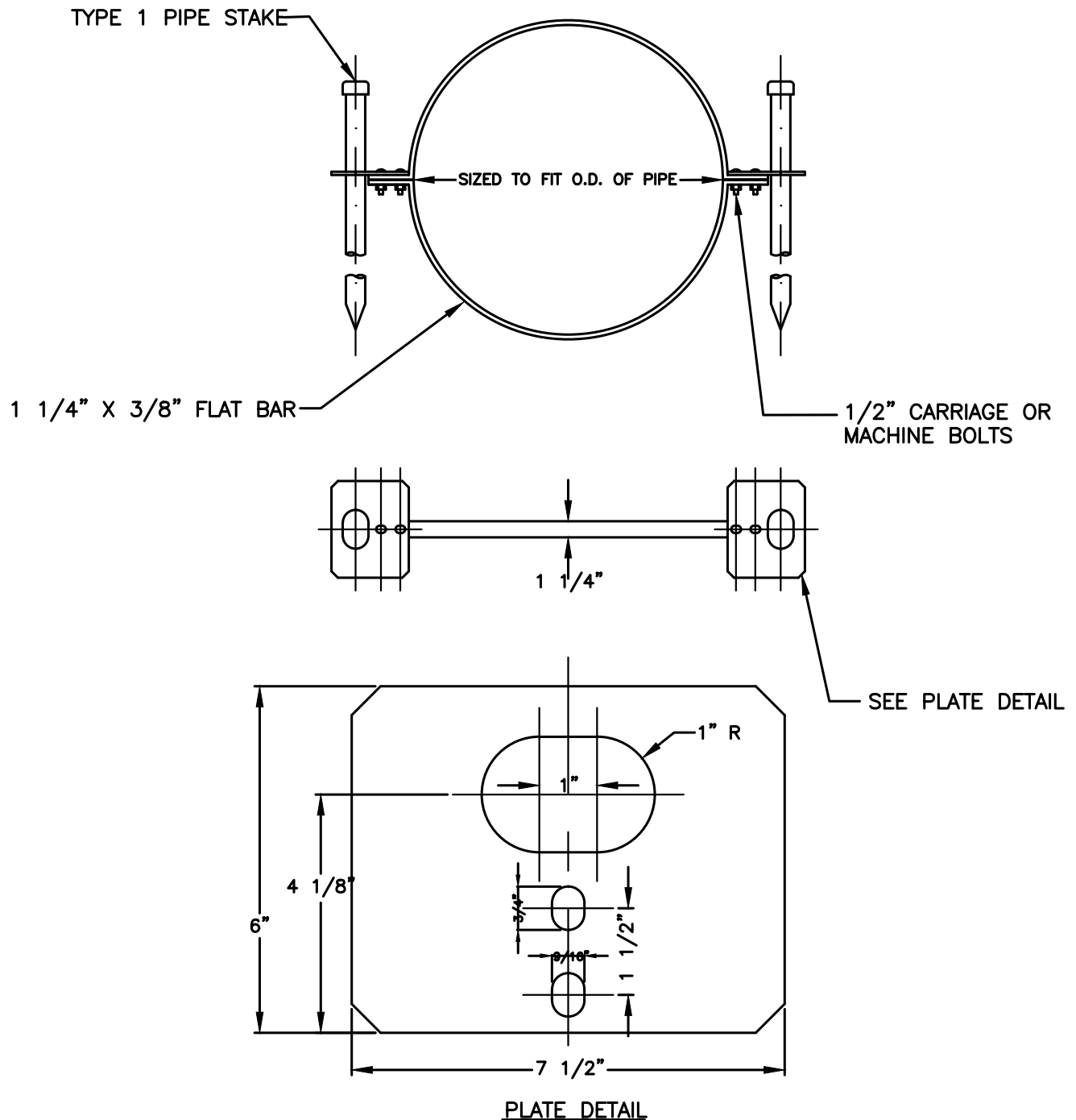
BY CITY

MAY 2018

DATE _____

DWG. NO.

S-20

**NOTES:**

1. ALL PIPE STAKES, HARDWARE AND MATERIALS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
2. TYPE 1 PIPE STAKE: 2" O. D. GALVANIZED PIPE, 6' LONG, WITH A 2" O. D. THREADED PIPE CAP OR WELDED COLLAR. THE OTHER END IS TO BE FLATTENED OR CUT TO TO A POINT.
3. ANCHOR ASSEMBLY IS AN ALTERNATE TO S-19 (BURIED PIPE) OR FOR ABOVE GROUND PIPE WHERE APPROVED BY THE CITY.



CITY OF NORTH BEND

PIPE STAKE ANCHOR ASSEMBLY

APPROVED:

MARK RIGOS, P.E.

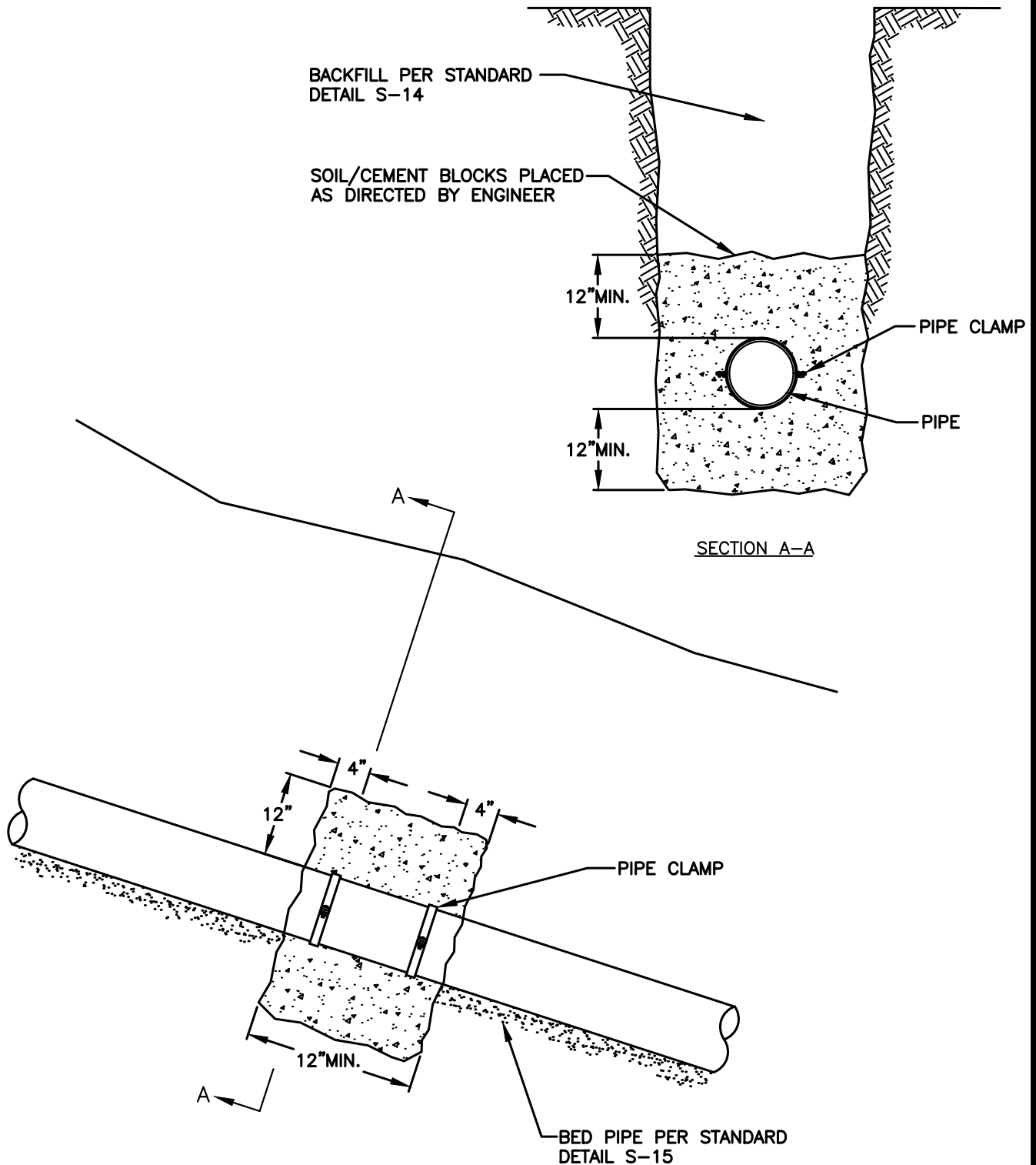
BY CITY

MAY 2018

DATE

DWG. NO.

S-21

**NOTES:**

1. SOIL CEMENT BLOCKS REQUIRED ON PIPE SLOPES OF 20% OR GREATER.
2. SOIL CEMENT BLOCKS PLACED OVER AND AROUND. TAMPED INTO PLACE BEFORE BACKFILLING. USE 10% CEMENT WITH 90% NATIVE SOIL MIX. ADD ENOUGH WATER TO FORM A DRY MIX THAT WILL HOLD ITS SHAPE WHEN MOLDED INTO A BALL.
3. PLACE TWO PIPE CLAMPS, 4" FROM BLOCK ENDS TO PROVIDE ANCHORAGE TO SOIL/CEMENT MIX.



CITY OF NORTH BEND

SOIL CEMENT PIPE ANCHORS

APPROVED:

MARK RIGOS, P.E.

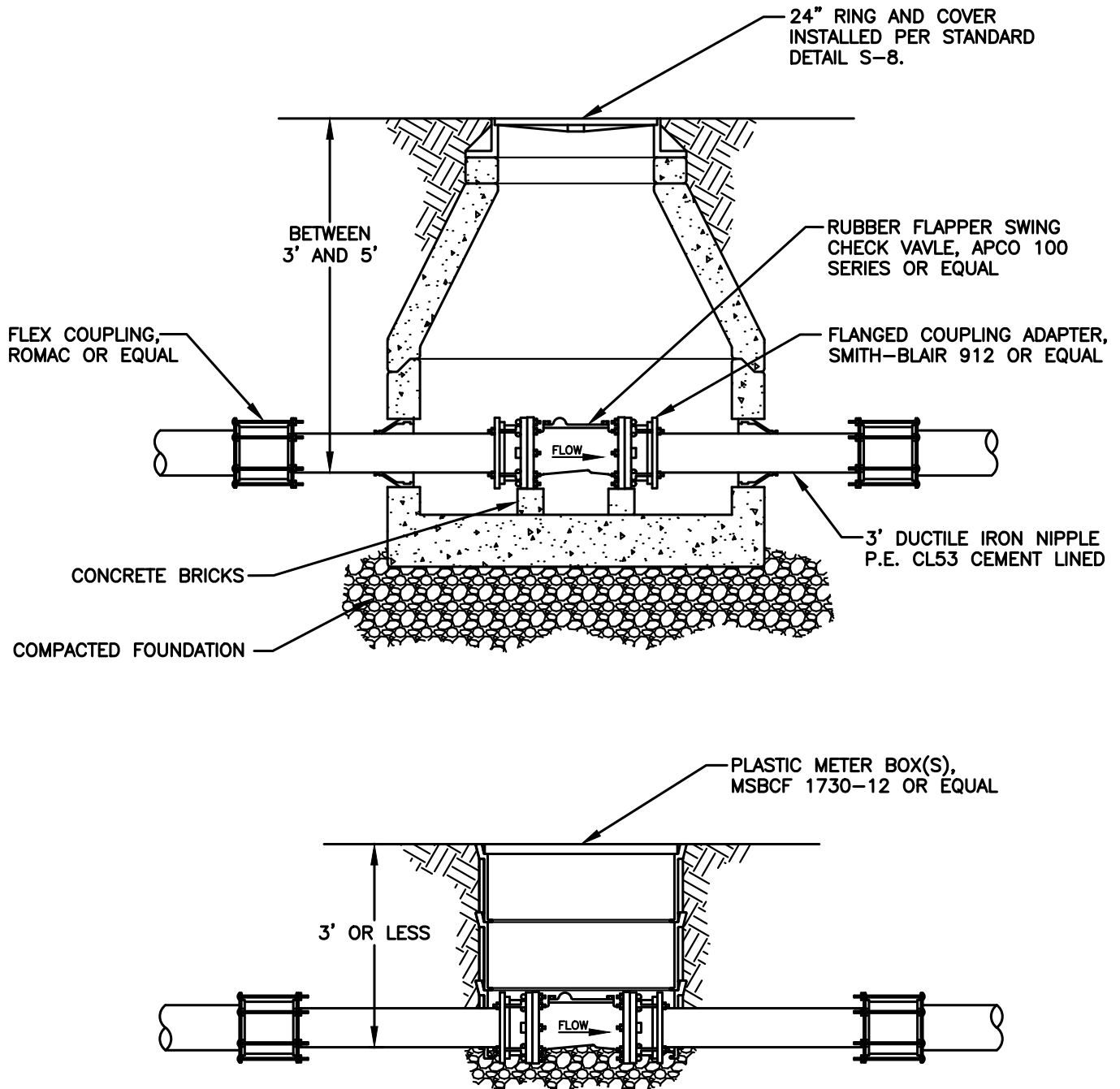
BY CITY

MAY 2018

DATE

DWG. NO.

S-22

**NOTES:**

1. WHERE DEPTH OF PIPE INVERT IS LESS THAN 3 FEET, USE PLASTIC METER BOX FOR VALVE CHAMBER (MID STATES PLASTIC MODEL MSBCF 1730-12 OR EQUAL). THE COVER FOR THE PLASTIC BOX SHALL BE DUCTILE IRON AND READ "SEWER", OR BE BLANK (NO LABEL).
STACK 2 OR 3 BOXES AS NECESSARY.
2. WHERE DEPTH OF PIPE INVERT IS BETWEEN 3 FEET AND 5 FEET, USE CONCENTRIC CONE CONCRETE MANHOLE PER STANDARD DETAIL S-6.
3. WHERE DEPTH OF PIPE INVERT IS GREATER THAN 5 FEET, USE STANDARD ECCENTRIC CONCRETE MANHOLE PER STANDARD DETAIL S-1.

PROVIDED FOR EXAMPLE ONLY, PROJECT SPECIFIC DETAILS WILL BE REQUIRED TO BE SUBMITTED FOR REVIEW AND ARE TO BE INCLUDED IN THE PROJECT PLANS.



CITY OF NORTH BEND
CHECK VALVE ASSEMBLY FOR
JOINT USE SIDE SEWER
(4" TO 8" DIAMETER)

APPROVED:

MARK RIGOS, P.E.

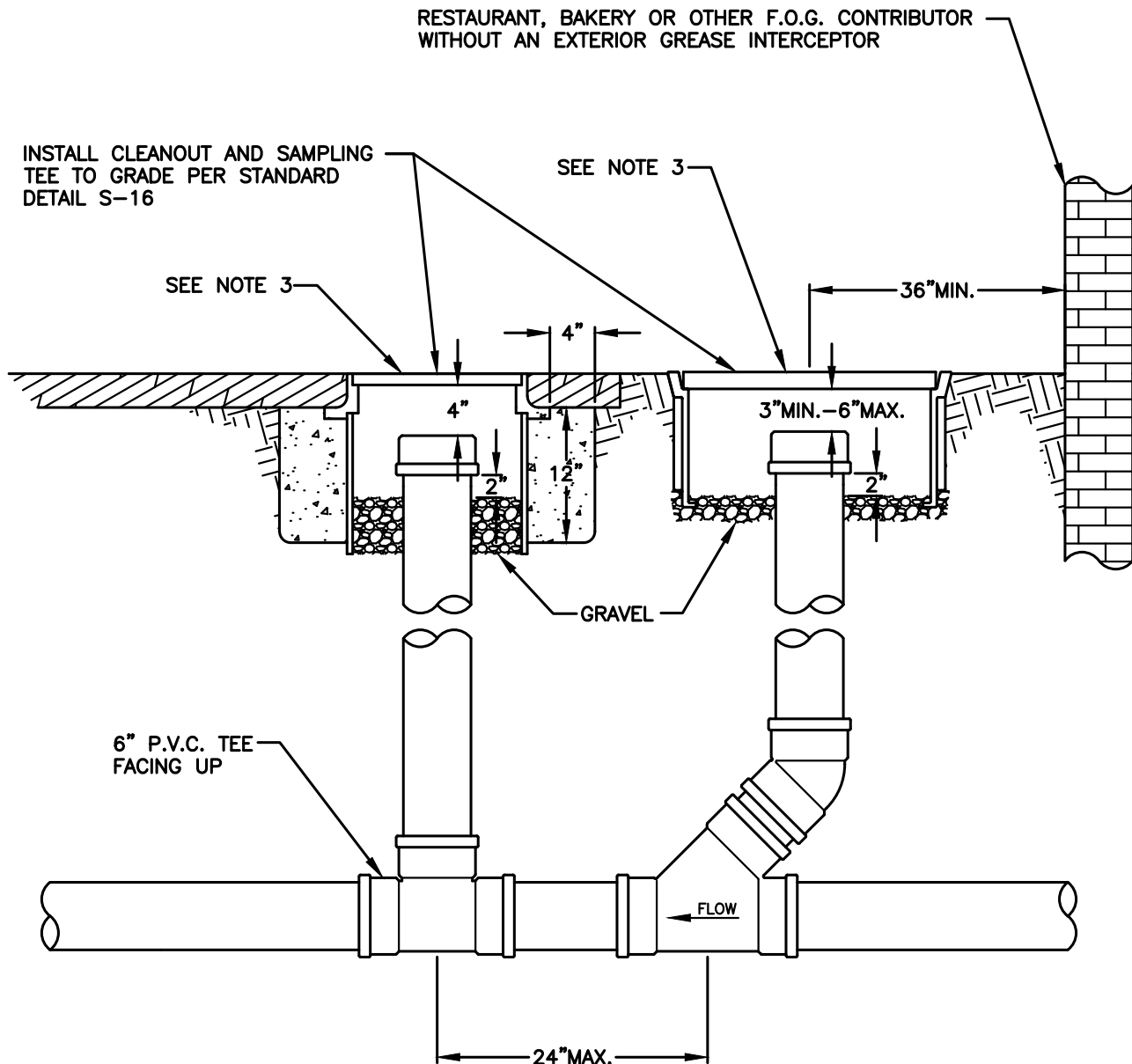
BY CITY

MAY 2018

DATE

DWG. NO.

S-23

**NOTES:**

1. ONLY FOR USE ON PROPERTIES THAT DO NOT HAVE AN EXTERIOR GREASE INTERCEPTOR.
2. INSTALL SAMPLING TEE ON EXISTING OR NEW SIDE SEWER.
3. FOR PAVED AREAS USE 14" BOLT-LOCKING RING AND COVER EQUAL TO INLAND FOUNDRY NUMBER 209 OR 210.
FOR UNPAVED AREAS USE MID-STATES PLASTIC BOX MODEL MSBCF-1118-18XL OR EQUAL. THE COVER FOR THE PLASTIC BOX SHALL BE DUCTILE IRON AND READ "SEWER", OR BE BLANK (NO LABEL).

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CITY OF NORTH BEND

SAMPLING TEE

APPROVED:

MARK RIGOS, P.E.

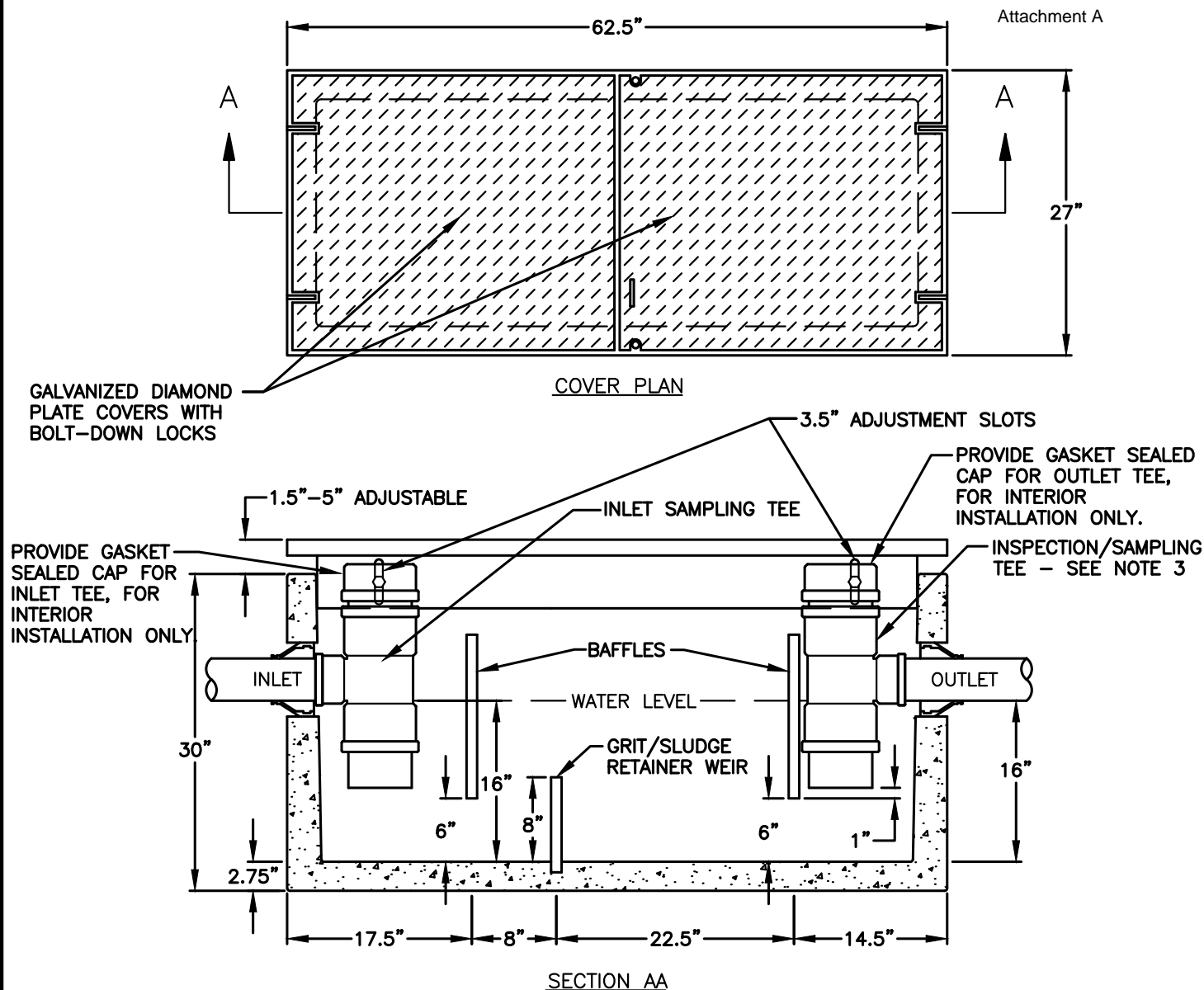
BY CITY

MAY 2018

DATE

DWG. NO.

S-24



NOTES:

1. USE UTILITY VAULT COMPANY INC. MODEL #25-SA OR EQUAL. PRECAST VAULT SHALL HAVE KNOCKOUTS AT ALL PIPE OPENINGS. IF KNOCKOUTS ARE NOT PRESENT, THEN PIPE OPENINGS SHALL BE CORE-DRILLED. PIPE OPENINGS SHALL BE 2" LARGER THAN THE PIPE DIAMETER.
2. P.V.C INSPECTION AND SAMPLING TEE SHALL BE THE SAME SIZE AS THE OUTLET PIPE FOR 6" OUTLET OR GREATER. USE 6" BY OUTLET-SIZE TEE WHERE OUTLET PIPE SIZE IS LESS THAN 6". INSTALL GASKETED CAP ON TOP OF THE SAMPLING TEE, FOR INTERIOR INSTALLATION ONLY.
3. FILL WITH CLEAN WATER PRIOR TO START-UP OF THE SYSTEM.
4. GRAY AND BLACK WATER SHALL BE CARRIED BY SEPARATE SIDE SEWER.
5. PIPE CONNECTION TO VAULT: KOR-N-SEAL OR EQUAL FOR CORE-DRILLED OPENINGS, OR SAND COLLAR FOR KNOCKOUT OPENING. SEAL ALL PIPE CONNECTIONS WITH NONSHRINK GROUT.
6. INTERIOR OIL/WATER SEPARATORS SHALL HAVE VENTING PER 2009 UNIFORM PLUMBING CODE REQUIREMENTS.
7. PRIOR TO STARTUP, OIL/WATER SEPARATOR SHALL PASS 1% PER DAY LEAK TEST WHERE ONLY A MAXIMUM OF 1% OF DEAD STORAGE REDUCTION IS ALLOWED WITHIN A 24 HOUR PERIOD PER THE 2009 UNIFORM PLUMBING CODE 712.2

PROVIDED FOR EXAMPLE ONLY, PROJECT SPECIFIC DETAILS WILL BE REQUIRED TO BE SUBMITTED FOR REVIEW AND ARE TO BE INCLUDED IN THE PROJECT PLANS.



CITY OF NORTH BEND

100 GALLON BAFFLE TYPE
OIL/WATER SEPARATOR

APPROVED:

MARK RIGOS, P.E.

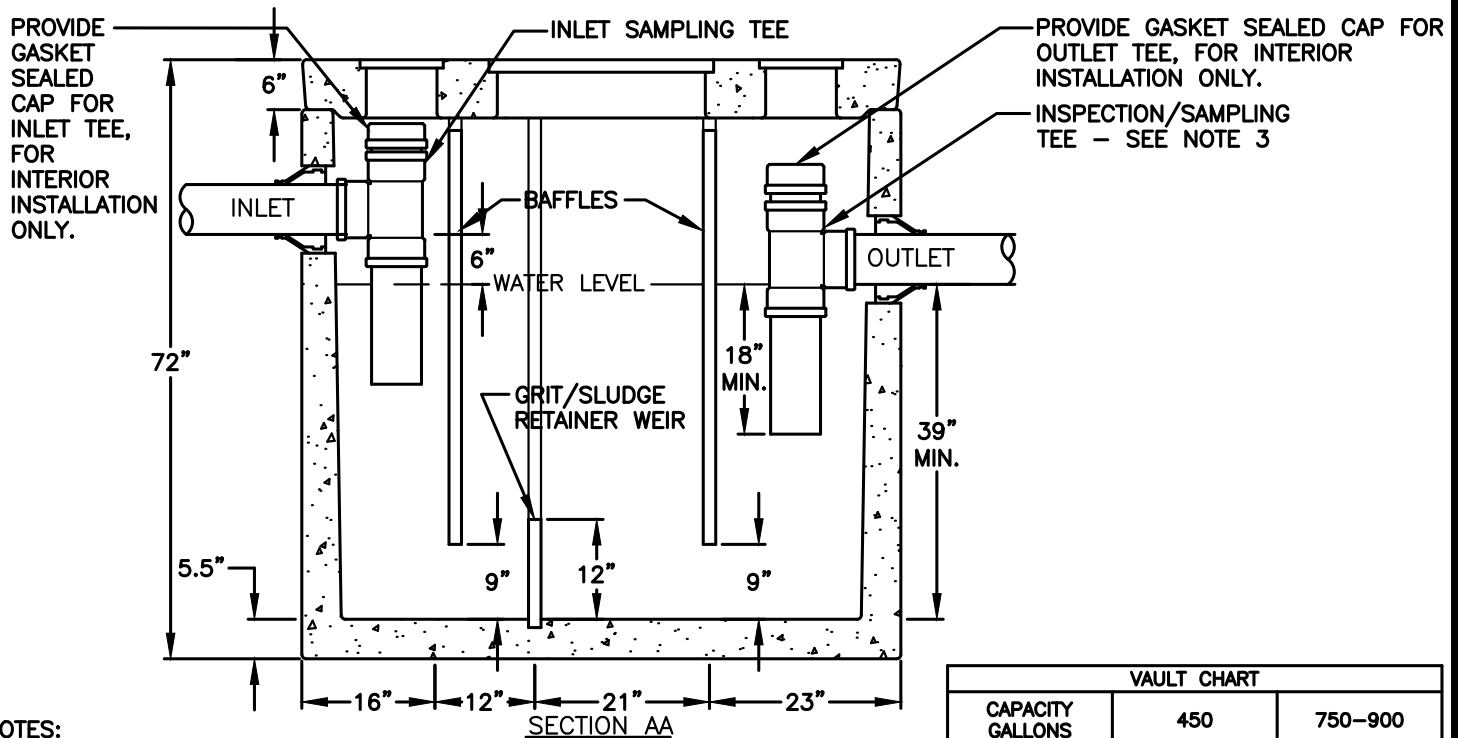
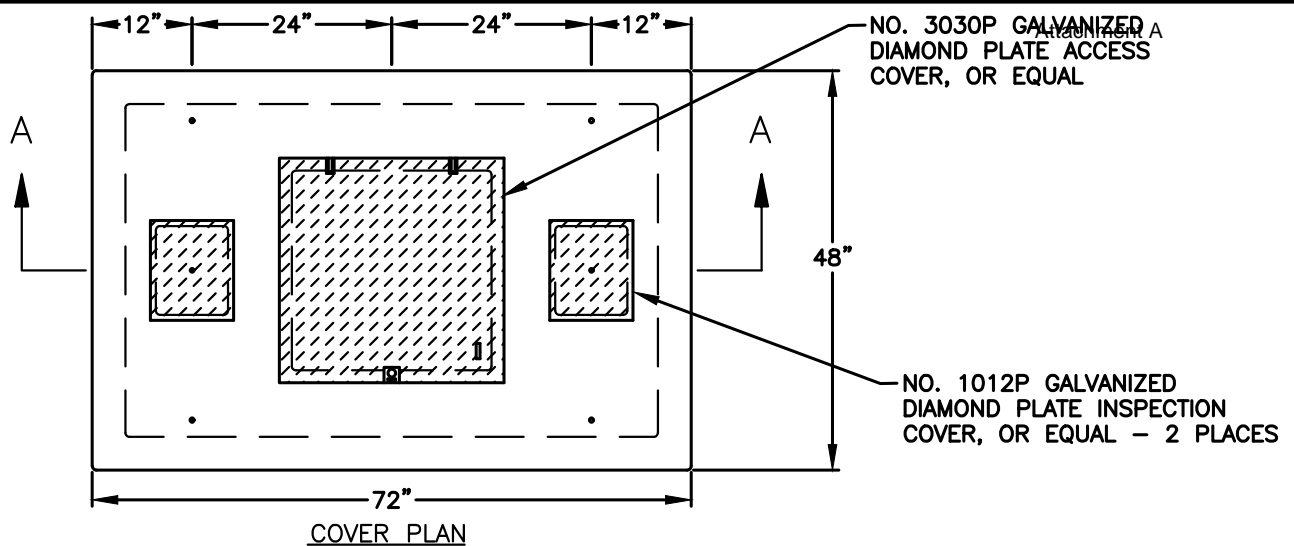
BY CITY

MAY 2018

DATE

DWG. NO.

S-25



NOTES:

1. USE UTILITY VAULT COMPANY INC. MODELS (SEE CHART) OR EQUAL. PRECAST VAULT SHALL HAVE KNOCKOUTS AT ALL PIPE OPENINGS. IF KNOCKOUTS ARE NOT PRESENT, THEN PIPE OPENINGS SHALL BE CORE-DRILLED. PIPE OPENINGS SHALL BE 2" LARGER THAN THE PIPE DIAMETER.
2. P.V.C. INSPECTION AND SAMPLING TEE SHALL BE THE SAME SIZE AS THE OUTLET PIPE FOR 6" OUTLET OR GREATER. USE 6" P.V.C. TEE WHERE OUTLET PIPE SIZE IS LESS THAN 6". INSTALL GASKETED CAP ON TOP OF THE SAMPLING TEE, FOR INTERIOR INSTALLATIONS ONLY.
3. FILL WITH CLEAN WATER PRIOR TO START-UP OF THE SYSTEM.
4. GRAY AND BLACK WATER SHALL BE CARRIED BY SEPARATE SIDE SEWER.
5. PIPE CONNECTION TO VAULT: KOR-N-SEAL OR EQUAL FOR CORE-DRILLED OPENINGS, OR SAND COLLAR FOR KNOCKOUT OPENING. SEAL ALL PIPE CONNECTIONS WITH NONSHRINK GROUT.
6. INTERIOR OIL/WATER SEPARATORS SHALL HAVE VENTING PER 2009 UNIFORM PLUMBING CODE REQUIREMENTS.
7. PRIOR TO STARTUP, OIL/WATER SEPARATOR SHALL PASS 1% PER DAY LEAK TEST WHERE ONLY A MAXIMUM OF 1% OF DEAD STORAGE REDUCTION IS ALLOWED WITHIN A 24 HOUR PERIOD PER THE 2009 UNIFORM PLUMBING CODE 712.2

VAULT CHART		
CAPACITY GALLONS	450	750-900
MODEL #	660-SA	577-SA
LENGTH	6'-0"	7'-0"
WIDTH	4'-0"	4'-8"
HEIGHT	6'-0"	7'-0"
MANUFACTURER	UV	UV

PROVIDED FOR EXAMPLE ONLY, PROJECT SPECIFIC DETAILS WILL BE REQUIRED TO BE SUBMITTED FOR REVIEW AND ARE TO BE INCLUDED IN THE PROJECT PLANS.



CITY OF NORTH BEND

**450-900 GALLON BAFFLE TYPE
OIL/WATER SEPARATOR**

APPROVED:

MARK RIGOS, P.E.

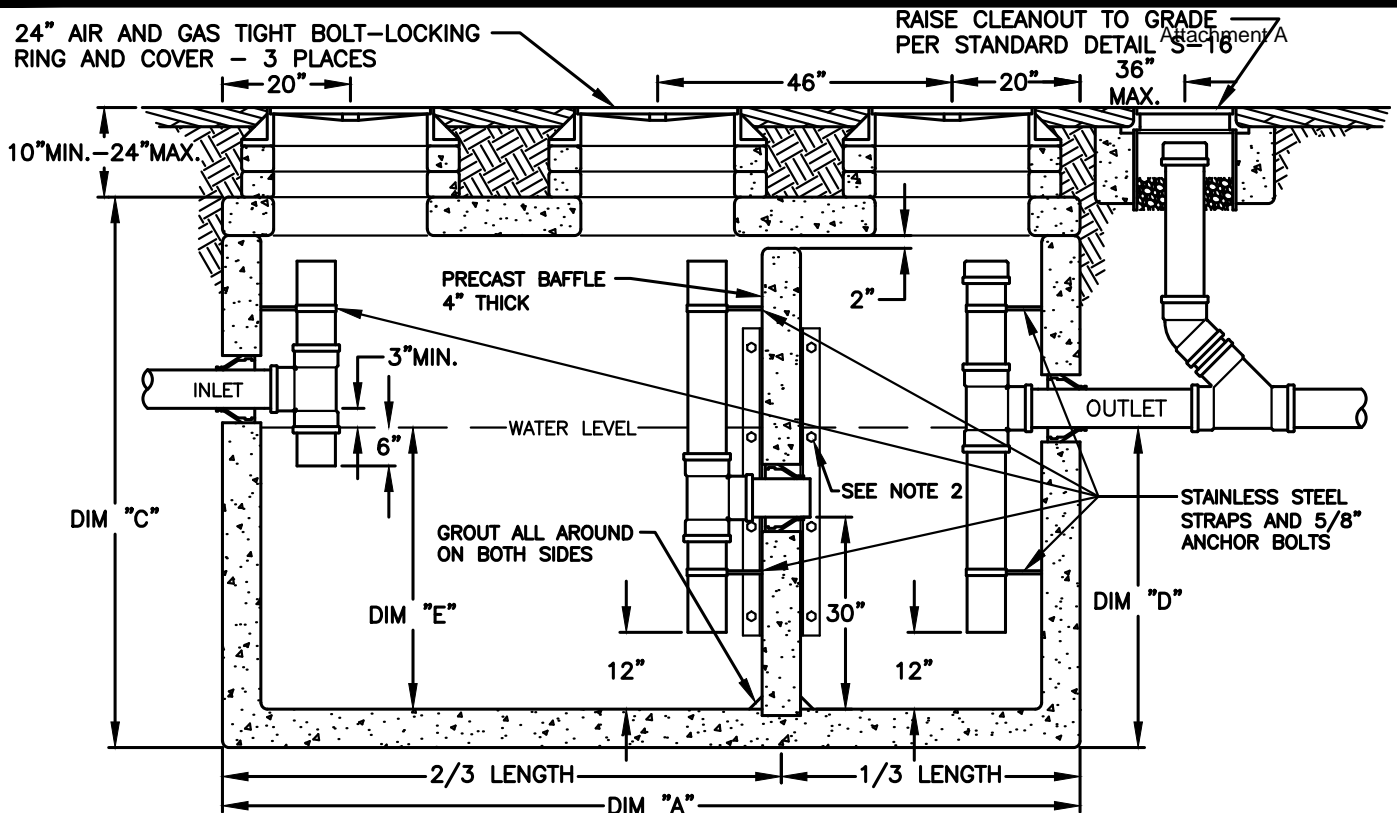
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DATE

DWG. NO.

S-26



GALLON CAPACITY	600	750	1000	1500	2000	2500	3000	4000	5000	6000
UV CO. MODEL No.	577-GA	577-GA	4484-GA	5106-GA	612-GA	612-GA	712-GA	712-GA	818-GA	818-GA
LENGTH DIM "A"	7'-0"	7'-0"	9'-0"	11'-2"	12'-8"	12'-8"	15'-7"	15'-7"	19'-11"	19'-11"
WIDTH DIM "B"	4'-8"	4'-8"	5'-0"	5'-8"	6'-8"	6'-8"	9'-7"	9'-7"	9'-11"	9'-11"
HEIGHT DIM "C"	7'-0"	7'-0"	7'-2"	7'-2"	8'-0"	8'-0"	8'-6 1/2"	8'-6 1/2"	8'-11"	10'-5"
DIM "D"	3'-6"	4'-3"	4'-2"	4'-4"	4'-7"	5'-6"	5'-0"	6'-3"	6'-2"	7'-2"
WATER DEPTH DIM "E"	3'-2"	3'-11"	3'-10"	4'-0"	3'-10"	4'-9"	3'-9"	5'-0"	4'-9"	5'-9"

NOTES:

- USE UTILITY VAULT COMPANY INC. PRECAST CONCRETE VAULT OR EQUAL. SEE CHART ABOVE FOR DIMENSIONS REQUIRED FOR EACH GALLON CAPACITY. PRECAST VAULT SHALL HAVE KNOCKOUTS AT ALL PIPE OPENINGS. IF KNOCKOUTS ARE NOT PRESENT, THEN PIPE OPENINGS SHALL BE CORE-DRILLED. PIPE OPENINGS SHALL BE 2" LARGER THAN THE PIPE DIAMETER.
- IF VAULT IS NOT SLOTTED TO ACCEPT PRECAST CONCRETE BAFFLE THEN BAFFLE SHALL BE HELD IN PLACE BY (2) 3"x3"x3/8" ANGLE 4FT. LONG ON EACH SIDE. ALL 4 PIECES OF ANGLE SHALL BE HELD IN PLACE WITH 4 - 1/2" BOLTS WITH WASHERS SPACED 14" ON CENTER. ANGLE AND FASTENERS SHALL BE STAINLESS STEEL OR GALVANIZED AND ASPHALT COATED.
- P.V.C. INSPECTION AND SAMPLING TEE SHALL BE THE SAME SIZE AS THE OUTLET PIPE FOR 6" OUTLET OR GREATER. USE 6" P.V.C. TEE WHERE OUTLET PIPE SIZE IS LESS THAN 6". INSTALL GASKETED CAP ON TOP OF THE SAMPLING TEE.
- POSITION RISERS BELOW ACCESS OPENINGS TO ALLOW CLEAR ACCESS TO RISER AND VAULT CHAMBER.
- FOR 1000 GALLON INTERCEPTOR, SUBSTITUTE 12" RING AND COVER FOR "CENTER MANHOLE". LOCATE 12" RING AND COVER DIRECTLY ABOVE TEE AND RISER.
- FOR 600 AND 700 GALLON INTERCEPTOR, SUBSTITUTE 30" RING AND COVER FOR THE TWO 24" MANHOLES LOCATED AT THE OUTLET END OF THE VAULT. CENTER OF 30" RING AND COVER SHALL BE LOCATED 2 FT. FROM THE OUTLET FACE OF VAULT.
- FILL WITH CLEAN WATER PRIOR TO START-UP OF THE SYSTEM.
- GRAY WATER ONLY. BLACK WATER SHALL BE CARRIED BY SEPARATE SIDE SEWER.
- PIPE CONNECTION TO VAULT: KOR-N-SEAL OR EQUAL FOR CORE-DRILLED OPENINGS, OR SAND COLLAR FOR KNOCKOUT OPENING. SEAL ALL PIPE CONNECTIONS WITH NONSHRINK GROUT.
- INTERIOR GREASE INTERCEPTORS SHALL HAVE VENTING PER 2009 UNIFORM PLUMBING CODE REQUIREMENTS.
- PRIOR TO STARTUP, GREASE INTERCEPTOR SHALL PASS 1% PER DAY LEAK TEST WHERE ONLY A MAXIMUM OF 1% OF DEAD STORAGE REDUCTION IS ALLOWED WITHIN A 24 HOUR PERIOD PER THE 2009 UNIFORM PLUMBING CODE 712.2

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PROJECT PLANS.



CITY OF NORTH BEND

GREASE INTERCEPTOR

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

S-28



CITY OF NORTH BEND

RESERVED

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

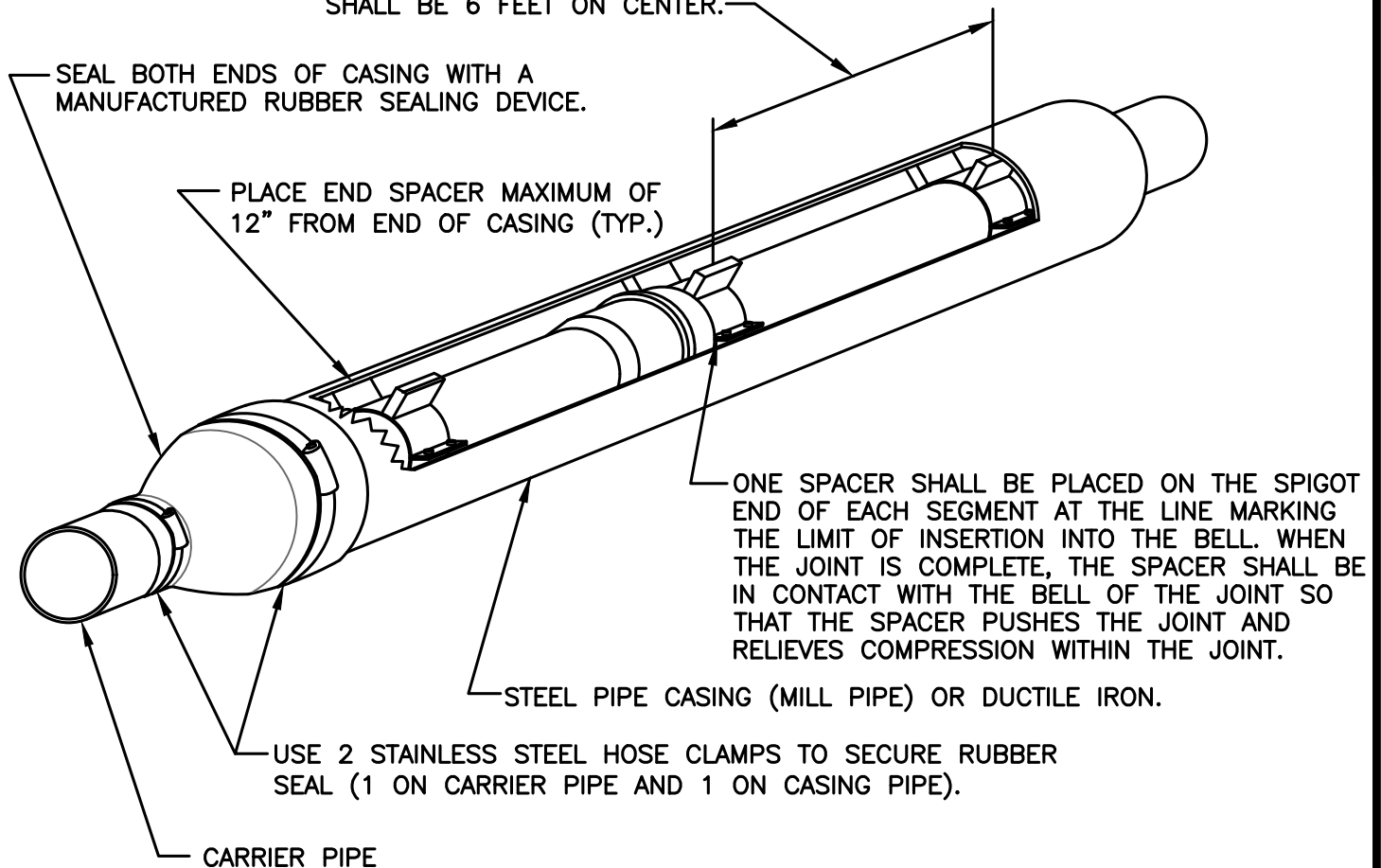
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DWG. NO.

S-29

MAXIMUM DISTANCE BETWEEN SPACERS
SHALL BE 6 FEET ON CENTER.

Attachment A



CARRIER PIPE DIAMETER	4"	6"	8"	10"	12"
CASING DIAMETER	10"	12"	14"	16"	20"
STEEL CASING THICKNESS	0.25"	0.25"	0.25"	0.25"	0.25"
SPACER BAND WIDTH	8"	8"	8"	8"	8"

NOTES:

1. RUNNER HEIGHT SHALL BE SIZED TO PROVIDE:
 - A. MIN. 0.75" BETWEEN CARRIER PIPE BELL AND CASING PIPE WALL AT ALL TIMES.
 - B. MIN. 1.00" CLEARANCE BETWEEN RUNNERS AND TOP OF CASING WALL TO PREVENT JAMMING DURING INSTALLATION.
2. MINIMUM RUNNER WIDTH SHALL BE 2 INCHES.
3. STEEL CASING DIAMETERS ARE "OUTSIDE DIAMETER" FOR 16" AND LARGER. .
4. SPACER BAND WIDTH SHALL BE 12" FOR CARRIER PIPES THAT ARE 36" DIAMETER OR GREATER.
5. FOR STEEL CASING, PROVIDE SHOP-APPLIED ANTI-CORROSIVE COATING ON CASING EXTERIOR CONFORMING TO AWWA 210. MINIMUM COATING 16 MILS DFT (DO NOT EXCEED MANUFACTURER'S MAXIMUM THICKNESS). PRODUCT SHALL BE EQUAL TO TNEVEC HI-BUILD TNEC-TAR SERIES 46H-413.



CITY OF NORTH BEND

CASING INSTALLATION

APPROVED:

MARK RIGOS, P.E.

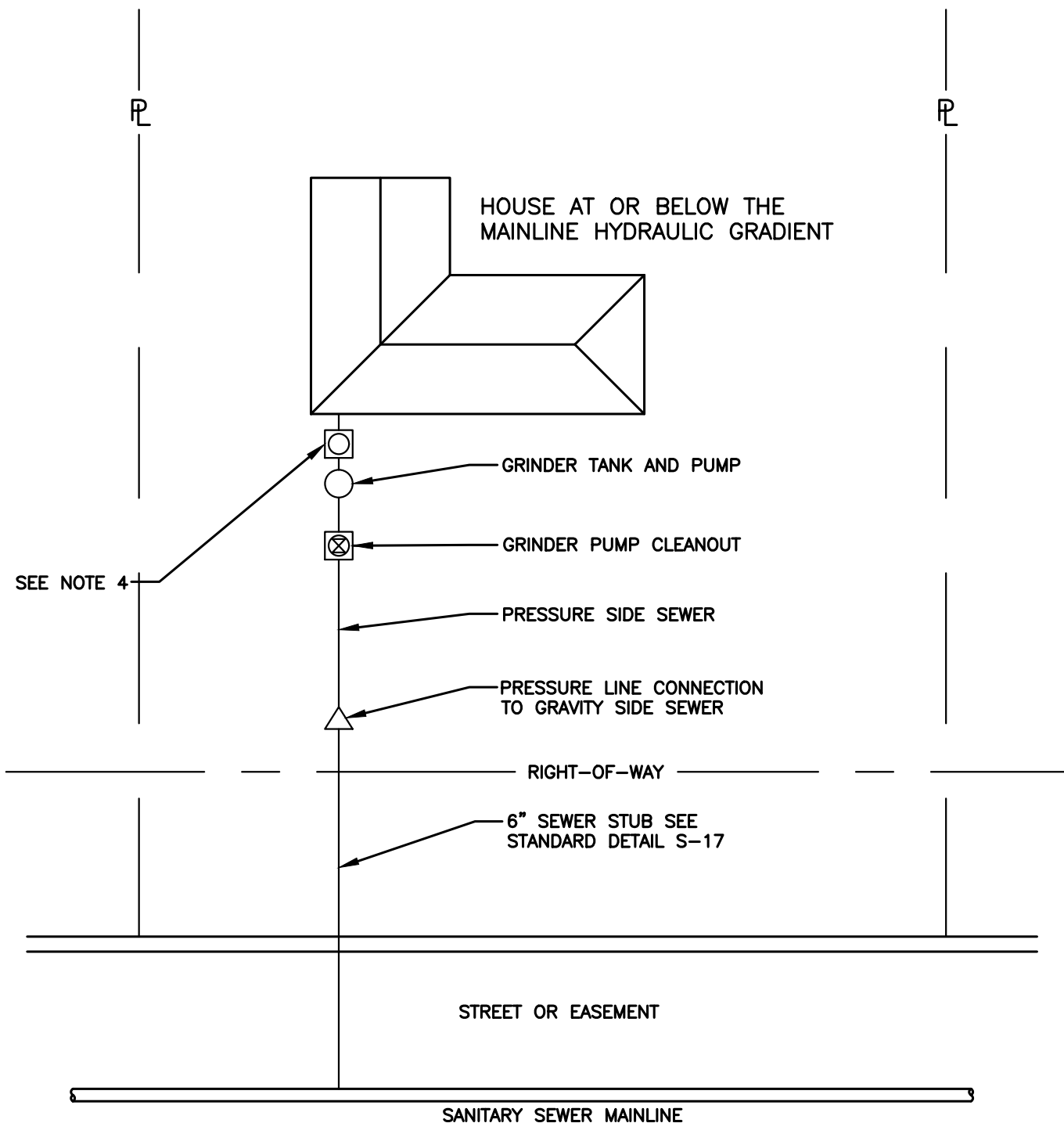
BY CITY

MAY 2018

DATE

DWG. NO.

S-30

**NOTES:**

1. PUMP SHALL NOT BE CONNECTED TO A SEPTIC TANK OF ANY SIZE.
2. CHECK VALVES AND PUMP ASSEMBLIES ARE PRIVATE AND SHALL BE THE PROPERTY OWNERS RESPONSIBILITY TO MAINTAIN.
3. PUMP BASIN SYSTEM SHALL BE DESIGNED BY THE PUMP MANUFACTURER.
4. ALL CLEANOUTS SHALL BE INSTALLED TO GRADE PER STANDARD DETAIL S-16
5. PRESSURE SIDE SEWER TO 6" GRAVITY STUB CONNECT MUST BE MADE WITH PVC REDUCER, NOT FLEXIBLE COUPLING.
6. PRESSURE SIDE SEWER TESTING SHALL BE IN ACCORDANCE WITH SECTION 7-05N OF THE STANDARDS.

PROVIDED FOR EXAMPLE ONLY, PROJECT SPECIFIC DETAILS WILL BE REQUIRED TO BE SUBMITTED FOR REVIEW AND ARE TO BE INCLUDED IN THE PROJECT PLANS.



CITY OF NORTH BEND

SINGLE HOME SEWER PUMP SYSTEM

APPROVED:

MARK RIGOS, P.E.

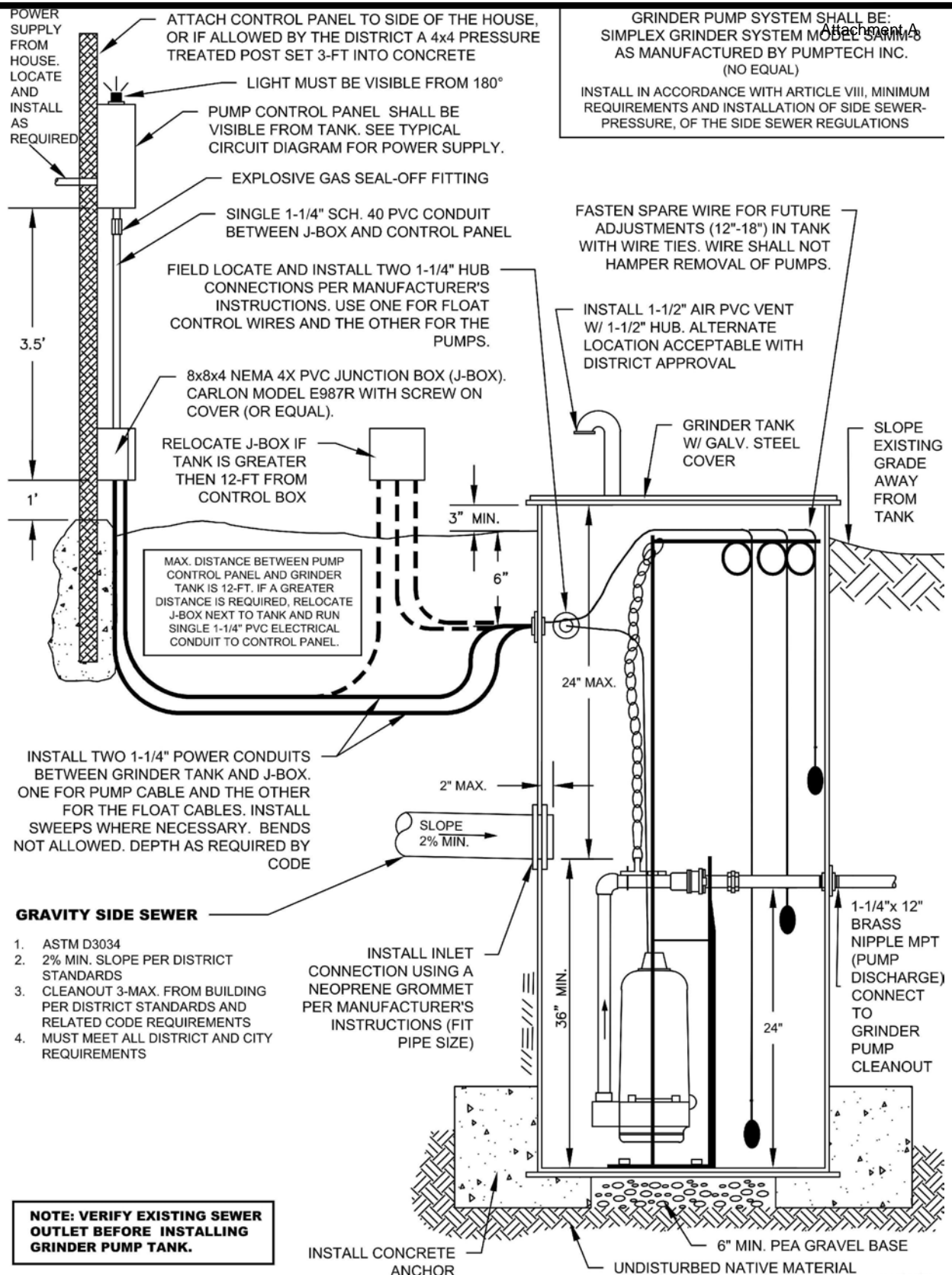
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MAY 2018

DATE

DWG. NO.

S-31



PROVIDED FOR EXAMPLE ONLY, PROJECT SPECIFIC DETAILS WILL BE REQUIRED TO BE SUBMITTED FOR REVIEW AND ARE TO BE INCLUDED IN THE PROJECT PLANS.



CITY OF NORTH BEND

GRINDER PUMP INSTALLATION DETAIL

APPROVED:

MARK RIGOS, P.E.

BY CITY

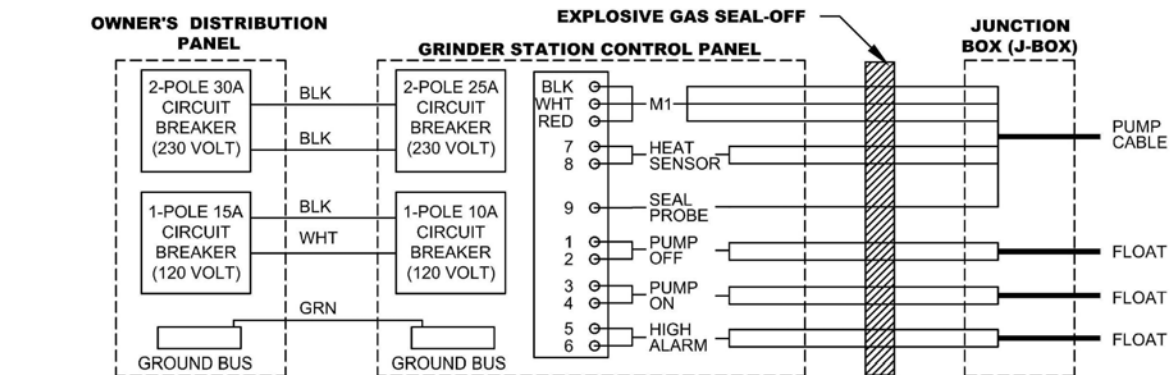
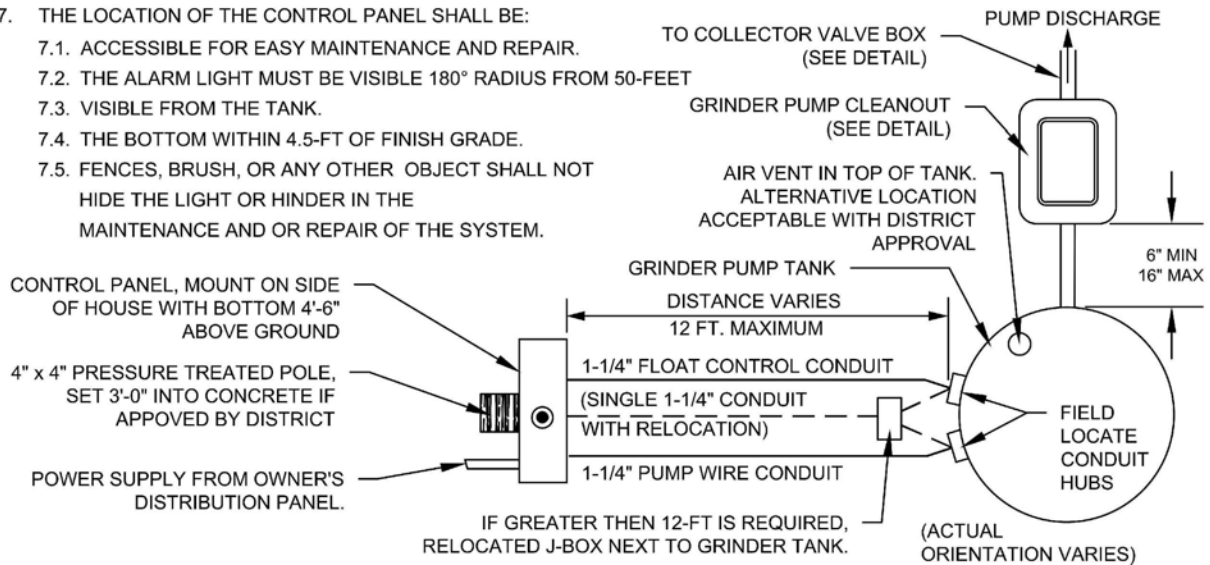
MAY 2018

DATE

DWG. NO.

S-32A

1. THE GRINDER TANK SHALL BE INSTALLED WITHIN 12-FEET OF THE PUMP CONTROL PANEL. WHERE THIS DISTANCE MUST BE EXCEEDED, THE INSTALLER SHALL OBTAIN DISTRICT APPROVAL AND THEN RELOCATE THE ELECTRICAL JUNCTION BOX (J-BOX) WITHIN 1-FT OF THE GRINDER TANK AND 6-INCHES ABOVE FINISH GRADE.
2. THE TANK LOCATION SHALL BE ACCESSIBLE FOR MAINTENANCE AND REPAIR BY DISTRICT PERSONNEL.
3. TANK COVER SHALL BE APPROX. 3" ABOVE FINISHED GRADE. FINISH GRADE SHALL BE FREE DRAINING AROUND AND AWAY FROM THE TANK SO THAT SURFACE WATER CANNOT POND AROUND THE STATION.
4. AIR VENT MAY BE INSTALLED IN ALTERNATIVE LOCATION WITH DISTRICT APPROVAL.
5. POSITION GRINDER PUMP TANK TO MINIMIZE NUMBER OF BENDS IN DISCHARGE PRESSURE PIPING. BENDS SHALL BE INSTALLED IN THE GRAVITY SIDE SEWER IF NEEDED.
6. NO PLANTS ARE TO BE LOCATED WITHIN 5-FT OF THE TANK. THE PROPERTY OWNER SHALL MAINTAIN A 5-FT CLEAR ZONE AROUND THE TANK.
7. THE LOCATION OF THE CONTROL PANEL SHALL BE:
 - 7.1. ACCESSIBLE FOR EASY MAINTENANCE AND REPAIR.
 - 7.2. THE ALARM LIGHT MUST BE VISIBLE 180° RADIUS FROM 50-FEET
 - 7.3. VISIBLE FROM THE TANK.
 - 7.4. THE BOTTOM WITHIN 4.5-FT OF FINISH GRADE.
 - 7.5. FENCES, BRUSH, OR ANY OTHER OBJECT SHALL NOT HIDE THE LIGHT OR HINDER IN THE MAINTENANCE AND OR REPAIR OF THE SYSTEM.

**ELECTRICAL NOTES:**

1. PUMP AND FLOAT CABLES TO BE EXTENDED INTO AND END AT THE J-BOX USING TWO SEPARATE CONDUITS; ONE FOR THE PUMP AND ONE FOR THE FLOATS. A SINGLE CONDUIT WITH INDIVIDUAL WIRES SHALL THEN EXTENDED FROM THE J-BOX TO PUMP CONTROL PANEL.
2. RUN FROM THE J-BOX TO THE PUMP CONTROL PANEL FOUR #10 AWG THHN WIRE FOR THE PUMP (WHITE, BLACK, RED, GROUND), TWO #14 AWG THHN WIRE WITH INDIVIDUAL COLORS FOR THE PUMP SENSOR AND PROBE, AND THREE SETS OF INDIVIDUAL COLORED #14 WIRE FOR THE FLOATS.
3. AN EXPLOSIVE GAS SEAL-OFF SHALL BE INSTALLED IN THE ELECTRICAL CONDUIT JUST PRIOR TO THE PUMP CONTROL PANEL.
4. INSTALLATION MUST CONFORM TO ALL REQUIREMENTS AND REGULATIONS OF THE NATIONAL ELECTRICAL CODE. AN ELECTRICAL PERMIT AND INSPECTION IS REQUIRED WHETHER THE WORK IS PERFORMED BY THE OWNER OR A CONTRACTOR.
5. THE OWNER'S DISTRIBUTION PANEL SHALL SUPPLY ONE SEPARATE 230-V SINGLE PHASE, 30-AMP CIRCUIT FOR THE PUMP, AND ANOTHER SEPARATE 120-VOLT, 15-AMP CIRCUIT FOR THE ALARM SYSTEM.
6. THE CONTRACTOR SHALL REFER TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR THE GRINDER PUMP CONTROL PANEL. THE TYPICAL CIRCUIT DIAGRAM SHOWN ABOVE IS ONLY AN EXAMPLE.

PROVIDED FOR EXAMPLE ONLY,
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CITY OF NORTH BEND

TYPICAL CIRCUIT DIAGRAM

APPROVED:

MARK RIGOS, P.E.

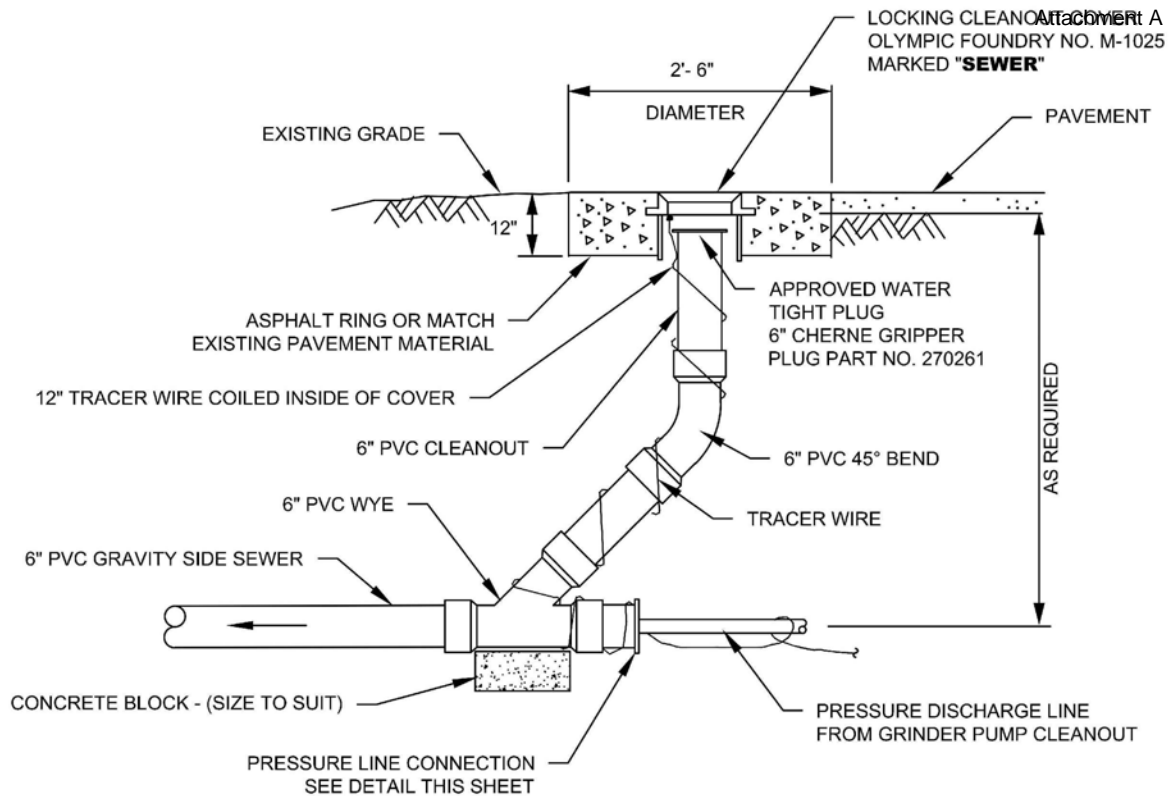
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DWG. NO.

S-32B

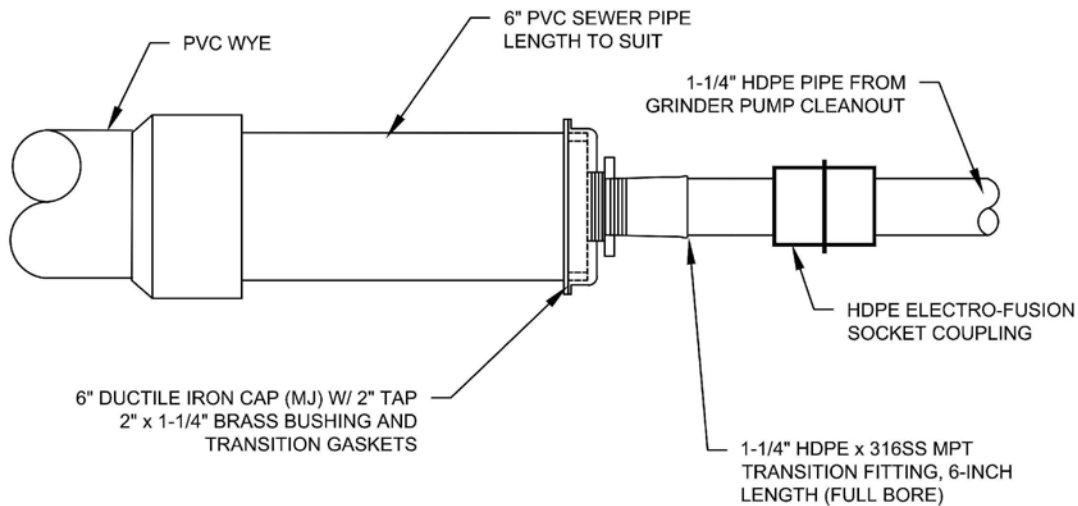


NOTES:

1. ALL PVC FITTINGS SHALL BE GASKETED
2. NO COLLECTION VALVE BOX REQUIRED WHEN CONNECTING TO A GRAVITY SIDE SEWER

REV. 2/20/10

PRESSURE LINE CONNECTION TO GRAVITY SANITARY SEWER DETAIL



REV. 2/20/10

PRESSURE LINE CONNECTION DETAIL

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CITY OF NORTH BEND

GRINDER PUMP INSTALLATION
DETAIL

APPROVED:

MARK RIGOS, P.E.

BY CITY

MAY 2018

DATE

DWG. NO.

S-32D

REFERENCE DOCUMENTS

PERFORMANCE AND MAINTENANCE BOND AGREEMENT



City of North Bend

Performance and Maintenance Bond Agreement

RE: North Bend Permit No.: _____

Applicant: _____

Project Address: _____

Estimated Cost of Completed Project: _____

This Performance and Maintenance Security Agreement (the “Agreement”) is made and entered on the last date set forth below, between the City of North Bend (“City”) and the above named Applicant (“Developer”).

RECITALS

A. Project. The undersigned Developer has applied to the City for a Performance and Maintenance Security Agreement for the project known as _____ (the “Project”), which is the subject of the permit identified above (the “Permit”) located at the address identified above and legally described in the attached **Exhibit A** (the “Property”).

B. Performance. Subject to the Permit approval granted by the City for the Project, the provisions of the North Bend Municipal Code (“NBMC”) and state law, the Developer will construct or install certain improvements and mitigation in connection with the Project, in accord with the improvements and mitigation identified on the Permit and as shown on the following approved plans: _____ approved on _____, 20__ (the “Improvements”).

C. Maintenance. Subject to the approval granted by the City for the Project, the provisions of the NBMC and state law, the Developer will maintain the Improvements in accord with the obligation identified in the Permit and as shown on the following approved plans: _____ approved on _____, 20__ (the “Maintenance”).

D. Code Provisions for Security. Performance and Maintenance of the Improvements are subject to the security requirements in the NBMC identified below:

Performance

- ☐ NBMC 12.24.15 Right of Way
- ☐ NBMC 14.05.045 Critical Areas
- ☐ NBMC 14.20.510 Shoreline Permit
- ☐ NBMC 17.08.130 Land Segregation
- ☐ NBMC 18.18.160 Landscaping
- ☐ NBMC 19.10.140 Drainage, Grading and Clearing

Maintenance

- ☐ NBMC 14.05.045 Critical Areas
- ☐ NBMC 18.18.150 Landscaping
- ☐ NBMC 19.10.110 Drainage, Grading and Clearing

E. Type of Security. Developer has elected, consistent with NBMC, to provide the City with the following type of security for this Agreement:

- ☐ Performance Bond
- ☐ Maintenance Bond

Developer hereby agrees and binds itself and its legal representatives, successors, and assigns as follows:

TERMS OF AGREEMENT

1. The Recitals set forth above are incorporated into the Agreement between the City, Developer and any third party who also signs this Agreement.
2. Developer and any third party shall signify their agreement to specific terms by signing under the terms section below that corresponds to the security chosen in recital E. above.

3. Terms - Performance Bond.

- a. Developer, as Principal, and _____ as Surety, hereinafter called Surety, are held and firmly bound unto the City, as Obligee, in the penal sum of XXXX (\$XX.XX) for payment where of Principal and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally as described in 3. b. – f. below.
- b. In accord with Recital D. above, Developer is required to provide the City with performance security for the Improvements to assure that all work or action identified in Recital B. are satisfactorily completed.

- c. After written notice from the City that Developer has failed to (a) complete all work or action on the Improvements satisfactorily, (b) pay all sums owing to contractors, subcontractors, materialmen, suppliers or others as a result of such work for which a lien against any City property, or property where the improvements are located, has arisen or may arise; or (c) obtain acceptance by the City for the Project; all on or before the time frame as set forth in the Permit, or any extension of time granted by the City in writing, Principal shall complete to the City's reasonable satisfaction (a) through (c) identified in the written notice by the deadline specified in the written notice, and repair any damage to other work resulting from the Principal's identified failure.
- d. If Principal does not complete the Improvements to the City's reasonable satisfaction as described in c. above, then within five (5) days after the City's written demand to Surety, Surety shall pay to the City all amounts necessary to complete the Improvements up to and including the full penal sum of this bond.
- e. This Agreement for bond shall remain in effect until the City determines in writing at its sole discretion that the Improvements have been completed, or _____ years from full execution of this Agreement, whichever occurs first.
- f. The City, Developer and Surety also agree to be bound by the General Terms in section 5. below.

IN WITNESS THEREOF, the parties hereto have executed this Agreement.

Principal: _____
 By: _____
 Title: _____
 Date: _____

Surety: _____
 By: _____
 Title: _____
 Date: _____

4. Terms - Maintenance Bond.

- a. Developer, as Principal, and _____ as Surety, hereinafter called Surety, are held and firmly bound unto the City, as Oblige, in the penal sum of XXXX (\$XX.XX) for payment where of Principal and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally as described in 4. b. – 4.f. below.
- b. Principal has constructed the Improvements for the Project under the Permit in accord with the requirements in Recital B.
- c. After written notice from the City of defects due to faulty materials or workmanship related to the constructed Improvements, Principal shall remedy such defects by the deadline specified in the City's written notice and to the City's reasonable satisfaction, and pay for any damage to other work resulting therefrom.

- d. If Principal does not so remedy such defects to the City's reasonable satisfaction, then within five (5) business days after the City's written demand to Surety, Surety shall pay to the City all amounts necessary to remedy such defects up to and including the full penal sum of this bond.
- e. This Agreement for bond shall remain in effect for _____ years from full execution of this Agreement.
- f. The City, Developer and Surety also agree to be bound by the General Terms in section 5. below.

IN WITNESS THEREOF, the parties hereto have executed this Agreement.

Principal: _____
 By: _____
 Title: _____
 Date: _____

Surety: _____
 By: _____
 Title: _____
 Date: _____

5. General Terms.

- a. The Developer shall indemnify and hold the City and its agents, employees, and/or officers harmless from, or shall process and defend at its own expense, all claims, damages, suits at law or equity, actions, penalties, losses, or costs of whatsoever kind or nature, brought against the City arising out of, in connection with, or incident to the execution of this Agreement and/or the Developer's performance or failure to perform any aspect of the Agreement. With respect to any such claim or suit brought against the City, Developer also waives its immunity under Title 51 RCW, the Industrial Insurance Act. This waiver is specifically negotiated between the parties.
- b. This Agreement shall be governed by and construed in accordance with the laws of the State of Washington. In the event any suit, arbitration, or other proceeding is instituted to enforce any term of this Agreement, the parties specifically understand and agree that venue shall be exclusively in King County, Washington. The prevailing party in any such action shall be entitled to its attorneys' fees, expert witness fees, and costs of suit. This Agreement contains the entire agreement between the parties hereto, and no other agreements, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or bind any of the parties hereto. The provisions of this Agreement shall not be construed against either party. If any of the provisions of this Agreement are held to be invalid or unenforceable, the remaining provisions will nevertheless continue to be valid and enforceable.
- c. Any failure by the Developer to comply with the terms of this Agreement in a timely manner shall constitute default. Any action or inaction by the City following any default in any term or condition of this Agreement shall not be deemed to waive any rights of the City pursuant to this Agreement.

d. The Developer shall pay all additional costs of the City incurred in the administration of the Agreement, including monitoring by the City as required. Said costs will be paid from the Project permitting deposit. Should there not be sufficient funds in the Project permitting deposit to cover such additional costs, then said costs shall be paid by Developer after receipt of invoice from the City. The Director of Planning and/or the Director of Public Works and/or their designees shall periodically inspect the work required hereunder and inspect completed improvements. Notwithstanding the foregoing, if Developer fails to pay for said inspections, the City may use funds from section 3.d. or 4.d. as applicable to cover said costs. This provision shall not be construed as creating any obligation on the City, its employees, agents and representatives to perform such work.

e. In the event the Developer fails to satisfactorily complete the obligations as described in the City's written notice, the City's employees and agents are hereby authorized to enter onto the Property and perform such work. This provision shall not be construed as creating any obligation on the City, its employees, agents and representatives to perform such work.

f. Funds obtained by the City pursuant to 3.d. and 4.d. above may be used by the City to remedy said defects and pay any and all sums owing to contractors, suppliers, laborers, materialmen, subcontractors or others as a result of such work for which a lien against any City property or property where the Improvements are located, has arisen or may arise. Further, said funds may be used to cover the cost of correcting any damage which may occur off-site due to defects, including damage, if any, to public property. This provision shall not be construed as creating any obligation on the City, its employees, agents and representatives to perform such work.

g. Written notice to all parties shall be by prepaid first class mail to the address specified below or as subsequently amended in writing. Notice shall be considered delivered three (3) days after having been deposited in the mail:

City

Developer

Surety

IN WITNESS THEREOF, the parties hereto have executed this Agreement.

CITY OF NORTH BEND

By: _____
Its _____

Institution Notary

STATE OF WASHINGTON

County of _____

I certify that I know or have satisfactory evidence that _____
is the person who appeared before me, and said person acknowledged that (he/she) is
authorized to act on behalf of _____, the Financial Institution which
signed this instrument and acknowledged it to be the Institution's free and voluntary act
for uses and purposes mentioned in the instrument.

Dated: _____, 20____

Signature: _____

Name Printed: _____

Title: _____

My appointment expires: _____

Developer Notary

STATE OF WASHINGTON)

) ss.

COUNTY OF KING)

I certify that I know or have satisfactory evidence that _____ is the person
who appeared before me, and said person acknowledged that he/she signed this
instrument, on oath stated that he/she was authorized to execute the instrument on behalf
of _____ for the uses and purposes mentioned in this instrument.

DATED: _____.

(Signature of Notary Public)

(Printed Name of Notary Public)

Commission Expires: _____

City Notary

STATE OF WASHINGTON)

) ss.

COUNTY OF KING)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute the instrument on behalf of _____ for the uses and purposes mentioned in this instrument.

DATED: _____.

(Signature of Notary Public)

(Printed Name of Notary Public)

Commission Expires: _____

**PERFORMANCE AND MAINTENANCE
ASSIGNMENT OF FUNDS AGREEMENT**



City of North Bend

Performance and Maintenance Assignment of Funds Agreement

RE: North Bend Permit No.: _____
 Applicant: _____
 Project Address: _____
 Estimated Cost of Completed Project: _____

This Performance and Maintenance Assignment of Funds Agreement (the “Agreement”) is made and entered on the last date set forth below, between the City of North Bend (“City”) and the above named Applicant (“Developer”).

RECITALS

A. Project. The undersigned Developer has applied to the City for an Assignment of Funds Agreement for the project known as _____ (the “Project”), which is the subject of the permit identified above (the “Permit”) located at the address identified above and legally described in the attached **Exhibit A** (the “Property”).

B. Performance. Subject to the Permit approval granted by the City for the Project, the provisions of the North Bend Municipal Code (“NBMC”) and state law, the Developer will construct or install certain improvements and mitigation in connection with the Project, in accord with the improvements and mitigation identified on the Permit and as shown on the following approved plans: _____ approved on _____, 20__ (the “Improvements”).

C. Maintenance. Subject to the approval granted by the City for the Project, the provisions of the NBMC and state law, the Developer will maintain the Improvements in accord with the obligation identified in the Permit and as shown on the following approved plans: _____ approved on _____, 20__ (the “Maintenance”).

D. Code Provisions for Security. Performance and Maintenance of the Improvements are subject to the security requirements in the NBMC identified below:

Performance

- ☐ NBMC 12.24.15 Right of Way
- ☐ NBMC 14.05.045 Critical Areas
- ☐ NBMC 14.20.510 Shoreline Permit
- ☐ NBMC 17.08.130 Land Segregation
- ☐ NBMC 18.18.160 Landscaping
- ☐ NBMC 19.10.140 Drainage, Grading and Clearing

Maintenance

- ☐ NBMC 14.05.045 Critical Areas
- ☐ NBMC 18.18.150 Landscaping
- ☐ NBMC 19.10.110 Drainage, Grading and Clearing

E. Type of Security. Developer has elected, consistent with NBMC, to provide the City with the following type of security for this Agreement:

- ☐ Assignment of Funds to Secure Performance
- ☐ Assignment of Funds to Secure Maintenance

Developer hereby agrees and binds itself and its legal representatives, successors, and assigns as follows:

TERMS OF AGREEMENT

1. The Recitals set forth above are incorporated into the Agreement between the City, Developer and any third party who also signs this Agreement.

2. Developer and any third party shall signify their agreement to specific terms by signing under the terms section below that corresponds to the security chosen in Recital E, above.

3. Terms - Assignment of Funds/Letter of Credit in Lieu of Bond Securing Performance.

a. _____ (“Financial Institution”) is a financial institution qualified to hold escrow accounts and to do business in the State of Washington.

b. Developer has establish an escrow account in the form of an assignment of savings account or irrevocable letter of credit with the Financial Institution in the amount of \$ _____, in Account No. _____ (the “Account”). The escrow account agreement is attached as **Exhibit B** to this Agreement. Developer and Financial Institution bind themselves, their heirs, executors,

administrators, successors, and assigns, jointly and severally as described in Subsections 3(c) – (g) below.

c. At no time shall any portion of the sums in the Account be released without written authorization from the City. The Account shall represent the costs of the Improvements as identified in Recital B of this Agreement. If, after final review of Developer's cost estimate by the City Engineer, the cost estimates are deemed low, then the Developer shall add funds to the Account to make up the deficiency in an amount as determined by the City Engineer. Said final review by the City Engineer shall take place within thirty (30) days from the date of execution of this Agreement. In addition, in the event bids received for Improvements and accepted by the Developer are in excess of previous estimates, the amount in escrow shall be increased by the excess amount.

d. After written notice from the City that Developer has failed to (a) complete all work or action on the Improvements satisfactorily; (b) pay all sums owing to contractors, subcontractors, materialmen, suppliers or others as a result of such work for which a lien against any City property, or property where the improvements are located, has arisen or may arise; or (c) obtain acceptance by the City for the Project; all on or before the time frame as set forth in the Permit, or any extension of time granted by the City in writing, Developer shall complete to the City's reasonable satisfaction all items identified in the written notice by the deadline specified in the written notice, and repair any damage to other work resulting from the Developer's failures identified in the written notice.

e. In the event the Developer has not completed all items identified in the written notice pursuant to Subsection 3(d) of this Agreement, the Financial Institution shall remit to the City within five (5) working days of the City's written demand, the amount of funds in the Account, or such lesser amount as may be specified in the demand. The Financial Institution agrees that it shall have no duty or right to evaluate the correctness or appropriateness of any such notice or determination by the City, and shall not interplead, or in any manner, delay payment of said funds to the City.

f. The Account and this Agreement shall remain in effect until the City determines in writing at in its sole discretion that the Improvements have been completed, or _____ years from full execution of this Agreement, whichever occurs first.

g. The City, Developer and Financial Institution agreed to also be bound by the General Terms in Section 5 of this Agreement.

4. Terms - Assignment of Funds/Letter of Credit in Lieu of Bond Securing Maintenance.

a. _____ ("Financial Institution") is a financial institution qualified to hold escrow accounts and to do business in the State of Washington.

b. Developer has establish an escrow account in the form of an assignment of savings account or irrevocable letter of credit with the Financial Institution in the amount of \$ _____, in Account No. _____ (the "Account"). The escrow account agreement is attached as Exhibit B to this Agreement. Developer and Financial Institution bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally as described in Subsections 4(c) - (g) of this Agreement.

c. At no time shall any portion of the sums in the Account be released without written authorization from the City. Such Account shall represent the costs of the Maintenance as identified in Recital C of this Agreement.

d. After written notice from the City of defects due to faulty materials or workmanship related to the constructed Improvements, Developer shall, by the deadline identified in the written notice, remedy such defects to the City's reasonable satisfaction and pay for any damage to other work resulting therefrom.

e. If Developer does not so remedy such defects to the City's reasonable satisfaction, then within five (5) business days after City's written demand to Financial Institution, Financial Institution shall pay to the City from the Account all amounts necessary to remedy such defects up to and including the full penal sum in the Account. The Financial Institution agrees that it shall have no duty or right to evaluate the correctness or appropriateness of any such notice or determination by the City, and shall not interplead, or in any manner, delay payment of said funds to the City.

f. The Account and this Agreement shall remain in effect for a period of ____ () years from the written acceptance of the Improvements by the City.

g. The City, Developer and Financial Institution agree to also be bound by the General Terms in Section 5 of this Agreement.

5. General Terms.

a. The Developer shall indemnify and hold the City and its agents, employees, and/or officers harmless from, or shall process and defend at its own expense, all claims, damages, suits at law or equity, actions, penalties, losses, or costs of whatsoever kind or nature, brought against the City arising out of, in connection with, or incident to the execution of this Agreement and/or the Developer's performance or failure to perform any aspect of the Agreement. With respect to any such claim or suit brought against the City, Developer also waives its immunity under Title 51 RCW, the Industrial Insurance Act. This waiver is specifically negotiated between the parties.

b. This Agreement shall be governed by and construed in accordance with the laws of the State of Washington. In the event any suit, arbitration, or other proceeding is instituted to enforce any term of this Agreement, the parties specifically understand and agree that venue shall be exclusively in King County, Washington. The prevailing party

in any such action shall be entitled to its attorneys' fees, expert witness fees, and costs of suit. This Agreement contains the entire agreement between the parties hereto, and no other agreements, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or bind any of the parties hereto. The provisions of this Agreement shall not be construed against either party. If any of the provisions of this Agreement are held to be invalid or unenforceable, the remaining provisions will nevertheless continue to be valid and enforceable.

c. Any failure by the Developer to comply with the terms of this Agreement in a timely manner shall constitute default. Any action or inaction by the City following any default in any term or condition of this Agreement shall not be deemed to waive any rights of the City pursuant to this Agreement.

d. The Developer shall pay all additional costs of the City incurred in the administration of the Agreement, including monitoring by the City as required. Said costs will be paid from the Project permitting deposit. Should there not be sufficient funds in the Project permitting deposit to cover such additional costs, then said costs shall be paid by Developer after receipt of invoice from the City. The Director of Planning and/or the Director of Public Works and/or their designees shall periodically inspect the work required hereunder and inspect completed improvements. Notwithstanding the foregoing, if Developer fails to pay for said inspections, the City may use funds from those deposited pursuant to Sections 3(b) or 4(b) of this Agreement, as applicable, to cover said costs. This provision shall not be construed as creating any obligation on the City, its employees, agents and representatives to perform such work.

e. In the event the Developer fails to satisfactorily complete the obligations as described in the City's written notice, the City's employees and agents are hereby authorized to enter onto the Property and perform such work. This provision shall not be construed as creating any obligation on the City, its employees, agents and representatives to perform such work.

f. Funds obtained by the City pursuant to Sections 3(b) or 4(b) of this Agreement may be used by the City to remedy said defects and pay any and all sums owing to contractors, suppliers, laborers, materialmen, subcontractors or others as a result of such work for which a lien against any City property or property where the Improvements are located, has arisen or may arise. Further, said funds may be used to cover the cost of correcting any damage which may occur off-site due to defects, including damage, if any, to public property. This provision shall not be construed as creating any obligation on the City, its employees, agents and representatives to perform such work.

g. Written notice to all parties shall be by prepaid first class mail to the address specified below or as subsequently amended in writing. Notice shall be considered delivered three (3) days after having been deposited in the mail:

City of North Bend:

DEVELOPER

By: _____
Its: _____

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____ of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: _____

Print Name: _____
 NOTARY PUBLIC in and for the State of
 Washington, residing at _____
 My commission expires: _____

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FINANCIAL INSTITUTION

By: _____
Its: _____

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____ of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: _____

Print Name: _____
 NOTARY PUBLIC in and for the State of
 Washington, residing at _____
 My commission expires: _____

UTILITY EASEMENT

EASEMENT TRANSMITTAL

Easement No.: _____

Date: _____

City: NORTH BEND

Title Policy No.: _____

Project: _____

Drawing No.: _____

Base Map: _____

Names and Addresses of Parties Involved:

Permanent Easement: _____ Square Feet _____

Temporary Permit: _____ Square Feet _____

Access Easement: _____ Square Feet _____

Comments:

Three copies of the aforementioned easement are attached for signatures and recording.

Recorded on Design Drawing By: _____

Date: _____

Recorded in Easement Book By: _____

Date: _____

Transmittal: NORTH BEND PUBLIC WORKS

By: _____

Filed for Record at
the request of:
CITY OF NORTH BEND
PUBLIC WORKS
P.O. Box 896
1155 E. North Bend Way
North Bend, WA 98045

Easement No.:

Project:

Tax Parcel ID#:

Abbrev. Legal:

Grantor(s): [name]
 [address]

Grantee: CITY OF NORTH BEND

AGREEMENT FOR EASEMENT

THIS AGREEMENT, made this _____ day of _____,
20____, by and between CITY OF NORTH BEND, a municipal corporation of King
County, Washington, hereinafter termed the "City", and [property owner names],
hereinafter termed "Grantor",

WHEREAS, Grantor(s) is/are the owner(s) of land at approximately [street
address or location general description], legally described as follows:

[property legal description]

Easement No. _____

WHEREAS, the City requires an easement for (check those that apply)

- ☐ Sanitary sewer line and appurtenances
- ☐ Water main and appurtenances
- ☐ Storm drainage main and appurtenances

across Grantor's property at a location more specifically described herein below; and

WHEREAS, Grantor has title to said real property and is authorized to grant and convey this easement to the City.

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration in hand paid, receipt of which is hereby acknowledged, and in consideration of the performance by the City of the covenants, terms and conditions hereinafter set forth, Grantor hereby grants, conveys and quitclaims to the City the following easement:

That portion of the above-described real property further described as follows:

[easement legal description]

1. CITY'S USE OF PROPERTY. Said easement is for the purpose of installing, constructing, operating, inspecting, maintaining, removing, repairing, replacing and using gravity and pressure sanitary sewer mains, manholes, water lines, storm drainage pipes, catch basins, swales, ponds, vaults and appurtenances thereto including all valves and fire hydrants (the "facilities"), together with the nonexclusive right of ingress to and egress from said portion of Grantor's property for the foregoing purposes.

2. USE OF PROPERTY BY GRANTOR. Grantor shall retain the right to use the surface of the easement if such use does not interfere with installation or maintenance of the facilities. Grantor shall not erect buildings or structures of a permanent nature; shall not install any other improvements including trees, large shrubbery, or fences; and shall not change surface grades, except as approved in advance by the City, in any manner which would unreasonably interfere with ingress, egress and access by the City for installation and/or normal maintenance of the facilities. Such buildings, structures or improvements will be deemed an encroachment upon the City's rights, and Grantor shall be obligated to remove such encroachments at Grantor's expense. Further, the provisions of Paragraph 4 hereof as to restoration shall not apply to any such encroachments in the easement area.

Easement No. _____

Provided, however, that fences may be constructed which provide gate or other access approved in advance by the City.

3. RESTORATION AFTER ORIGINAL CONSTRUCTION. For original construction, Grantor's property will be restored to a condition as good as or better than it was prior to the entry by the City. Where possible, photographs will be taken prior to construction to assure the completeness of restoration. Final restoration shall include, as appropriate, sod replacement in existing lawns, hydro-seeding in unimproved areas, and replanting or replacement of existing shrubs and bushes, where such will not unreasonably interfere with the City's use of the easement. Fences, rockeries, and concrete, asphalt and/or gravel driveways which do not unreasonably interfere with the City's use of the easement will be repaired or replaced. Large trees that exist within the easement area may be permanently removed during original construction unless otherwise noted in this easement document.

4. RESTORATION AFTER MAINTENANCE. If Grantor's property is disturbed by the maintenance, removal, repair, or replacement of the facilities, the City shall restore the easement area to a condition as good as or better than it was prior to entry for such purpose by the City.

5. ATTORNEY'S FEES. In case suit or action is commenced by either party, or their successors and/or assigns, to enforce any rights under this easement, or regarding an encroachment on the easement, in addition to costs provided by statute, the substantially prevailing party shall be entitled to an award of attorney's fees in such sum as the Court may adjudge just and reasonable.

6. EASEMENT TO BIND SUCCESSORS. This easement is permanent and shall terminate only upon agreement of the parties hereto, their successors and/or assigns. This easement, during its existence, shall be a covenant running with the land and shall be binding on the successors, heirs and assigns of the parties hereto.

7. EXEMPTION FROM EXCISE TAX. The City is a municipal corporation with powers of eminent domain. This easement is granted for a public purpose. The City shall hold Grantor harmless from the imposition or payment of any excise tax based upon the conveyance of this easement.

Easement No. _____

IN WITNESS WHEREOF, I/we have set my/our hand(s) and seal(s) this _____ day of _____, 20____.

Grantor

Grantor

STATE OF WASHINGTON)

COUNTY OF KING)^{ss.}

On this _____ day of _____, 20____, before me personally appeared _____ (and) _____, to me known to be the individual(s) described in and who executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Grantors, for the uses and purposes therein mentioned.

WITNESS my hand and official seal hereto affixed the day and year above written.

NOTARY PUBLIC in and for the State of Washington

Residing at: _____

My commission expires: _____

Easement No. _____

IN WITNESS WHEREOF, I/we have set my/our hand(s) and seal(s) this _____ day of _____, 20____.

(Corporation Name) _____

President

Secretary

STATE OF WASHINGTON)

COUNTY OF KING) ss.

On this _____ day of _____, 20____, before me personally appeared _____ (and) _____, to me known to be the President and Secretary, respectively, of _____ the corporation that executed the foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned.

WITNESS my hand and official seal hereto affixed the day and year above written.

NOTARY PUBLIC in and for the State of Washington

Residing at: _____

My commission expires: _____

Easement No. _____

IN WITNESS WHEREOF, I/we have set my/our hand(s) and seal(s) this _____ day of _____, 20____.

Corporation Name (LLC)

Member

Member

STATE OF WASHINGTON)

COUNTY OF KING)^{ss.}

On this ____ day of _____, 20____, before me personally appeared (and) _____, to me known to be the Manager and/or Member(s), respectively, of _____, LLC, A Washington Limited Liability Company, the Company that executed the foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Company, for the uses and purposes therein mentioned, and on oath stated that they were authorized to execute said instrument.

WITNESS my hand and official seal hereto affixed the day and year above written.

NOTARY PUBLIC in and for the State of Washington

Residing at: _____

My commission expires: _____

PRE-APPLICATION CHECKLIST

PLAN REVIEW CHECKLIST

FINAL INSPECTION CHECKLIST

SUBMITTAL STANDARDS

SMALL SITE TESC PLAN

SMALL SITE STORM DRAINAGE HANDOUT

SITE DEVELOPMENT CHECKLIST

APPENDIX L

MAINTENANCE FORMS

CITY OF NORTH BEND PUBLIC WORKS
FIRE HYDRANT FIELD INSPECTION REPORT

HYD. # _____ LOCATION _____

VALVE LOCATION _____ HYD. MAKE _____

DATE _____

CONDITION	STATUS	COMMENTS
PAINT		
CAPS		
CHAINS		
STEM		
PACKING		
TOP NUT		
VALVE		
VALVE SEAT		
CONDITION OF WATER		
MINUTES FLUSHED		
INSPECTED BY		

REMARKS:

CITY OF NORTH BEND PUBLIC WORKS WATER BLOW OFF FIELD INSPECTION REPORT

BLOW OFF NO. _____ ADDRESS _____

LOCATION _____

ENCLOSURE TYPE _____

VALVE TYPE _____ SIZE _____ STAND PIPE SIZE _____

DATE _____

CONDITION	STATUS	COMMENTS
CONDITION OF WATER		
STEM		
PACKING		
OPERATING NUT		
VALVE (OPEN OR CLOSED)		
INSPECTED BY		

DATE: _____

CONDITION	STATUS	COMMENTS
CONDITION OF WATER		
STEM		
PACKING		
OPERATING NUT		
VALVE (OPEN OR CLOSED)		
INSPECTED BY		

REMARKS:

CITY OF NORTH BEND AIR VAC RELIEF VALVE INSPECTION REPORT

Attachment A

Valve #: _____ Type: _____ Size: _____

Location: _____

Valve Enclosure Type: _____

Date Inspected:									
Repairs Required	Yes	No	Description:						
Replaced	Yes	No	Description:						
Valve Operational	Yes	No	Description:						

Attachment A

Remarks: _____

APPENDIX M

**WATER MAIN BREAK RESPONSE PLAN
AND BOIL WATER NOTICE**

WATER MAIN BREAK RESPONSE PLAN

The purpose of this water main break plan is to establish a clear procedure for responding to a water main break in a manner that safeguards the City and its customer.

Procedure

1. Investigate the reported water main break.
2. Throttle water main to minimize damage.
3. Turn source pumps off.
4. Notify Kraig Kramer, Water System Lead, 425-888-7655
5. Dispatch 3-5 employees from public works team to the site.
6. Call for utility locates 881 or (800) 424-5555.
7. Notify The following agencies and personnel:
 - a. The appropriate fire department(s) base on break location:
Eastside Fire and Rescue, (425) 313-3200
Water pressure and fire flow will be compromised in affected area.
 - b. Don DeBerg, City Engineer, (425) 888-7652
 - c. Mark Pray, superintendent, (425) 888-7654
8. Notify all affected customers in person that the water main has been shut off for emergency repairs.
9. Shut off angle stops without check valves at all effected meters prior to water main shut down.
10. Make repairs to the water main. Disinfect repair parts with one percent chlorine solution.
11. Flush the affected area of the distribution system.
12. Turn angle stops back on.
13. If a negative pressure event was created by shutting the water main down completely and pit water was uncontrolled, it will be necessary to deliver precautionary tags to all affected customers.
14. Notify customers that the water main is back on and advise them to use boiled or bottled water for consumption until further notice (hand them a tag). If no one is home, hang a precautionary tag on their door knob.

Tag Reads:

“A Message from the City of North Bend Public Works

The water main has been repaired and flushed and is back in service. A water sample has been taken for analysis. The test results should be back on _____ by _____ am/pm. Water use can continue as normal EXCEPT for water used for consumption. The possibility of contamination due to a water outage is low, but as a precaution we ask that you boil water that will be used for drinking, cooking, or brushing teeth or use bottled water until the test results come back from the testing facility. We are sorry for the inconvenience.

Today's date _____

If you have additional questions or comments call:
Water Supervisor, Kraig Kramer, (425) 888-7655

15. Take coliform samples to testing facility for analysis.

16. Call out Street Sweeper and Vactor Truck if necessary for cleanup.
17. After cleanup is complete, turn source pumps back on.
18. When the water testing facility declares the coliform samples are satisfactory, notify affected customers of the results (hand them a tag). If no one is home, hang a tag on their door knob.

Tag Reads:

“A Message from the City of North Bend Public Works

The test results from the water quality samples taken after the recent water main break on _____ have returned from the testing facility as satisfactory. The water meets State and Federal standards. Water used for consumption no longer needs to be boiled. All water use can return to normal.

Today's date _____”

19. If a negative pressure event was created with uncontrolled pit water, the Water Supervisor will notify the Washington State Health Department, and Public Health Seattle – King County of the incident. In the Water System Supervisor is absent a Water Quality Specialist will notify the Health Departments.

Contact information is provided below:

Steve Hulsman
Washington State Health Department
Phone: (253) 395-6777
Email steve.hulsman@doh.wa.gov

DRINKING WATER WARNING

City of North Bend water is contaminated with [fecal coliform/*E. coli*]

BOIL YOUR WATER BEFORE USING

[Fecal coliform or *E. coli*] bacteria were found in the water supply on [date]. These bacteria can make you sick, and are a particular concern for people with weakened immune systems.

What should I do?

- **DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST.** Bring all water to a boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation **until further notice**. Boiling kills bacteria and other organisms in the water.

*Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.*

- The symptoms above are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice. People at increased risk should seek advice about drinking water from their health care providers.

What happened? What is being done?

Bacterial contamination can occur when increased run-off enters the drinking water source (for example, following heavy rains). It can also happen due to a break in the distribution system (pipes) or a failure in the water treatment process.

[Describe corrective action.] We will inform you when tests show no bacteria and you no longer need to boil your water. We anticipate resolving the problem within [estimated time frame].

For more information, please contact [name of contact] at [phone number] or [mailing address]. General guidelines on ways to lessen the risk of infection by microbes are available from the EPA Safe Drinking Water Hotline at 1(800) 426-4791.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by **City of North Bend**. State Water System ID#: **60100**. Date distributed: [date]

APPENDIX N

**CHLORINE STORAGE AND
USE PROCEDURES MANUAL**



CITY OF NORTH BEND PUBLIC WORKS
WATER DIVISION
CHLORINE STORAGE AND USE PROCEDURES



Effective March 2020

NORTH BEND WATER DIVISION CHLORINE STORAGE AND USE PROCEDURES

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CITY OF NORTH BEND PUBLIC WORKS WATER DIVISION CHLORINE STORAGE AND USE PROCEDURES

A. INTRODUCTION

The City of North Bend Water Division has one gas chlorination treatment facility within its potable water distribution system. The Mt Si Springs chlorination station is located at the 43500 block of SE 92nd Street in North Bend, WA.

This facility is monitored for chlorine leaks by a gas detector that initiates alarms and other actions as described in the following procedures. All Water Division personnel shall be required to know these procedures before entering a chlorination station.

B. ENTERING A CHLORINATION STATION FOR MAINTENANCE OR CYLINDER CHANGES

1. Notify a staff member to monitor via phone or public works radio prior to entering a chlorine station. Always work in teams of two, one person being an attendant who waits outside of the chlorine gas room.
2. Check the exterior chlorine readout. If chlorine is present, push the emergency shut off button. Leave the area and follow the emergency procedures in Step 8. Otherwise, go to step 4.
3. Turn on the exhaust fan switch.
4. Open and enter the door to the viewing room.
5. Turn on all lights and exhaust fans.
6. Look through the viewing room observation window and observe the chlorine alarm system light. If the chlorine alarm system is activated, go to step 8. Otherwise go to step 9.
7. EMERGENCY PROCEDURES: If you notice the chlorine alarm light is blinking or there is an audible alarm, or if you see any green-yellowish gas in the gas room, leave the station immediately and notify Eastside Fire and Rescue (911). Tell them the wind direction and temperature and if you need medical assistance for chlorine exposure. The fire department shall initiate emergency procedures for a chlorine leak at a chlorination station. Move upwind and proceed to the pre-designated meeting point with the fire department, if wind direction allows. Notify the fire department of your final location. If possible, bring the emergency procedures binder with you, which is located in all water division trucks. Water Division personnel shall not enter a chlorination station while there is a chlorine alarm, unless so approved by the fire department. Water Division personnel shall not attempt the rescue of a chlorine

exposure victim from a gas room. If necessary, the fire department shall stop a chlorine leak and determine when it is safe for Water Division personnel to enter a gas room.

8. Enter the gas room only after the area has been monitored through the viewing room window and determined to be safe. If a leak is detected at any time, immediately leave the station and follow the procedures in Step 8. Exception: The release of a small amount of chlorine gas when breaking the seal of the outlet cap to the valve on top of the chlorine cylinder or conducting other maintenance.

C. LEAVING A CHLORINATION STATION AFTER MAINTENANCE OR CYLINDER CHANGES

1. Secure the locks on the gas room door.
2. Turn off the lights and fans in the viewing room, and secure the locks on the door.
3. Lock the chain-link fence gates behind you as you leave.
4. Notify the Water Division staff member/city staff member designated to monitor via phone or public works radio that you are clear of the chlorine station.

D. MAINTENANCE

1. Tools and Materials Needed:
 - a. Special Chlorine Institute wrenches
 - b. Aqueous ammonia
 - c. Replacement lead washers
 - d. Steel wool
2. Required Personal Protective Equipment:
 - a. Neoprene rubber gloves
 - b. Tychem® SL coveralls
 - c. Full face SCBA
3. Daily Maintenance:
 - a. Check for leaks in the gas room with Aqueous Ammonia.
 - b. Record amount of Chlorine used.
 - c. Activate eyewash/shower unit valve momentarily to check for flow.
 - d. Check Operation of chlorine equipment.
 - e. Do normal housekeeping.
4. Monthly Maintenance:
 - a. Test operation of the chlorine leak detector. Verify that the water operations received an alarm. Log this on the paperwork in the viewing room.
 - b. Check calibration of the exterior chlorine readout.

5. Quarterly Maintenance:
 - a. Inspect full face SCBA for defects.
 - b. Check eyewash/shower unit water flow volume and record the results. Verify that water operations received an alarm.
 - c. Alternate chlorinators and booster pumps.
6. Annual Training:
 - a. Review all chlorine leak response, storage, and use procedures with Water Operations personnel.
 - b. Meet with Eastside Fire & Rescue for annual pre-emergency planning session to include a tour of the Mt Si Springs facilities and provide any updates to these procedures.
7. Annual Tier II Reporting:
 - a. Shall submit Tier II report annually to state and local emergency management agencies on or before March 1.
 - b. As part of the annual pre-emergency planning session with Central Pierce and East Pierce, provide each entity with annual Tier II report.

E. CHANGING 150 POUND GAS CYLINDER

1. Tools and Materials Needed
 - a. Special Chlorine Institute Wrenches
 - b. Aqueous Ammonia
 - c. Replacement Washers
 - d. Steel Wool
2. Required Personal Protective Equipment
 - a. Neoprene Rubber Gloves
 - b. Tychem® SL coveralls
 - c. Full face respirator

CHANGING 150 POUND GAS CYLINDER PROCEDURES

STEP:

1. Don required protective equipment.
2. Be sure the supply is empty by weighing it.
3. Turn on the ventilation fan.

4. When setting Tare Weight for a new cylinder follow the "Load Tank" procedures on the digital scales prior to chlorine cylinder change.
5. Close the regulator valve.
6. Remove the regulator valve; verify cylinder valve is closed tightly.
7. Loosen the yoke clamp screw.
8. Remove the yoke clamp and adapter from the cylinder valve.
9. Remove the washer from the cylinder valve.
10. Support the vacuum regulator using hanger on the wall.
11. Screw the protective outlet cap onto the cylinder valve.
12. Screw the protective hood onto the cylinder.
13. Detach the safety chain.
14. Move the cylinder from the scale to the floor and chain it with the other empty cylinders.
15. Move the full cylinder and position it on the scale.
16. Secure the full cylinder with the safety chain.
17. Remove the protective hood.
18. Turn the cylinder to align the valve opening with the vacuum regulator facing forward.
19. Be sure the cylinder valve is closed.
20. Be sure the packing nut is tight.
21. Remove the protective outlet cap from the cylinder valve.
22. Make sure the surface around the valve opening is clean and smooth.
23. Remove the used washer from the mating surface of the adapter.
24. Place a new washer onto the adapter mating surface.
25. Place the yoke clamp over the cylinder valve.
26. Place the end of the adapter into the opening of the cylinder valve.
27. Tighten the yoke clamp screw.
28. Be sure the washer fits evenly on the mating surfaces of the adapter and the cylinder valve.
29. Open the cylinder valve and close it to charge the connection with chlorine; do not close cylinder valve tight.
30. Check for leaks using aqueous ammonia fumes.
31. Open the auxiliary valve.
32. Using aqueous ammonia fumes, check for leaks at each section as it is charged with chlorine. *If there are leaks, first tighten the fittings. If leaks continue, replace the washers and tighten the fittings. If leaks still continue, isolate the line and repair the leaking fittings.*
33. Open the regulator valve.
34. Leave wrenches on window sill.
35. Press enter on the digital scale and wait for scale to calibrate and read 150 lbs.
36. Add the new pounds of chlorine to the plant records.
37. When the last two cylinders are put online, order more chlorine. This will allow a minimum of two weeks for a new shipment. This action assures that the station will not run out of chlorine.

F. EMERGENCY RESPONSE WHEN OFF-SITE

1. Leak Alarm and Dispatch Communication: If notified of a chlorine alarm, on-call Water Division personnel shall acknowledge the notification by calling Eastside Fire and Rescue (911). The following information shall be provided:
 - a. Name of responder
 - b. Response time to the site
 - c. Location where Water Division personnel will meet the fire department
2. Arrival at meeting point: Upon arrival at the meeting point, which is at the front gate on SE 92nd Street, the on-call Water Division personnel shall obtain the emergency procedures binder from the work truck. Water Division personnel shall assist the fire department as requested, however, they shall not approach the chlorination station until the chlorine leak has been stopped by the fire department, and the fire department has determined it is safe to enter.
3. Entry into the facility by Water Personnel: After the leak has been stopped, and the fire department has determined it is safe to proceed, Water Division personnel, working in teams of 2, shall don full-facemask SCBAs, wear the Gas Badge Pro chlorine gas detector and chemical gloves. They shall proceed to the chlorination station with a bottle of aqueous ammonia. While one technician waits outside, but within hailing distance, the second technician shall enter the chlorination station and verify there is no chlorine leak by testing with the ammonia bottle. *Personnel must be monitored by off-site staff via phone or hand held radio.* Once safe conditions have been verified, alarms can be reset and the chlorination station can be evaluated for required repairs or returned to normal operations.
4. Post incident assessment: A post incident internal assessment should be conducted by Water Division supervisor and/or designee within a reasonable time after an emergency response. The purpose of this assessment is to determine if the procedures provided herein were followed by Water Division employees and to assess whether any changes are necessary to emergency procedures. In conducting such assessment, Water Division personnel recognize that each emergency response may have unique facts and/or circumstances and all assessments must be based on the totality of the circumstances of each incident. If the Water Division supervisor and/or designee participated in the emergency response, it is recommended that the assessment be reviewed by the Water Division supervisor's manager and/or manager's designee.

G. REQUIRED SAFETY TRAINING AND RESPIRATOR USE APPROVAL

All personnel involved in the operation or maintenance of chlorination stations shall be required to have the following initial and annual refresher training:

1. Chlorine hazards, the proper handling of chlorine, and emergency procedures for a chlorine leak.
2. Incident Command training.
3. The use of personal protective equipment.
4. The use of respiratory protection.

In addition, personnel shall be provided the following:

1. An annual respirator fit test.
2. Annual medical surveillance for use of a respirator.

H. SAFETY RULES FOR CHLORINE CONTAINERS

1. Ensure stored cylinders are secured by two chains to prevent falling. Separate the full cylinders from the empty cylinders. Chain together each group of cylinders on a different wall – tags will be hung around each cylinder stating “FULL” or “EMPTY”.
2. Ensure the protective hood is in place when moving a cylinder.
3. Never lift a cylinder by its hood.
4. Never expose a cylinder to direct heat.
5. Ensure the outlet cap to the valve on top of the chlorine cylinder is in place when a chlorine cylinder is not in use.
6. Never store combustible materials in a gas room.
7. Always store cylinders vertically.

I. FIRST AID FOR A CHLORINE EXPOSURE

No action should be taken involving any personal risk. Always work in teams of two.

1. EYE CONTACT: Immediately flush your eyes for 15 minutes using the eyewash located on the exterior of the chlorination station. As soon as possible, the attendant should dial 911 and request aid while the exposed person is using the eyewash.
2. INHALATION: Leave the contaminated area. The attendant should immediately call 911 and request medical aid. If the exposed person is not breathing, the attendant should begin CPR. Continue CPR until the victim is breathing without assistance or medical aid arrives. Keep the victim warm. Do not attempt rescue from a contaminated area.
3. SKIN CONTACT: Immediately flush the body for 15 minutes using the safety shower located on the exterior of the chlorination station. While flushing, remove clothing and shoes. The attendant should dial 911 and request medical aid.

J. CHLORINE FACTS

There are several important facts concerning chlorine which should be known to anyone working with a chlorination system:

1. Chlorine as supplied is a liquid under pressure and heat is required to change it into a gas.
2. Liquid chlorine has a high coefficient of thermal expansion and requires space to expand. It is dangerous if confined without expansion space.
3. Dry chlorine at room temperature is not seriously corrosive to iron, steel, copper, bronze, and many other metals. When combined with moisture it forms strong acids which rapidly attack virtually all metals.
4. Chlorine gas is only slightly soluble in water. 1% is the maximum at 50 degrees F. The maximum solution strength made by chlorinators is 3500 ppm or only about i/d of 1%.
5. Chlorine gas and cold water (less than 50 degrees F) form a solid hydrate.
6. Chlorine gas is about 2.5 times heavier than air. It diffuses slowly into air.
7. Chlorine gas is not poisonous but is a powerful irritant which can be disabling.
8. Chlorine gas and ammonia gas combine readily to form a white cloud of ammonium chloride – useful for leak detection. Chlorine and water solution and ammonia solution are dangerous when mixed and have been known to explode.
9. Chlorine liquid leaks 15 times faster through an opening than chlorine gas. If possible, a leaking container should be oriented so that gas escapes rather than liquid as repairs proceed.
10. Iron or steel will combine spontaneously with chlorine at temperatures near 460 degrees F.

K. CHLORINE RELEASE NOTIFICATION NUMBERS

If there is a chlorine release, which is known to or can reasonably be expected to exceed ten (10) pounds, you must immediately call the following four agencies:

- | | |
|------------------------------------|----------------|
| 1. Local Fire Department | 911 |
| 2. State Emergency Response Center | 1-800-633-7585 |
| 3. National Response Center | 1-800-424-8802 |

L. CITY OF NORTH BEND WATER DIVISION PERSONNEL PHONE LIST

Kraig Kramer	425-888-7655 or 425-864-0241
Jake Thompson	425-888-7655 or 425-864-0233
Jim Cassasa	425-888-7655 or 425-495-0251
Nick Johnson	425-888-7655 or 425-864-0357

M. TRANSPORTING 150 POUND CHLORINE GAS CYLINDERS

The U.S. DOT regulates the transportation of hazardous materials, including chlorine. Applicable DOT regulations appear in Title 49 of the Code of Federal Regulations (49 CFR), and requires special HazMat and safety permits as of January 1, 2005. In most circumstances it is preferable to let the chlorine supplier transport the chlorine to each site. If this arrangement is not possible, The Chlorine Institute's CI Pamphlet 76 contains recommendations on how to safely transport packaged chlorine. Placards are required for the transportation of any amount of chlorine. Proper labeling of the container is essential and the correct shipping papers must be on the vehicle. These requirements, including the correct wording of the paperwork and labeling, change frequently (Contact the supplier and review 49 CFR to remain current). **DO NOT TRANSPORT CHLORINE CYLINDERS WITHOUT YOUR SUPERVISOR'S AUTHORIZATION.**

APPENDIX O

CROSS-CONNECTION CONTROL PROGRAM

CITY OF NORTH BEND CROSS CONNECTION CONTROL MANUAL

I. Definitions

A. Administrator

The Administrator, or delegated representative, in charge of the City of North Bend Department of Public Works.

B. Approved

Accepted by the Building Inspector as meeting an applicable specification stated or cited in this regulation. Make, model, and size approved by the department. Devices appearing on the list developed by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research or that are listed or approved by other nationally recognized testing agencies acceptable to the department are considered approved by the department.

C. Auxiliary Water Supply

Any water supply to the premises other than the City's approved public potable water supply.

D. Backflow

The undesirable reversal of flow of water or other substances through a cross-connection into the public water system or consumer's potable water system.

E. Backflow Assembly Tester

A person holding a valid BAT certificate issued in accordance with chapter 246-292 WAC

F. Backflow Prevention Assembly

A RPBA, RPDA, DCDA, PVBA, or SVBA of make, model, and size that is approved by the department. Assemblies that appear on the current approved backflow prevention assemblies list developed by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research or other entity acceptable to the department are considered approved by the department.

G. Backflow Prevention Device

The nomenclature "device" refers to a backflow preventer that is not designed for in-line testing.

1. Air Gap (AG)

A physical separation between the free-flowing end of a potable water supply pipeline and the overflow rim of an open or non-pressurized receiving vessel. To be an air gap approved by the department, the separation must be at least twice the diameter of the supply piping measured vertically from the overflow rim of the receiving vessel, and

in no case be less than one inch, when unaffected by vertical surface (sidewalls). The separation must be at least three times the diameter of the supply piping, if the horizontal distance between the supply pipe and a vertical surface (sidewall) is less than or equal to three times the diameter of the supply pipe, or if the horizontal distance between the supply pipe and the intersecting vertical surfaces (sidewall) is less than or equal to four times the diameter of the supply pipe and in no case less than one and one-half inches.

2. Atmospheric Vacuum Breaker (AVB)

A device which contains a float check (poppet), a check seat and an air inlet vent. When water pressure is reduced to a gauge pressure of zero or below, the float check drops, allowing air to enter the device, preventing backsiphonage. It is designed to prevent backsiphonage only.

3. Double Check Valve Assembly (DCVA)

An approved assemble consisting of two independently operating check valves, loaded to the closed position by springs or weights, and installed as a unit with, and between, two resilient seated shut off valves and having suitable connections for testing.

4. Pressure Vacuum Breaker Assembly (PVBA)

An approved assembly consisting of a spring loaded check valve loaded to the closed position and installed as a unit with, and between, two resilient seated shut off valves and having suitable connections for testing. It is designed to protect against backsiphonage only.

5. Reduced Pressure Backflow Assembly (RPBA)

An approved assembly consisting of two independently operated check valves, spring loaded to the closed position, separated by a spring loaded differential pressure relief valve loaded to the open position, and installed as a unit with, and between, two resilient seated shut off valves and having four suitable test cocks for checking the water tightness of the check valves and the operation of the relief valve.

H. Backpressure

Any elevation of pressure in the downstream piping system (by pump, elevation of piping, or stream and/or air pressure) above the supply pressure at the point of consideration which would cause, or tend to cause, a reversal of the normal direction of flow.

I. Backsiphonage

Backflow due to a reduction in system pressure in the purveyor's distribution system and/or consumer's potable water.

J. City

The City of North Bend or their duly authorized representative.

K. Contamination

An impairment of the quality of the potable water which creates an actual hazard to the public health through poisoning or through the spread of diseases by sewage, industrial fluids or waste. Also defined as severe or high hazard. Also see *Pollution*. The term "contamination" used in EPA and state drinking water regulations "Maximum contamination level" bestows a different meaning than that used in describing a cross-connection hazard.

L. Cross-Connection

Any actual or potential physical connection between a public water system or the consumer's potable water system and any source of non-potable liquid, solid or gas that could contaminate the public water supply by backflow.

M. Customer

For purposes of cross-connection control, the owner or operator of a plumbing system connected to a public water system via a service connection.

N. In-Premise Protection

A method of protecting the health of consumers served by the consumer's plumbing system, located within the property lines of the consumer's premises by the installation of an approved air gap or backflow prevention assembly at the point of hazard, which is generally a plumbing fixture.

O. Owner

Any person who has legal title to, or license to operate or occupy, a property upon which a cross-connection inspection will be made or upon which a cross-connection is present.

P. Person

Any individual, partnership, company, public or private corporation, political subdivision or agency of the State or of the United States or any other legal entity.

Q. Pollution

An impairment of the quality of the potable water supply which does not create a hazard to the public health but which does adversely affect the aesthetic qualities of such potable waters for domestic use. Also defined as low hazard. See also *Contamination*.

R. Premise Isolation

A method of protecting a public water system by installation of approved air gaps or approved backflow prevention assemblies at or near the service connection or other location acceptable to the purveyor to isolated the consumer's plumbing system from the purveyor's distribution system.

S. Purveyor

The Purveyor or delegated representative in charge of the City of North Bend water system.

T. Reclaimed Water

Effluent derived in any part from sewage from a wastewater treatment system that has been adequately and reliably treated, so that as a result of that treatment, it is suitable for beneficial use or a controlled use that would not otherwise occur, and is no longer considered wastewater.

U. Water Service Entrance

That point in the owner's water system beyond the sanitary control of the City; generally considered to be the outlet end of the water meter and always before any unprotected branch.

II. Purpose and Scope

- A. This Manual establishes minimum standards for the City to protect the public potable water supply from possible contamination of pollution due to backflow or backsiphon from a customer's private internal system into the public potable water system.
- B. This Manual establishes minimum cross-connection control operating policies, provides guidelines and requirements for installation, testing, and maintenance of approved backflow prevention assemblies and establishes permitting, and inspection requirements for existing and new backflow prevention assemblies.
- C. The purpose of this Manual is not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this Manual.

III. Authority

- A. The Federal Safe Drinking Water Act of 1974 (and Amendments of 1996), the statutes of the State of Washington Title 43 RCW and Chapter 246-290-490 WAC require purveyors to "protect public water systems from contamination due to cross connections".
- B. City of North Bend Municipal Code, Chapter 13.28 regulates cross-connections.

IV. Responsibility

- A. The Administrator shall be responsible for administering the provisions of this Manual.
- B. If the Administrator determines, consistent with the provisions of this Manual, a backflow prevention assembly is required at any customer's premises, the Administrator, or his delegated agent, shall give notice to the customer to install an air gap or approved backflow prevention assembly which isolates the customer's plumbing system from the City's distribution system.

- C. Installation of requested backflow protection assemblies shall be a condition of continued water service from the City. Service from the City's water supply system to any premises upon which the potential for backflow into the city system exists shall be discontinued or refused unless corrective action is taken in accordance with this manual.
- D. Upon installation the customer shall contact the City requesting inspection of said assembly or assemblies. The customer shall be subject to all applicable inspection and permitting fees.
- E. Upon approval of the installation by the City the customer shall have the assembly or assemblies tested by a State of Washington certified Backflow Assembly Tester (BAT) and shall submit a copy of the test report signed by the property owner to the City in accordance with this Manual.

V. Failure to Comply - Violations - Penalties

Any person, firm, or corporation who willfully violates any provisions and requirements of this Manual or North Bend Municipal Code Chapter 13.28 shall be subject to discontinuance of supply of City water to the premise where the violation exists. Discontinuance of the City potable supply to the premise shall remain in effect until corrective action as required by the Director is completed, tested and approved.

VI. Requirements

General

- A. Compliance with the provisions of the City of North Bend Cross Connection Control Manual shall be a condition of receiving the City of North Bend water supply.
- B. It is unlawful for any person to allow any contaminants or pollutants to backfeed from their facility and/or property into the city distribution system. Any connections now existing or hereafter installed that could allow for backfeed of any contaminants or pollutants into the city distribution system shall be discontinued and/or eliminated. Connection which cannot be discontinued and/or eliminated shall require the installation of a State of Washington approved backflow protection assembly that shall be regularly inspected and tested in accordance with the City of North Bend Cross Connection Control Manual.
- C. When the City requires that the public water supply be protected by premise isolation, the owner shall be responsible for water quality beyond the outlet end of the premise isolation assembly and should utilize fixture isolation protection for that purpose. Fixture isolation assemblies shall be installed in accordance with the Uniform Plumbing Code.
- D. The City may allow that the public supply be protected by fixture isolation for existing customer connections. Such an allowance shall only be permitted so long as the Administrator determines that the level of protection is adequate to protect the City's distribution system, and the owner agrees, in writing (unless waived by the

City) to (1) implement and maintain the fixture isolating backflow protection to the satisfaction of the City; and (2) comply with all applicable plumbing codes, including permitting requirements.

City of North Bend

- E. On new installations the City will provide on-site evaluation and/or inspection of plans in order to determine the type of backflow prevention assembly, if any, that will be required.
- F. For premises existing prior to the start of this program, the City will perform evaluations and inspections of plans and/or premises and inform the owner by letter of any corrective action deemed necessary, the method of achieving the correction, and the time allowed for the correction to be made. Up to sixty days will be allowed; however, this time period may be shortened by the Administrator depending upon the degree of hazard involved and the history of the device(s) in question.
- G. Premises are subject to inspection on or after the expiration date of required action to correct a cross-connection. Premises that have failed to comply with the City's request shall receive written notice, via registered mail, that water service to the premise will be terminated within a period not to exceed thirty (30) calendar days. In the event the owner informs the City of extenuating circumstances as to why the correction has not been completed, the City may grant a time extension up to but not exceeding sixty (60) days.
- H. If the City determines at any time that a serious threat to the public health exists, the water service shall be terminated immediately, provided, however, that notice will be posted on the premises affected at the time said service is terminated.
- I. Inspection shall be done during the initial installation, during on-site reviews of existing installations, and after any relocation.
- J. When an initial installation or test identifies a backflow prevention assembly is not properly functioning, the owner shall correct the malfunction and have the assembly inspected and re-tested until the backflow device operates correctly.

Owner

- K. The owner shall be responsible for the elimination or protection, by an air gap or approved backflow prevention assembly, of all cross-connection on their premises.
- L. The owner after having been informed by a letter from the City shall, at their expense, install any and all required backflow prevention assemblies.
- M. The Owner shall, at their expense, be responsible for having all backflow prevention assemblies tested: (1) at the time of installation, (2) annually after installation, or more frequently if test indicate repeated failures to meet test criteria; and (3) after an assembly is repaired, reinstalled or relocated or an air gap is re-plumbed or replaced by an approved RPBA. The test shall be performed by a State of Washington certified Backflow Assembly Tester (BAT) and signed by the owner. The results of

the tests shall be reported within 30 days to the Administrator on a form provided by or approved by the City.

- N. The owner shall, immediately, or no later than 30 days, or otherwise as directed by the Administrator, correct any malfunction of the backflow preventer which is revealed by periodic testing.
- O. The owner shall inform the City of any proposed or modified cross-connection and also any existing cross-connections of which the owner has actual knowledge but has not been found by the City.
- P. The owner shall install only backflow prevention assemblies approved by the City.
- Q. Any owner having a private well or other private water source shall not cross-connect to the City's system.
- R. The owner shall provide access to premises to the backflow prevention assembly at the City's request. Failure to provide access to inspect facilities shall be grounds for termination of water service.
- S. The owner shall be responsible for the payment of all fees for permits, annual or semi-annual device testing, re-testing in the case that the assembly fails to operate correctly, and any re-inspection for non-compliance with City requirements. Permits and fee schedules shall be as specified in the applicable sections the City of North Bend's Municipal Code.

VII. Installation and Testing - Minimum Requirements

- A. Minimum requirements for the installation and testing of all backflow protection assemblies shall be in accordance with the Cross Connection Control Manual - Accepted Procedure and Practice produced by the Pacific Northwest Section, American Water Works Association (PNWS/AWWA), Sixth Edition, December 1995, including subsequent revisions, adopted by reference herein. A copy is available for viewing at the Public Works Department of the City of North Bend, additional copies can be purchased from the PNWS/AWWA.
- B. In addition, all backflow protection assemblies shall be installed at a location that is easily accessible for inspection and testing. Assemblies located in vaults shall have adequate clearances and depths to allow the City to inspect and test. Assemblies that cannot be easily and readily inspected shall be required to be relocated and re-plumbed as required by the City. The owner shall contact the City of applicable installation requirements and standards.
- C. All bypass lines parallel to a line on which a backflow prevention assembly is installed shall have an approved backflow prevention assembly installed that is equal in type to the assembly required by the City on the main line.

VIII. Backflow Protection Devices

- A. All backflow protection assemblies (RPBAs, RPDAs, DCVAs, DCDAs, PVBAs and AVBs) installed for protection of the public water supply shall be models included on the current approved backflow prevention assemblies list developed by the University of Southern California (USC) Foundation for Cross-Connection Control and Hydraulic Research Manual of Cross Connection Control or other such agency acceptable to the Director. The Washington Department of Health maintains a copy of this list (DOH Publication # 331-090). A copy is available for viewing at the Public Works Department of the City of North Bend, additional copies can be purchased from the PNWS/AWWA.
- B. Any existing backflow protection assembly in use, but not currently listed by USC, can continue to be used providing all the following conditions are met
 - 1. The assemblies were included on the City and/or USC list of approved backflow prevention assemblies at the time of installation;
 - 2. The assemblies have been properly maintained;
 - 3. The assemblies are functioning properly based on inspection by the City and testing by a certified Backflow Assembly Tester;
 - 4. The degree of protection is satisfactory for protection of the City's water system as determined by the Administrator.
- C. When an unlisted assembly does not meet the above conditions, is moved, or can not be repaired using spare parts from the original manufacturer, the assembly shall be replaced by an assembly currently listed as approved by the USC Foundation for Cross-Connection Control and Hydraulic Research or other such agency acceptable to the Administrator.

IX. Applicability

- A. The provisions of this Manual are applicable to all connections to the City water supply. The City recognizes there are varying degrees of risks associated with different types of uses and will consider this when determining if a cross connection exists and applicable backflow prevention assemblies.
- B. The following Tables 1, 2, 3 and 4 are derived from the Pacific Northwest Section - American Water Works Association's Cross Connection Control Manual, Accepted Procedures and Practices, Sixth Edition, 1995. These tables, subject to revisions, provide minimum requirements and guidance for the assessment of the degree of hazard and required level of protection. If the actual degree of hazard is determined, by the Administrator, to be higher than these tables indicate, a higher level of protection may be required.
 - Table 1. Summarizes the relative level of protection provided by the different categories of assemblies and devices.
 - Table 2. A list of customer categories or types of water use where premise isolation is required in all cases.

Table 3. A list of customer categories or types of water use where premise isolation is required for existing service connections in accordance with the provisions of Section VI - D of this Manual.

Table 4. A list of some of the fixtures, equipment or uses of water which may constitute a cross connection and the minimum level of protection required.

TABLE 1
RELATIVE LEVEL OF PROTECTION

Abbreviations	Description/Application Summary [1]	Relative Level of Protection [2]
AG	Approved Air Gap For high and low health hazards, backpressure and backsiphonage	1
RPBA & RPDA	Reduced Pressure Backflow Assembly Reduced Pressure Detector Assembly For high and low health hazards, backpressure and backsiphonage	2
DCVA & DCDA	Double Check Valve Assembly Double Check Detector Assembly For low health hazards only, backpressure and backsiphonage	3
PVBA & SVBA	Pressure Vacuum Breaker Assembly Spill-Resistant Vacuum Breaker Assembly For high and low health hazards, backsiphonage only	4
AVB HBVB LFVB DCAV DCV	Atmospheric Vacuum Breaker Hose Bib Vacuum Breaker Lab Faucet Vacuum Breaker For very low health hazards, and backsiphonage only Dual Check with Atmospheric Vent Dual Check Valve or Meter Check Valve (Dual) For very low health hazards, backpressure and backsiphonage	5

Note: [1] The above descriptions of applicable and relative level of protection are based on the perspective of the City's selection of assemblies and devices for the prevention of the contamination of the water distribution system. Plumbing codes may classify some devices as providing higher levels of protection and as suitable for both backpressure and backsiphonage.

[2] This Manual does not address the location, inspection, and testing of AVBs, HBVBs, LFVBs, DCAVs and DCVs.

TABLE 2
MANDATORY SERVICE ISOLATION

Category of Premise or Use of Water	Assessed Health Hazard	Minimum Protection Recommended at Meter
Radioactive material processing plants or nuclear reactors	severe	RPBA & AG
Wastewater treatment plants or wastewater pump station	severe	RPBA & AG
Hospitals, medical centers, medical/dental or vet clinics, plasma centers, blood plasma centers	high	RPBA
Mortuaries	high	RPBA
Laboratories	high	RPBA
Metal plating industries	high	RPBA
Petroleum processing or storage plants	high	RPBA
Food processing and beverage bottling plants, canneries, packing (slaughter) houses	high	RPBA
Film processing facilities	high	RPBA
Piers and docks, graving docks, boat marinas, dry docks	high	RPBA
Commercial laundries and dry cleaners	high	RPBA
Premises restricting inspection	high	RPBA
Premises with unapproved auxiliary supply, including reclaimed water	high	RPBA
New		
Existing	high	RPBA
Interconnected with potable water supply	low	DCVA
Not interconnected with potable water supply		
Premises with approved auxiliary supply	low	DCVA
Car washes	high	RPBA
Premises with fire sprinkler systems and/or private hydrants		
With chemical addition	high	RPBA/RPDA
Without chemical addition	low	DCVA/DCDA
Tall buildings (over 30 feet) (elevation above the connection between the service line and the distribution system)	low	DCVA
Irrigation Systems (individually metered and supplied by domestic water supply)		
With chemical addition	high	RPBA
Without chemical addition	low	DCVA
Survey access denied or restricted	high	RPBA

TABLE 3
RECOMMENDED SERVICE ISOLATION

Category of Premise or Use of Water	Assessed Health Hazard	Minimum Protection Recommended at Meter
Battery manufacturing or repair facilities	high	RPBA
Ice manufacturing and cold storage plants	high	RPBA
Residential irrigation	low	DCVA

TABLE 4
RECOMMENDED PROTECTION AT FIXTURES AND EQUIPMENT

Description of fixture, equipment or use of water [1]	Assessed Health Hazard	Minimum Protection at Fixture	Additional Premise or Internal Isolation [2]
Air compressor	low	DCVA	
Air conditioning systems	high	RPBA	
Air washers	high	RPBA	
Aquarium make-up water	high	AG/RPBA	
Aspirators, medical/lab	high	AVB	RPBA
Aspirators, medical/lab	high	RPBA	
Aspirator, weedicide, herbicide, and pesticide	high	RPBA	
Aspirator, vault drain	high	RPBA	
Autoclave	high	RPBA	
Autopsy tables	high	RPBA	
Baptismal fountain	high/low	RPBA, AG/AVB	
Bathtub, below rim filler	high	RPBA	
Bedpan washer	high	RPBA	
Post-mix beverage dispenser using CO2	high	RPBA	
Bidets	low	AVB	
Boiler feed lines	high	RPBA	
Bottle washing equipment	high	RPBA	
Bottle washing equipment	high	PVBA/AVB	RPBA
Box hydrant (irrigation)	high	PVBA/DCVA	
Brine tank	low	AG/DCVA	
Can washing equipment	high	RPBA	
Can washing equipment	high	PVBA/AVB	RPBA
Chemical feed tank for industrial process	high	AG/RPBA	RPBA

Table 4: Continued

Description of fixture, equipment or use of water [1]	Assessed Health Hazard	Minimum Protection at Fixture	Additional Premise or Internal Isolation [2]
Chemical feeder for commercial cleaners	high	AG/RPBA	
Chemical feeder for commercial cleaners	high	AVB/PVBA	RPBA/DCVA
Chlorinators	high	RPBA	
Commercial coffee urns	low	AG/AVB	
Computer cooling lines	high	RPBA	
Condensate tanks	high	RPBA	
Commercial cooling kettles	low	AG/AVB	
Cooling towers	high	AG/RPBA	
Decorative ponds	high	AG/RPBA	
Degreasing equipment	high	RPBA	
Dental equipment/cuspidors	high	RPBA	RPBA
Dialysis equipment	high	RPBA	
Dishwashers	low	AVB	
Drinking fountains	low	AG	
Dye vats and tanks	high	AG/RPBA	
Etching tanks	high	AG/RPBA	RPBA
Fermenting tanks	high	AG/RPBA	RPBA
Fertilizer injection	high	RPBA	
Film processors	high	RPBA	
Fire dept. connection	low	DCVA	
Fire sprinkler system w/o chemical addition	low	DCVA/DCDA	
Fire sprinkler system with chemical addition	high	RPBA/RPDA	
Floor drains	high	AG	
Flushing floor drains	high	AVB	DCVA
Fume hoods (lab)	high	AVB	RPBA
Garbage can washers	high	RPBA	
Heat exchangers other than double wall with leak path	high	RPBA	
Heat pumps	high	RPBA	
High pressure washers w/o chemical injection	low	DCVA	
Hose bibbs (residential)	low	AVB/HBVB	
Hose bibbs (industrial)	varies	AVB/HBVB	RPBA/DCVA
Hoses, kitchen rinse	low	AVB	
Hot tubs	high	AG/RPBA	
Commercial hot water heating boilers	high	RPBA	
Hydrotherapy baths	high	RPBA	
Ice makers	high	AG/RPBA	
Industrial fluid systems	high	RPBA	

Table 4: Continued

Description of fixture, equipment or use of water [1]	Assessed Health Hazard	Minimum Protection at Fixture	Additional Premise or Internal Isolation [2]
Intertied (looped) services	low	DCVA	
Irrigation system (lawn) with chemical addition	high	RPBA	
Irrigation system (lawn) w/o chemical addition	low	PVBA/DCVA	
Janitor sinks	low	AVB/HBVB	
Kitchen equipment	low	AVB	
Laboratory equipment	high	AVB/LFVB	RPBA
Laundry machines, commercial	high	RPBA	
Livestock drinking tanks	high	AC/AVB	DCVA
Make-up tanks	high	AG/RPBA	
Mobile carpet cleaners	high	RPBA	
Pesticide applicator trucks	high	AG/RPBA	
Photo developing sinks/tanks	high	RPBA	
Private fire hydrants	low	DCVA	
Pump prime lines	high	RPBA	
Radiator flushing equipment	high	RPBA	
Recreational vehicle dump station	severe	AG	RPBA
Sewer connected equipment	severe	AG	
Sewer flushing	severe	AG	
Spas	high	AG/RPBA	
Steam generating equipment	high	RPBA	
Sterilizers	high	RPBA	
Stills	high	RPBA	
Sumps	high	AG	
Swimming pools	high	AG/RPBA	
Trap primers	high	AG	
Used or gray water systems	high	RPBA	
X-ray equipment	high	RPBA	

- [1] The information in Table 4 may differ from the backflow prevention requirements for individual plumbing fixtures found in plumbing codes. For public health protection within a customer's premise, the Uniform Plumbing Code governs. Table 4 is provided to illustrate only some of the health hazards found in plumbing systems. This table will be used by the City in assessing the degree of hazard a customer's plumbing system places upon the City's water distribution system. Deficiencies in backflow prevention within the customer's premise should be compensated for through the selection of an appropriate assembly for premise isolation.
- [2] Where a high health hazard is assessed, the use of an atmospheric vacuum breaker or other backflow device for protection at a fixture should only be allowed when area or premise isolation is provided by an approved backflow assembly.

X. Administrative Procedures

The City of North Bend has recently adopted this Cross Connection Control Program Manual. In order to carry out the provisions of these new requirements, a surveillance program based upon proper management, effective customer education, adequate record keeping, and aggressive inspections must be properly implemented.

Such a program for cross connections and sanitary hazards initially requires the inspection of all new and existing buildings, structures, and grounds. As proposed, this procedure will require the Public Works Administrator or designated representative and Building Official to assist with these requirements. Each must be knowledgeable in the field of pumping and building inspection, pipe arrangements, and certified as a cross-connection specialist.

1. Minimum Requirements

The following requirements are based on the most current edition of the Cross Connection Control Manual published by the Pacific Northwest Section - American Water Works Association (PNWS-AWWA). These requirements are provided for clarification and in any disagreement between these listed below and requirements listed elsewhere in this Manual, the more restrictive shall govern. As described in elsewhere in this manual, the premise isolation requirement may be waived or reduced for certain existing businesses, providing certain conditions are met.

RPBAs

- A. Premises on which materials dangerous to health or wherein toxic substances are handled, shall be required to have an approved reduced backflow assembly installed at the service connection.
- B. Premises where entry is physically restricted so that inspections for cross connections cannot be made sufficient to assure that cross connections do not exist, shall be required to have an approved reduced pressure backflow assembly installed at the service connection.
- C. Premises having an auxiliary water supply with internal cross connections that are not correctable or intricate plumbing arrangements which make it impractical to ascertain whether or not cross connections exist, shall be required to have an approved reduced pressure backflow assembly installed at the service connection.

DCVAs

- D. Premises which handle a substance that is objectionable, although not a health hazard, in a manner constituting a potential cross connection, shall be required to have an approved double check valve assembly installed at the service connection.
- E. Premises having an auxiliary water supply with no known cross connections, shall be required to have an approved double check valve assembly installed at the service connection.

- F. Premises on which any substance that is not a health hazard but is under pressure so as to enable entry into the public water supply or where a cross connection could reasonably be expected to be present, shall be required to have an approved double check valve assembly installed at the service connection.
- G. Premises which have a repeated history of cross connections being established or re-established, shall be required to have an approved double check valve assembly installed at the service connection.

Fire Protection Systems

- H. Premises having a fire protection system where no chemicals are allowed to be used, shall be required to have an approved double check valve assembly (DCVA) or approved double check detector assembly (DCDA) installed at the fire service connection.
- I. Residential premises having a fire protection system where no chemicals are allowed to be used, shall be required to have an approved double check valve assembly (DCVA) installed at the water service connection.
- J. Residential fire systems with a flow through system using approved potable water pipe and materials shall not be required to install backflow protection.

Irrigation Systems

- K. Premises having an irrigation system where chemicals or herbicides are allowed to be used, shall be required to have an approved reduced pressure backflow assembly installed at the service connection.
- L. Non-residential premises having an irrigation system which is subject to flooding, backpressure, elevated piping or where compressed air is allowed to be used, shall be required to have an approved double check valve assembly installed at the service connection.
- M. Non-residential premises having an irrigation system which does not fall into one of the prior two categories, shall be required to have an approved pressure vacuum breaker assembly or double check valve assembly installed on the system.

2. New and Proposed Construction

- A. Upon application for a building permit, the Building Official or authorized designate shall require detailed plans and specifications for the plumbing installation. The customer shall also be required to complete a Cross Connection Control Program Survey.
- B. The Building Official, or authorized designate, shall review these plans, specifications and survey to determine the probability of cross connections, the availability of auxiliary water supply, and the handling of substances which, if introduced into the water supply, would constitute a health, plumbing, or system hazard.
- C. During the construction phase of any new building, structure, or ground installation, and during the plumbing inspection, the Building Official or authorized designate will

also perform the required cross connection control inspection. Upon completion of the plumbing inspections the Building Official or authorized designate shall complete the CCC Field Inspection Form, to document that subject cross connection control inspection has been made and to document the location of any and all backflow prevention assemblies and/or devices.

- D. All backflow prevention assemblies installed internally or at the service connection shall be tested by a certified Backflow Assembly Tester and the test reports submitted to the Building Official or authorized designate (using the Backflow Assembly Test Report form).

3. Existing Buildings, Structures, and Grounds

The systematic program of inspection shall be established with priority given on the basis of risk to public health and shall be conducted as outlined below.

- A. A form letter will be sent to each commercial and industrial metered customer explaining the program and stressing the relationship between cross connections and water-borne disease epidemics, types of health hazards, and cross connection. The duties and liabilities of the owners or managers as well as the rules and regulations that apply, will be explained. The letter will also include a questionnaire of desired information such as the type of water used on the premises, auxiliary water supplies, chemicals used, and certain types of fixtures installed. These questionnaires are to be returned to the Building Official or authorized designate.
- B. Based on the known information of the customers operation and the information received on the questionnaire, an inspection schedule will be prepared based on the location of the hazard within the facility and the degree of hazard posed to the utility.
- C. Approximately 10 days prior to the scheduled date of inspection the City will contact the owner, requesting an appointment with the owner/manager of the premises to discuss the necessity for the inspection and other pertinent matters.
- D. On the appointed date the Building Official or authorized designate will meet with the owner/manager and explain the purpose of the inspection. The Building Official or authorized designate will suggest the owner/manager appoint an individual from his firm that is knowledgeable with the firm's plumbing system to accompany the inspectors. At this time, the Building Official or authorized designate can obtain any blue prints or drawings of the "in-plant" system that are available and discuss any questions or other problems the owner/manager may have.
- E. On the date of the scheduled inspection, the City of North Bend's Inspector, with the owner's representative, will make a complete physical survey of all exposed piping. The underground system is to be checked as accurately as possible. All lines will be sketched on a field drawing, except where intricate plumbing arrangements make it impractical. In this case an "as-built" drawing will be requested. Each line shall be followed to its end and a survey made to determine whether there are any actual or

potential cross connections or any conditions that might tend to pollute the potable water system.

- F. Immediately upon completion of the survey the inspection team will orally brief the owner/manager of their findings.
- G. The inspection team will prepare a written report that will include, but shall not be limited to, the following:
 - Complete identifying information.
 - All cross connections found, their location and optional methods of control.
 - All industrial fluids, chemical, or other contaminating liquids used or pumped under pressure and their use and probability of cross connections.
 - Any applicable drawings, sketches, blueprints or other documents used in support of the inspection.
 - A summary of findings.
 - Specific recommendations.
- H. The inspection team will submit a copy of the completed report to the Building Official or authorized designate.
- I. Upon completion of the review of the report the Building Official or authorized designate shall prepare a letter to the respective customer. The letter will outline the findings of the report, the corrective action required, and establish a corrective action completion date (usually 60 days). A copy of the report will be maintained on file for review by the State Department of Health.
- J. On the corrective action completion date, or soon thereafter, the Inspector shall take a copy of the report and re-inspect the items that required corrective action.
- K. Upon completion, the Inspector shall report in writing to the Building Official or authorized designate, the results of the re-inspection.
- L. After receiving the results of the re-inspection the Building Official or authorized designate shall take such action as deemed appropriate under the provisions of the City's Cross Connection Control Manual.
- M. When all required actions have been completed and the device(s) tested by a certified Backflow Assembly Tester, a letter shall be sent to the Owner. Said letter will inform them of the annual testing requirements, including maintaining all backflow prevention devices in proper operating order as evidenced by submission, to the City, of the annual testing report.

4. Residential Education and Awareness

The City may develop or acquire pamphlets and/or bill stuffers to send to all of the water system customers. These shall include, but are not limited to, the following subjects:

- A. Home irrigation safety;
- B. Residential fire sprinkler systems;

- C. Health hazards associated with hose connection (chemical sprayers, radiator flush kits, etc.), utility sinks, and other household dangers.

If the City develops this program, this information shall be mailed directly to the customers.

The City shall also take advantage of other opportunities for public education by developing a traveling exhibit that can be set up at community events, schools and at City Hall.

5. Registering of Certified Testers

The City will maintain a list of Backflow Assembly Testers (BATs) that may be provided to customers. Persons or organizations wishing to be added to this list will be required to provide the City with copies of the following:

- A. Proof of current certification by the State of Washington as a BAT for all persons that are authorized to perform tests.
- B. Proof of current calibration tests performed for all testing equipment (annual calibration is required).
- C. A copy of a current business license authorizing the company to work in the City of Sequim.

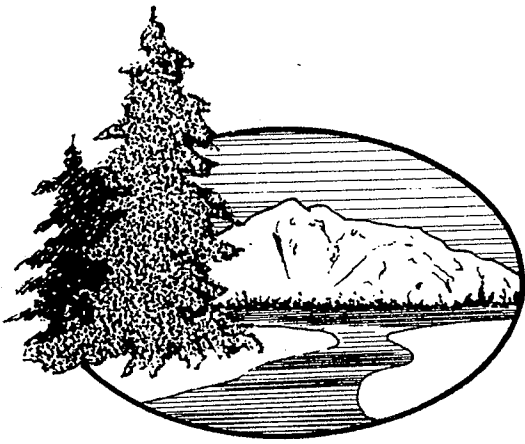
6. Record keeping and tracking of assemblies

The City will establish records that will meet all of the record keeping requirements of the state and allow effective monitoring and tracking of customer compliance with the annual backflow assembly testing requirements. The general content of the City's records will be as follows:

Information on each assembly will include: the location of the business (or water service) where it is located (some businesses may have multiple devices), initial inspection information for each location (inspector, date, survey #, comments) installation information (installed by, contact info., date installed, specific location, water line size, water pressure, hazard level and hazard protected), assembly information (assembly #, type manufacturer, size, model, serial # and inspection period), and a complete testing history (initial and final test results for each year with: pass/fail, test type, date, tester's name and certification #, line pressure and test results for all three valves, repair information, test kit info and owner's signature.)

7. Standard Forms and Letters

- A. Form Letter to be sent to all commercial and industrial customers
- B. CCC Program Survey
- C. CCC Plan Check
- D. CCC Inspection Form
- E. Backflow Assembly Test Form



CITY OF NORTH BEND

"Excellence in Government - Pride in Service"

211 Main Ave N. • PO Box 896 • North Bend, WA 98045

Re: Backflow Prevention Device Testing Program

Dear Water Customer,

The backflow prevention device(s) installed in your supply system is (are) due for annual testing as required by State Code WAC 248-54-285. Our records show a total of device(s) in your system. Please have the testing performed by a certified cross connection specialist, issued by the State of Washington Department of Social and Health Services.

If a device fails its test, please have the necessary repairs made. Upon completion of a satisfactory test, fill out the enclosed test & maintenance report and return it to this this office within thirty (30) days.

Additional information regarding this program may be obtained by contacting 888-0282.

Sincerely,

Pat Osborne
Public Works Director

Fergus McGrath
Cross Connection Control Specialist

**City of North Bend
Cross Connection Control Ordinance**

ORDINANCE NO. 371

AN ORDINANCE OF THE CITY OF NORTH BEND, WASHINGTON PROHIBITING CROSS-CONNECTIONS AND PROVIDING FOR BACK FLOW PREVENTION DEVICES AND PROVIDING FOR DISCONTINUANCE OF SERVICE FOR VIOLATIONS.

WHEREAS, the Department of Social and Health Services, State of Washington, has enacted certain rules and regulations requiring municipalities to regulate and control cross-connections, utilize back flow devices and prevent possible contamination of the public water systems; and

WHEREAS, the purpose of this ordinance is to protect the health of water consumers by the control of actual and/or potential cross-connections through two basic programs:

A. Through proper installation and surveillance of back flow prevention devices on service lines leading to premises where cross-connection exists, or are likely to occur; and

B. Through inspection and regulation of plumbing within premises to minimize the danger of contamination of water systems on these premises or the public water supply itself and such is in the best interest of the City of North Bend,

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF NORTH BEND DOES ORDAIN AS FOLLOWS:

Section 1: Any customer, regardless whether residing within or without the city limits of the City of North Bend, which is now receiving water from the City of North Bend water system or who will in the future receive water from the City of North Bend, shall comply with the rules and regulations contained in this ordinance.

Section 2: For the purpose of this ordinance, "customer" is any person, family, business, corporation, partnership or firm connected to the City of North Bend water supply.

Section 3: In addition, any water district, municipal organization or other organization which is connected to the City of North Bend water supply for water and/or which is furnished to people or members within said district or organization shall cause all the people or members within said district or organization as well as the district or organization itself to comply with the rules and regulations contained in this ordinance.

Section 4: These regulations are to be reasonably interpreted. It is their intent to recognize the varying degrees of hazard and to apply the principle that the degree of protection should be commensurate with the degree of hazard.

Section 5: As used in this ordinance, unless the context states otherwise, the following definition shall apply;

(A) Air gap separation means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supply water to a tank, plumbing fixture, or other device and the flood level

rim of the receptacle, and shall be at least double the diameter of supply pipe measured vertically above the flood level rim of the vessel. In no case shall the gap be less than one inch.

(B) Auxiliary supply means any water source or system, other than the public water supply, that may be available in the building or premises.

(C) Back flow means the flow other than the intended direction of flow, of any foreign liquids, gases, or substances into the distribution system of a public water supply.

(1) Back pressure means back flow caused by a pump, elevated tank, boiler, or other means that could create pressure within the system greater than the supply pressure.

(2) Back siphonage means a form of back flow due to a negative or subatmospheric pressure within a water system.

(D) Back flow prevention device, means a device to counteract back pressures or prevent back siphonage.

(E) Cross-connection means any physical arrangement whereby a public water supply is connected, directly or indirectly, with any other water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or other device which contains or may contain, contaminated water, sewage, or other waste or liquid of unknown or unsafe quality which may be capable of imparting contamination to the public water supply as a result of back flow. Bypass arrangements, jumper connections, removable sections, swivel or change-over devices, and other temporary or permanent devices through which, or because of which, back flow could occur are considered to be cross-connections.

(F) Double check valve assembly, means an assembly composed of two single, independently acting check valves, including tightly closing shutoff valves located at each end of the assembly and suitable connections for testing the watertightness of each check valve.

(G) Reduced pressure principle back flow prevention device means a device incorporating two or more check valves and an automatically operating differential relief valve located between the two checks, two shutoff valves, and equipped with necessary appurtenances for testing. The device shall operate to maintain the pressure in the zone between the two check valves, less than the pressure on the public water supply side of the device. At cessation of normal flow, the pressure between the check valves shall be less than the supply pressure. In case of leakage of either check valve the differential relief valve shall operate to maintain this reduced pressure by discharging to the atmosphere. When the inlet pressure is two pounds per square inch or less the relief valve shall open to the atmosphere thereby providing an air-gap in the device.

Section 6: Cross-Connections prohibited.

(A) Except as provided in Section 7, all cross-connections as above defined, whether or not such cross-connections are

controlled by automatic devices, such as check valves or by hand-operated mechanisms such as a gate valve or stop cocks, are prohibited.

(B) Failure on the part of persons, firms, or corporations to discontinue the use of any and all cross-connections and to physically separate such cross-connections will be sufficient cause for the discontinuance of the public water service to the premises on which the cross-connection exists.

(C) The Utilities Superintendent shall, in cooperation with the health officer or the local plumbing inspector, make periodic inspections of premises served by the water supply to check for the presence of cross-connections. Any cross-connections found in such inspection shall be ordered removed by the responsible agency or authority. If an immediate hazard to health is caused by the cross-connection, water service to the premises shall be discontinued until it is verified that the cross-connection has been removed.

Section 7: Use of Back Flow Prevention Devices.

(A) Back flow prevention devices shall be installed at the service connection or within any premises wherein the judgment of the Utilities Superintendent, the nature and extent of the activities on the premises, or the materials used in connection with the activities, or materials stored on the premises would present an immediate and dangerous hazard to health should a cross-connection occur, even though such cross-connection does not exist at the time the back flow prevention device is required to be installed. This shall include but not be limited to the following situations:

- (1) Premises having an auxiliary water supply, unless the quality of the auxiliary supply is in compliance with the rules and regulations of the State Board of Health.
- (2) Premises having internal cross-connections that are not correctible, or intricate plumbing arrangements which make it impracticable to ascertain whether or not cross-connections exist.
- (3) Premises where entry is restricted so that inspections for cross-connections cannot be made with sufficient frequency or at sufficiently short notice to assure that cross-connections do not exist.
- (4) Premises having a repeated history of cross-connections being established or re-established.
- (5) Premises on which any substance is handled under pressure so as to permit entry into the public water supply, or where a cross-connection could reasonably be expected to occur. This shall include the handling of process waters and cooling waters.
- (6) Premises where materials of a toxic or hazardous nature are handled such that if back siphonage should occur, a serious health hazard may result.
- (7) The following types of facilities will fall into one of the above categories where a back flow prevention

device shall be installed at these facilities as set forth herein unless the Utilities Superintendent determines no hazard exists.

- (a) Hospitals, mortuaries, clinics;
- (b) Laboratories;
- (c) Piers and docks;
- (d) Sewage treatment plants;
- (e) Food or beverage processing plants;
- (f) Chemical plants using a water process;
- (g) Metal plating industries;
- (h) Petroleum processing or storage plants;
- (i) Radioactive material processing plants or nuclear reactors;
- (j) Others specified by the Secretary of the Department of Social and Health Services.

(B) The type of protective device required herein shall depend on the degree of hazard which exists as follows:

(1) An air-gap separation or a reduced pressure principle back flow prevention device shall be installed where the water supply may be contaminated with sewage, industrial waste of a toxic nature or other contaminant which would cause a health or system hazard.

(2) In the case of a substance which may be objectionable but not hazardous to health, a double check valve assembly, air-gap separation or a reduced pressure principle back flow prevention device shall be installed.

(C) Back flow prevention devices required in this section shall be installed at the property line of the premises or at the meter when meters are used or at a location designated by the Secretary of the Department of Social and Health Services or the Utilities Superintendent of the city.

(D) Back flow prevention devices required in this section shall be installed under the supervision of, and with the approval, of the city.

(E) Any protective device required in this section shall be a model approved by the Secretary of the Department of Social and Health Services. A double check valve assembly or a reduced pressure principle back flow prevention device will be approved if it has successfully passed performance tests of the University of Southern California Engineering Center or other testing laboratories satisfactory to the Secretary of the Department of Social and Health Services.

(F) Back flow prevention devices installed under this section shall be inspected and tested annually, or more often where successive inspections indicate repeated failure. The devices shall be repaired, overhauled, or replaced whenever they are

found to be defective. Inspections, tests and repairs and records thereof shall be done under the city's supervision.

Section 8: Failure of any customer or any district organization to cooperate in the installation, maintenance, testing or back flow prevention device or the requirements of an air-gap separation shall be grounds for the termination of the water services at a point where such flow, which is to be terminated by the City of North Bend, would best prevent possible contamination of the public water supply.

Section 9: This ordinance shall take effect on July 1, 1974, after adoption by the City Council and publication as required by law.

PASSED by the City Council of the City of North Bend, Washington, at its regular meeting on 4th day of June, 1974.

CITY OF NORTH BEND

ATTEST:

Virginia J. Anderson
CITY CLERK

David B. Miller
MAYOR

13.12.230 Defacing fixtures.

It is unlawful for any person to break, deface, or damage any water meters, gate, pipe, or other waterworks appliance or fixture, or in any other manner interfere with the proper operation in any part of the water system of the city, and anyone found violating any of these provisions, unless otherwise provided for, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as for other misdemeanors as provided by law.

13.12.240 Inspection.

Agents of the water department shall have access at all proper hours of the day to all parts of the buildings or premises in which water may be delivered from the city mains, for the purpose of inspecting the condition of the pipes and fixtures, and the manner in which the water is used. Upon refusal to permit such inspection, water service may be disconnected and shall not be reconnected until such inspection is permitted, and all delinquent water rates, together with the proper turn-on charges, have been paid. There shall be an inspection fee as established by the Taxes, Rates and Fees Schedule adopted by ordinance and a capital improvement charge for the meter size being used by the property owner for meter installations installed by non-city employees. See the Taxes, Rates and Fees Schedule for the capital improvement charge.

¹ For statutory provisions regarding service rates for municipal water system, see RCW 35.92.010.

Chapter 13.16**WATER SYSTEM – CROSS-CONNECTIONS AND BACKFLOW PREVENTION****Sections:**

- 13.16.150 Interpretation and intent.**
- 13.16.160 Conformance to rules and regulations.**
- 13.16.170 Organizations – Conformance.**
- 13.16.180 Definitions.**
- 13.16.190 Cross-connection – Prohibited – Exceptions.**
- 13.16.200 Cross-connection – Failure to discontinue.**
- 13.16.210 Cross-connection – Removal.**
- 13.16.220 Backflow prevention device – Installation.**
- 13.16.230 Backflow prevention device – Degree of hazard.**
- 13.16.240 Backflow prevention device – Location.**

13.16.250 Backflow prevention device – Installation – Supervision.**13.16.260 Protective device – Approval required.****13.16.270 Backflow prevention device – Inspections and tests.****13.16.280 Failure to comply – Termination.****13.16.150 Interpretation and intent.**

The regulations set out in this chapter are to be reasonably interpreted. It is their intent to recognize the varying degrees of hazard and to apply the principle that the degree of protection should be commensurate with the degree of hazard.

13.16.160 Conformance to rules and regulations.

Any customer, regardless of whether residing within or without the city limits, who is now receiving water from the city system or who will in the future receive water from the city, shall comply with the rules and regulations contained in this chapter.

13.16.170 Organizations – Conformance.

Any water district, municipal organization or other organization which is connected to the city water supply for water and/or which is furnished to people or members within said district or organization shall cause all the people or members within said district or organization, as well as the district or organization itself, to comply with the rules and regulations contained in this chapter.

13.16.180 Definitions.

As used in this chapter, unless the context states otherwise, the following definitions shall apply:

A. “Air gap separation” means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supply water to a tank, plumbing fixture, or other device and the flood level rim of the receptacle, and shall be at least double the diameter of supply pipe measured vertically above the flood level rim of the vessel. In no case shall the gap be less than one inch;

B. “Auxiliary supply” means any water source or system, other than the public water supply, that may be available in the building or premises;

C. “Backflow” means the flow other than the intended direction of flow, of any foreign liquids, gases, or substances into the distribution system of a public water supply;

D. “Backflow prevention device” means a device to counteract back pressures or prevent back siphonage;

E. “Back pressure” means backflow caused by a pump, elevated tank, boiler, or other means that could create pressure within the system greater than the supply pressure;

F. “Back siphonage” means a form of backflow due to a negative or subatmospheric pressure within a water system;

G. “Cross-connection” means any physical arrangement whereby a public water supply is connected, directly or indirectly, with any other water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or other device which contains or may contain contaminated water, sewage, or other waste or liquid of unknown or unsafe quality which may be capable of imparting contamination to the public water supply as a result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices, and other temporary or permanent devices through which, or because of which, backflow could occur;

H. “Customer” means any person, family, business, corporation, partnership or firm connected to the city water supply;

I. “Double check valve assembly” means an assembly composed of two single, independently acting check valves, including tightly closing shutoff valves located at each end of the assembly and suitable connections for testing the watertightness of each check valve;

J. “Reduced pressure principle backflow prevention device” means a device incorporating two or more check valves and an automatically operating differential relief valve located between the two checks, two shutoff valves, and equipped with necessary appurtenances for testing. The device shall operate to maintain the pressure in the zone between the two check valves, less than the pressure on the public water supply side of the device. At cessation of normal flow, the pressure between the check valves shall be less than the supply pressure. In case of leakage of either check valve, the differential relief valve shall operate to maintain this reduced pressure by discharging to the atmosphere. When the inlet pressure is two pounds per square inch or less, the relief valve shall open to the atmosphere, thereby providing an air gap in the device.

13.16.190 Cross-connection – Prohibited – Exceptions.

Except as provided in Section 13.16.220, all cross-connections as defined in Section 13.16.180G, whether or not such cross-connections are controlled by automatic devices such as check valves, or by hand-operated mechanisms such as a gate valve or stopcocks, are prohibited.

13.16.200 Cross-connection – Failure to discontinue.

Failure on the part of persons, firms, or corporations to discontinue the use of any and all cross-connections and to physically separate such cross-connections will be sufficient cause for the discontinuance of the public water service to the premises on which the cross-connection exists.

13.16.210 Cross-connection – Removal.

The utilities superintendent shall, in cooperation with the health officer or the local plumbing inspector, make periodic inspections of premises served by the water supply to check for the presence of cross-connections. Any cross-connections found in such inspection shall be ordered removed by the responsible agency or authority. If an immediate hazard to health is caused by

the cross-connection, water service to the premises shall be discontinued until it is verified that the cross-connection has been removed.

13.16.220 Backflow prevention device – Installation.

Backflow prevention devices shall be installed at the service connection or within any premises wherein the judgment of the utilities superintendent, the nature and extent of the activities on the premises, or the materials used in connection with the activities, or materials stored on the premises would present an immediate and dangerous hazard to health should a cross-connection occur, even though such cross-connection does not exist at the time the backflow prevention device is required to be installed. This shall include but not be limited to the following situations:

A. Premises having an auxiliary water supply, unless the quality of the auxiliary supply is in compliance with the rules and regulations of the State Board of Health;

B. Premises having internal cross-connections that are not correctable, or intricate plumbing arrangements which make it impracticable to ascertain whether or not cross-connections exist;

C. Premises where entry is restricted so that inspections for cross-connections cannot be made with sufficient frequency or at sufficiently short notice to assure that cross-connections do not exist;

D. Premises having a repeated history of cross-connections being established or reestablished;

E. Premises on which any substance is handled under pressure so as to permit entry into the public water supply, or where a cross-connection could reasonably be expected to occur. This shall include the handling of process waters and cooling waters;

F. Premises where materials of a toxic or hazardous nature are handled such that if back siphonage should occur, a serious health hazard may result;

G. The following types of facilities will fall into one of the above categories where a backflow prevention device shall be installed at these facilities as set forth in this section unless the utilities superintendent determines no hazard exists:

1. Hospitals, mortuaries, clinics,
2. Laboratories,
3. Piers and docks,
4. Sewage treatment plants,
5. Food or beverage processing plants,
6. Chemical plants using a water process,
7. Metal plating industries,

8. Petroleum processing or storage plants,
9. Radioactive material processing plants or nuclear reactors,
10. Others specified by the Secretary of the Department of Social and Health Services.

13.16.230 Backflow prevention device – Degree of hazard.

The type of protective device required shall depend on the degree of hazard which exists as follows:

A. An air gap separation or a reduced pressure principle backflow prevention device shall be installed where the water supply may be contaminated with sewage, industrial waste of a toxic nature or other contaminant which would cause a health or system hazard;

B. In the case of a substance which may be objectionable but not hazardous to health, a double check valve assembly, air gap separation, or a reduced pressure principle backflow prevention device shall be installed.

13.16.240 Backflow prevention device – Location.

Backflow prevention devices required in this chapter shall be installed at the property line of the premises or at the meter when meters are used or at a location designated by the Secretary of the Department of Social and Health Services or the utilities superintendent of the city.

13.16.250 Backflow prevention device – Installation – Supervision.

Backflow prevention devices required in this chapter shall be installed under the supervision of, and with the approval of the city.

13.16.260 Protective device – Approval required.

Any protective device required in this chapter shall be a model approved by the Secretary of the Department of Social and Health Services. A double check valve assembly or a reduced pressure principle backflow prevention device will be approved if it has successfully passed performance tests of the University of Southern California Engineering Center or other testing laboratories satisfactory to the Secretary of the Department of Social and Health Services.

13.16.270 Backflow prevention device – Inspections and tests.

Backflow prevention devices installed under this chapter shall be inspected and tested annually, or more often where successive inspections indicate repeated failure. The devices shall be repaired, overhauled, or replaced whenever they are found to be defective. Inspections, tests and repairs and records thereof shall be done under the city's supervision. Charges for such inspections shall be as set forth in the [Uniform Construction](#) Administrative Code adopted by NBMC 15.02.010.

13.16.280 Failure to comply – Termination.

Failure of any customer or any district organization to cooperate in the installation, maintenance, testing of backflow prevention devices, or the requirements of an air gap separation, shall be grounds for the termination of the water services at a point where such flow, which is to be terminated by the city, would best prevent possible contamination of the public water supply.

Chapter 13.20 SEWER REGULATIONS

Sections:

13.20.005 Definitions.

13.20.010 King County regulations adopted.

13.20.020 Connection to public sewer – Required – [Exceptions](#).

13.20.030 Connection to public sewer – Owner’s cost and expense.

13.20.040 Connection to public sewer – Variance.

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13.20.100 Sewer connection charge – Appeal.

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13.20.120 Permit required – Classes of sewer permits.

13.20.130 Separate sewer connection required.

APPENDIX P

WELLHEAD PROTECTION PLAN



REPORT

WELLHEAD PROTECTION PLAN

City of North Bend

Submitted to:

City of North Bend

PO Box 896

1155 East North Bend Way

North Bend, WA 98045

Submitted by:

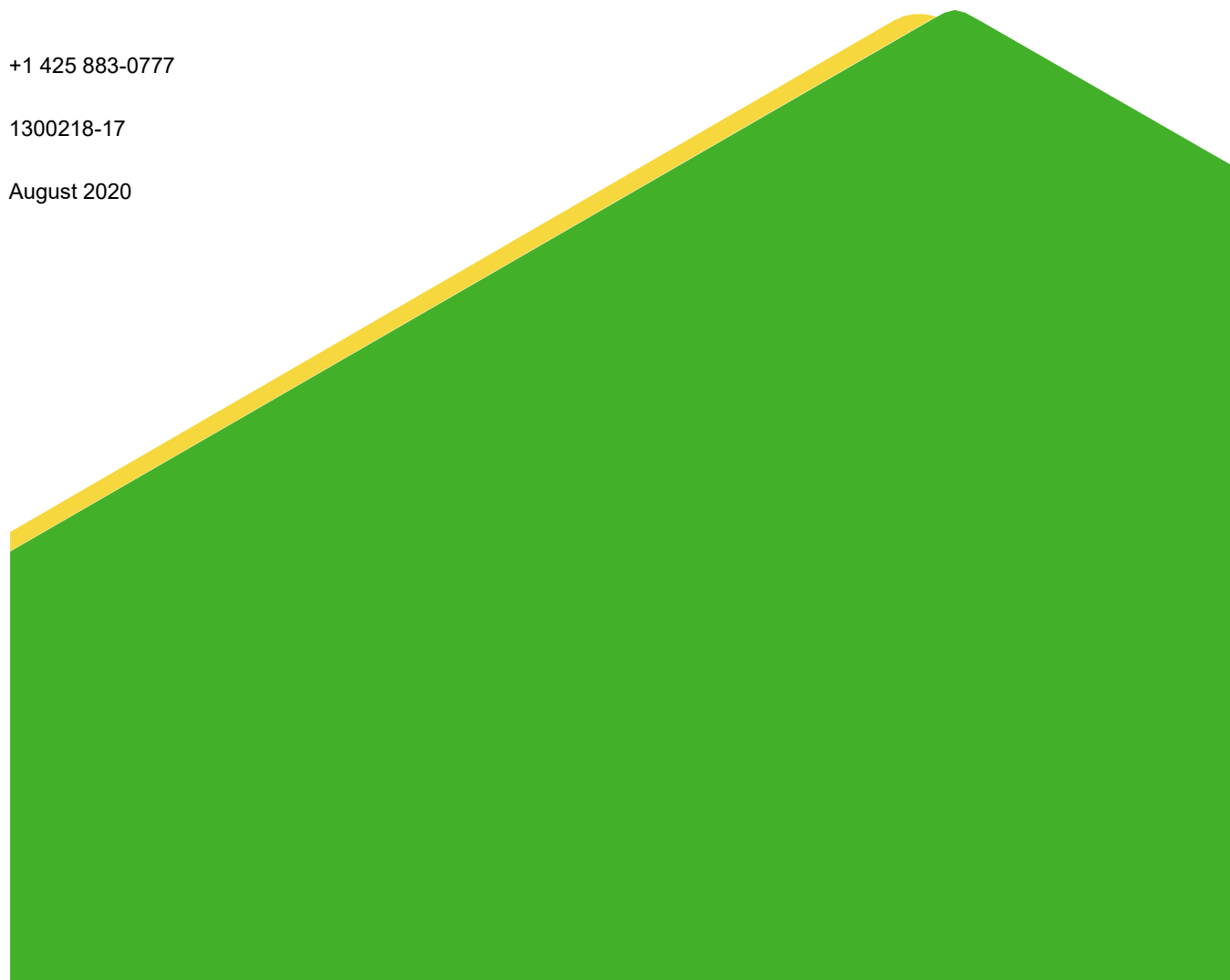
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1300218-17

August 2020



Executive Summary

The Wellhead Protection Program in Washington State is designed to prevent contamination of drinking water. To achieve this objective, the state requires public water systems to develop their own site-specific Wellhead Protection Plan (WHPP). The Department of Health (DOH) has published guidelines for completing a Wellhead Protection Plan (DOH 2010). The WHPP plan presented here is an update to the City of North Bend's (City) current WHPP (Gray & Osborne 2010).

Wellhead Protection Areas (WHPAs) were delineated for each of the City's two current water sources (Centennial Well and Mount Si Springs), and two potential future water sources (Wells NB-1 and NB-2). The WHPAs were delineated using a combined approach that included groundwater flow model results to simulate capture zones and analytical methods recommended by the Environmental Protection Agency (EPA).

A contaminant source inventory (CSI) was completed for each WHPA to document the known contaminant sources that could warrant continued management and monitoring. The results showed various contaminant sources in the Centennial Well's WHPA. The sites located closest to the well have been remediated and based on the assessment performed in this report do not appear to represent an immediate risk to the City's water supply. However, based on the hydrogeologic setting and land-uses surrounding the well, there is a potential for groundwater contamination at the Centennial Well. There are septic drain fields in a residential development immediately up-gradient of the Centennial Well (within the 1-Year WHPA) that could represent a moderate to high risk to the Centennial Well and it is recommended that the City begin monitoring groundwater quality between the drain fields and the Centennial Well. Overall, the long-term risks to the Centennial Well can be mitigated through landowner communication and education, effective stormwater management, and monitoring. Given the susceptible source and geologic conditions, it is important for the City to continue to implement thoughtful land-use policies and demonstrate continued vigilance in managing stormwater.

The potential risk to the Mount Si Springs water supply is much lower. The area within the WHPA is generally undeveloped and protected from future development. The only land-use in the vicinity of Mount Si Springs that could adversely affect water quality is related to septic drain fields, but the potential for contamination is low.

The City's future water sources, Wells NB-1 and NB-2, are located in similar settings as the Centennial Well. The potential wellhead protection issues identified for the Centennial Well also apply to Wells NB-1 and NB-2.

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Susceptibility Assessments

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Contaminant Source Data Inventory (EDR Report)

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Example Landowner Communication Letter

1.0 INTRODUCTION

Maintaining high quality drinking water focuses on preventing contaminants from reaching the drinking water sources. The City of North Bend (City) relies on both surface water and groundwater sources for its domestic supply. To protect water supplies, the Environmental Protection Agency (EPA) and the Washington State Department of Health (DOH) require public water utilities to develop a Wellhead Protection Program (WHPP) as a component of its water system plan.

The purpose of a WHPP is to provide local utilities with a proactive program for preventing groundwater contamination. A successful wellhead protection program consists of several components which must be developed before the plan can be approved or fully implemented. The major components of the wellhead protection program are described below (DOH 2010).

- A completed susceptibility assessment.
- A delineated wellhead protection area for each well, well field, or spring with the 1-, 5- and 10-year time-of-travel boundaries marked.
- An inventory of potential contaminant sources in the wellhead protection area that could threaten the water-bearing zone (aquifer) used by the well, spring, or well field. Washington Administrative Code (WAC) 246-290-135 stipulates that this list should be updated every two years.
- Documentation showing the water system sent delineation and inventory findings to all owners and operators of known and potential sources of groundwater contamination within the Wellhead Protection Area (WHPA) boundaries as well as to regulatory agencies and local governments within the boundaries of the WHPA.
- Contingency plans for providing alternate drinking water sources and continuity of service if contamination does occur.
- Coordination with local emergency responders for appropriate spill or incident response measures. Documentation that the water system notified the local emergency responders of the WHPA boundaries, susceptibility assessment results, inventory findings, and a contingency plan.

The City's current WHPP was prepared in 2010 and meets the requirements of the DOH and the EPA (Gray & Osborne 2010). The City is further developing the WHPP to better protect the City's drinking water sources and financial investment in existing and future infrastructure.

1.1 City Water Sources

The City currently uses water from two sources: a spring water source (Mount Si Springs) under water right S1-00620C and a groundwater well (Centennial Well) under water right permit G1-26617(A). Mount Si Springs is located northeast of the City adjacent to the west side of Mount Si. Wellhead protection measures are required for both springs and wells that supply Group A public water systems (DOH 2010). The recharge area (i.e., the source area from which the water at the springs originates) for Mount Si Springs is mostly the west slope of Mount Si and is much different than the City's groundwater source (as detailed in Section 3).

The City's Centennial Well (also known as Well NB-3) is located within its Public Work Shops complex (Figure 1). The well is completed in a highly transmissive and relatively shallow, unconfined aquifer (Section 2.1). The well is 214 feet deep and screened from 153 to 203 feet below ground surface (bgs). Static groundwater levels in the vicinity of the Centennial Well range between approximately 10 to 20 bgs (Golder 2007a). Testing of the well

indicated sustained pumping rates of approximately 2,500 gallons per minute (gpm) are possible and the aquifer transmissivity was estimated at approximately 100,000 ft²/day (Golder 2011).

The City has two other future groundwater sources (NB-1 and NB-2) based on authorized points of withdrawal under water right permit G1-26617(A). Well NB-1 is located in Torguson Park, which is off of North Bend Way to the east of downtown North Bend. Well NB-1 is located near the Centennial Well (approximately ½ mile northwest) and completed in a similar portion of the shallow aquifer (221 feet deep and screened from 152 to 211 feet bgs). Well NB-2 is located off of Bendigo Boulevard, near Gardiner Weeks Park. Well NB-2 was drilled as a test well in 2004, and the results indicated relatively finer sediments (i.e., less transmissive conditions) than observed at NB-1 or the Centennial Well in the shallow aquifer in this vicinity. The City's water current and permitted sources are shown in Figure 1.

2.0 PHYSICAL SETTING AND HYDROGEOLOGY

The City is located in the Upper Snoqualmie River basin, which is part of the Snohomish River Watershed (WRIA 7). WRIA 7 includes three major rivers: the Skykomish, the Snoqualmie, and the Snohomish. The Upper Snoqualmie River basin occupies a drainage area of approximately 375 square miles and includes all three forks of the Snoqualmie River (North, South and Middle) as well as the main stem above Snoqualmie Falls. Other surface water bodies in the upper Snoqualmie River Basin include springs, wetlands, and lakes. Discharge from known springs includes Mount Si Springs, which is located at the base of Mount Si and flows into the Middle Fork Snoqualmie River near the confluence with the North Fork. Groundwater in the Upper Snoqualmie River basin occurs primarily in unconsolidated alluvial/glacial deposits, as described below.

2.1 Snoqualmie Valley Aquifer

The hydrogeology of the Upper Snoqualmie Basin was summarized by Golder in a document prepared for the East King County Regional Water Association (EKCRWA) (Golder 2007b). Much of the sediment in the basin was deposited during the Vashon Stage of the Fraser Glaciation, which advanced to its maximum extent about 15,000 years before the present. Alpine glaciation also sculpted the landscape and deposited sediments, particularly during periods of the Pleistocene when continental glaciers were less prominent. Sediments were deposited in ice-dammed lakes (finer grained lacustrine deposits and coarser grained deltas), along the edges of glaciers (stream deposited embankments and ice-contact deposits) and beneath ice bodies (glacial till). In some cases, sediments were reworked during periods of glacial advance.

All three forks of the Snoqualmie River have aquifers that occupy the respective river valleys, referred to as "channel" aquifers (Golder 2007b). The South Fork and Middle Fork channel aquifers are relatively thick (200 to 400 feet), are typically unconfined, and are composed of moderate-to-high permeability sands and gravels. These two aquifers are included in what is termed the "shallow aquifer", which is also present where the channel aquifers converge in the vicinity of the City. The shallow aquifer near the City is unconfined, highly productive, and exhibits significant hydraulic connection to adjacent reaches of the Snoqualmie River. The Snoqualmie River and its respective forks in the upper Snoqualmie basin generally gain water from groundwater. In parts of the basin, the shallow aquifer overlies a deep aquifer, which is separated by intervening till in places.

Hydrogeologic conditions in the main portion of the valley near the City show a thick sequence of coarse sand and gravel (shallow aquifer) that directly overlies fine-to-medium grained sand (deep aquifer) and silty clay (lacustrine deposits). The Centennial Well, the City's current production well, is completed in the shallow aquifer.

The Snoqualmie Valley Aquifer is generally bounded by bedrock in all directions (except for small deposits of glacial and alluvial sediment that extend up the river valleys of the North, Middle and South Forks of the Snoqualmie). A surficial geologic map of the area is shown in Figure 2. The map shows that most of the lowland areas (or valleys) consist of unconsolidated glacial and alluvial deposits while the upland areas are largely bedrock. The lowland glacial deposits in the vicinity of the Centennial Well, NB-1, and NB-2 are largely mapped as alluvial deposits (Qa) and recessional outwash (Qvr), which generally consist of permeable sand and gravel deposits. Some portions of the valley areas are much lower permeability at ground surface, specifically areas mapped as glacial till (Qvt) or bedrock (e.g., TKwa).

Mount Si bounds the aquifer to the north and east of the City. Mount Si is the predominant landform in the area, with large bedrock exposures that begin near its base extend near vertically from the valley. The peak is approximately 3,500 feet above the valley floor. Mt Si Springs is located at the base of the western edge of Mt Si. Mt Si Springs represents a discharge point for water that drains the steep, western slope of Mt Si and infiltrates into a small deposit of alluvial/glacial and colluvial material at the base of Mt Si before discharging as surface water. Flow rates from Mt Si Springs vary seasonally but can range between approximately 2 to over 15 cubic feet per second (cfs; Golder 2020). Mount Si Springs has been a City water source since the 1960s.

2.2 Water Quality

Water quality can be impacted by a variety of contaminants that are a health concern for drinking water supplies. The contaminants can be broadly categorized into inorganic contaminants and organic contaminants.

- Inorganic contaminants include metals and nitrate. Metals can enter the groundwater system from erosion of natural deposits, discharge from industrial activities, or corrosion of water distribution systems. Nitrate can enter the groundwater system from erosion of natural deposits, runoff from fertilizer use, leaking septic tanks, or sewage.
- Organic contaminants include a variety of petroleum products such as gasoline, degreasing solvents, dry-cleaning solvents, and pesticides.
 - Volatile Organic Chemicals (VOCs) are organic chemicals (pesticides, herbicides and other chemicals) that are “readily vaporizable at a relatively low temperature.” Some VOCs are products of industrialization and can enter the water supply through various means, such as leakage of storage tanks, spills, or illegal dumping of toxic wastes. Another concern is Disinfection By-Products like Total Trihalomethanes (TTHMs).
 - Synthetic Organic Compounds (SOCs) are chemicals synthesized from carbon and other elements such as hydrogen, nitrogen, or chlorine. These chemicals are manufactured to meet hundreds of needs in our daily lives, ranging from mothballs to hair sprays, from solvents to pesticides.
 - Per- and polyfluoroalkyl substances (PFAS) are a large group of man-made chemicals that have been manufactured and used in a variety of industries. Two PFAS compounds, perfluorooctane acid (PFOA) and perfluorooctanesulfonic acid (PFOS) have been used in fire-fighting foam solutions PFAS, which can migrate into groundwater supplies. There is evidence that exposure to PFAS can lead to adverse human health effects.

The City monitors water quality on a three-year cycle for volatile organic, inorganic and synthetic organic chemicals. The water quality monitoring program is detailed in the City’s Water System Plan (Gray & Osborne

2020). The City's 2019 Water Quality Report provides a summary of results of water quality testing performed in 2017 and 2018 at Mt Si Springs and the Centennial Well (City of North Bend 2019). The results show that all 2017 and 2018 water quality results were below maximum contaminant levels (MCLs). Select results are summarized below:

- Water treatment is achieved by disinfection with chlorine, with disinfectant residuals in the 0.4 to 0.5 parts per million (ppm) range.
- The City is currently required to test six bacteriological samples per month for the presence of *Escherichia coli* (*E.Coli*) and fecal coliform. As of 2018, all samples have tested satisfactorily.

Inorganics

- Nitrate (Nitrate+Nitrite): Below detection limits (BD) and below 10 milligrams per liter (mg/L) MCL.
- Arsenic: 0.0084 mg/L (below 0.01 mg/L MCL).
- Iron: Below detection limits (BD) and below 0.03 mg/L MCL.
- Turbidity: 0.15 Nephelometric Turbidity Units (NTU) and below 1.0 NTU MCL.

Volatile Organic Chemicals (VOCs)

Both of the VOCs listed below are types of disinfection byproducts that can result from chlorination.

- Trihalomethanes (TTHMs): 3.1 µg/L (below 80 µg/L MCL)
- HAA5¹: <1 µg/L (below 60 µg/L MCL)

Other Testing

Additional testing was performed by the City in 2017 and 2018 and reported in the 2019 water quality report (City of North Bend 2019) for other constituents of concern. This includes:

- Lead and Copper: A total of 24 samples were collected from within the system to determine lead and copper concentrations in tap water in North Bend. The results show:
 - Lead: maximum concentration measured was 0.0036 mg/L (below 0.015 mg/L federal action level).
 - Copper: maximum concentration measured was 0.17 mg/L (below 1.3 mg/L federal action level).
- Asbestos monitoring occurred in August 2017 and the sample results showed <0.111 million fibers per liter (MFL) (below 7.0 MFL MCL).
- Synthetic Organic Compounds (SOCs): SOCs are man-made contaminants that include herbicides, pesticides, and other chemicals that come from agriculture, urban stormwater runoff, or industrial activities. The use of these synthetic organic compounds has greatly increased within the past 40 years and some can enter the groundwater. The City submitted samples for testing in September 2017 and results showed that no compounds were detected.

¹ HAA5 is a group of five haloacetic acids: dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, and trichloroacetic acid.

These results and earlier testing show that groundwater in the City is a high-quality resource that should be protected. The potential transport of contaminants in the groundwater is complex and dependent on the properties of the specific contaminants. Many organic contaminants degrade or transform in the soil or groundwater. Some inorganic contaminants, or metals, preferentially adsorb to soil particles so they do not travel in the groundwater as readily. By identifying the contaminant, it is easier to plan, avoid, and respond to groundwater contamination.

3.0 WELLHEAD PROTECTION AREA DELINEATION

The first step in developing a WHPP is to identify the land area around each well from which groundwater may be flowing to the source. These areas are the most likely to contribute pollutants to the groundwater and are referred to as zones of contribution or capture zones. Capture zones require proper land-use management to minimize potential contaminants from entering the groundwater system. The WHPAs were delineated using a combination of numerical groundwater modeling and standardized analytical methods (Section 3.1).

The WHPAs are divided into zones based on the length of time it would take a particle of water to travel from the zone boundary to the well. The travel time represents the horizontal travel time from the boundary to the water source. This allows different management strategies to apply to each zone to prevent pollution and reduce risk from different types of contaminant threats. The zones in each WHPA area include a 1-year travel time zone (including a 6-month travel time zone), a 5-year travel time zone, and a 10-year travel time zone, per DOH guidance (DOH 2010). The WHPAs also include a sanitary control area and buffer zones to account for modeling or other uncertainties.

Each zone focuses on protecting the water source from specific types of contamination.

- Sanitary Control Area: This protective area is required by WAC 246-290-135 (sanitary control area). It is a radius around each source of one hundred feet for wells and a radius of two hundred feet for springs. This area should be tightly controlled to minimize any direct contamination at the wellhead.
- Zone 1: The 1-year travel time boundary, which is managed to protect the drinking water supply from viral, microbial, and direct chemical contamination. This zone also includes the 6-month travel time boundary which focuses on protection from viral and microbial contamination where loading may pose a higher risk to the drinking water supply such that a higher level of water treatment may be appropriate.
- Zone 2: The 5-year travel time boundary, which is managed to control potential chemical contaminants.
- Zone 3: The 10-year travel time boundary, which is managed to control potential high- and medium-risk contaminant sources.
- Buffer Zone: The buffer zone, if necessary, is an additional area sloping up from Zone 3. It may include the entire zone of contribution or may focus on selected areas of concern such as recharge areas or locations where the aquifer may be exposed at the surface. A primary goal of the buffer zone is to provide information to planners on activities or facilities outside Zone 3 that could release contaminants into the wellhead protection area.

DOH's Wellhead Protection guidance document acknowledges that a number of methods can be used to delineate WHPAs, including calculated fixed radius, analytical models, hydrogeologic mapping, and numerical flow/transport models (DOH 2010). The calculated fixed radius method was developed by the EPA and uses circular protection areas for specified time-of-travel thresholds using a simple volumetric flow equation to calculate

the radii. Analytical methods include simple calculations, graphical methods, or simple analytical solution-based models to delineate wellhead protection zones. Hydrogeological mapping methods may include geologic mapping, geophysical mapping and dye tracing. Numerical flow/transport models are considered the most robust method and include two- and/or three-dimensional computer models that numerically approximate groundwater flow and solute transport equations to delineate wellhead protection areas.

3.1 Analysis

The WHPAs for the Centennial Well and NB-1 and NB-2 were delineated using a combination of the calculated fixed radius (CFR) method and numeric groundwater flow modeling (Section 3.1.1). The Mount Si Spring source is located outside the active area of the groundwater model. The Mount Si Springs WHPA was defined using a combination of analytical and graphical methods (Section 3.1.2).

3.1.1 Centennial Well, NB-1 and NB-2

The EKRWA funded development of a regional groundwater model for the upper Snoqualmie River Valley (Golder 2007b). The Centennial Well is located within the scope of the EKRWA groundwater model, so the model was used to delineate the capture zones for the Centennial Well. Well NB-1 and Well NB-2, the potential future points of withdrawal under water right permit G1-26617(A), are also located within the scope of the EKRWA groundwater model, so the model was used to delineate the capture zones for those wells. To account for uncertainty in the model results and to provide conservative WHPAs, the EPA's CFR method was also used to delineate the WHPAs. The CFR method was added to the modeled delineations for consistency with past methods and to provide additional protections given the nature of the aquifer. The final WHPAs were completed by overlaying the CFR results onto the capture zones generated from groundwater flow and transport model. This approach was selected to be conservative and protective of the resource because the potential for contamination is high due to the shallow groundwater source and unconfined and highly transmissive aquifer. The well completion details and assumptions used for each delineation method are summarized in Table 1.

Table 1: City Well Completion Details and Model Assumptions

Description	Centennial Well	Well NB-1	Well NB-2
Well Depth (ft)	216	221	130
Screen Interval (ft bgs)	153 to 203	152 to 211	121 to 126
Well Diameter (inch)	20	16	6
Assumed Pumping Rate for Modeled Capture Zone Analyses	2,646 gpm (maximum instantaneous pumping rate allowed under water right permit G1-26617(A))		
Assumed Pumping Rate for CFR Analyses	3,094 acre-feet per year maximum annual withdrawal allotted under G1-26617(A)P)		

Note: Well NB-2 was installed as a test well, production well not yet installed at this location.

3.1.1.1 Groundwater Model Capture Zones

The EKRWA groundwater model was constructed in 2007 using MODFLOW 2000 (McDonald and Harbaugh 1988). The model was recalibrated using results from the aquifer test performed at the Centennial Well (NB-3) in September 2010 (Golder 2010). Model calibration included varying hydraulic properties (hydraulic conductivity (K) and storage parameters). The model was calibrated to measured water levels and drawdown at monitoring wells near the Centennial Well (TW-6, GEI-6, Randall-Well, RH2-MW2 and the Tree Farm Well) during the pumping tests conducted at the Centennial Well from September 13 to 16, 2010 (Golder 2010). The model achieved a good fit between simulated and measured groundwater elevations and drawdown. The calibrated conductivity field was also consistent with the hydraulic test results.

In order to improve model resolution and more accurately define the capture zones, the model grid spacing was adjusted in the vicinity of the City wells. The size of the groundwater model cells was refined from 400 feet by 400 feet to about 50 feet by 50 feet for an area about 1,000 feet wide and 1,000 feet long centered on each well location. A maximum grid change ratio of 1.5 was used in order to gradually adjust the size of the grid cells away from the cells containing the wells.

The updated version of the EKRWA model was used to simulate maximum instantaneous pumping rate (2,646 gpm) allowed under water right permit G1-26617(A) at wells NB-1, NB-2 and the Centennial Well (NB-3). The maximum instantaneous pumping rate was allocated to each well individually and the model was run. While assuming the maximum instantaneous pumping rate is conservative for indicating the WHP, this approach was selected because it provides the best understanding of potential source water to each groundwater well.

Capture zones for the City wells were delineated using the particle tracking software MODPATH version 5.0 (Pollock 1994) in Groundwater Vistas version 7.24 (ESI 2017). MODPATH uses a particle tracking scheme that allows an analytical expression of the particle's flow to be obtained within each grid cell. Particle paths are computed by tracking from one cell to the next until the particles reach a boundary, an internal sink/source, or a pre-defined termination criterion is satisfied (Pollock 1994). In order to define groundwater flow paths in proximity of the City's wells a combination of reverse and forward particle tracking analysis was used:

- For reverse particle tracking: a total of 100 particles were placed in the revised model in concentric circles around each well. The particles were tracked backward, and time of travel markers were placed along the particle paths indicating the six-months, one-year, five-year, and ten-year time-of-travel zones.
- For forward particle tracking: one particle was placed in each cell located up-gradient of the wells. Particles were placed in all model layers. The particles were tracked forward and the particle paths terminating at the well locations were used to define the capture zone of the wells. The capture zones identified using the forward tracking method were generally very similar to those identified using the backward method. The capture zones identified using the forward tracking method were used to verify and modify, where needed, the capture zones delineated during the backward analysis.

The WHPAs were delineated from the capture zones by creating polygons around the particle tracks, with some minor modifications and buffer zones added to account for uncertainties in the numerical simulations.

3.1.1.2 Fixed Radius Calculations

The EPA's CFR method was also used to delineate the WHPAs for the Centennial Well, NB-1 and NB-2. The CFR method incorporates porosity, pumping rate, and well screen length to estimate a radial distance for

6-month, 1-year, 5-year, and 10-year groundwater travel times (DOH 2010). The parameters used in the CFR calculations are as follows:

- Pumping Rate of 3,094 acre-feet (AF) per year, which represents the maximum annual withdrawal allotted under G1-26617(A)P.
- Porosity of 0.22, based on EPA guidance and professional judgment.
- Well Screen Lengths of 50 feet for the Centennial Well and 59 feet for NB-1 (constructed screen intervals) and 50 feet for NB-2 (assumed screen length same as NB-3 because production well has not been installed at this location).

3.1.1.3 Final Wellhead Protection Areas

The groundwater model and CFR results were merged using standardized procedures in ESRI's ArcGIS version 10.4.1. The final WHPAs for the Centennial Well, NB-1 and NB-2 are provided in Figures 3, 4, and 5, respectively. The CFR results extend in concentric circles around each wellhead. The WHPA boundaries from the groundwater model extend up-gradient in a more "tail-like" manner to represent the modeled well capture zones (recharge areas) for each time interval. Because the WHPAs overlap in some areas, particularly for the Centennial Well and NB-1, the WHPAs sources were combined in Figure 6. Figure 6 presents the combined WHPAs for areas inside the City limits. The WHPA for Mount Si Springs is located outside of the City limits and does not overlap with the other WHPAs (Figure 7).

3.1.2 Mount Si Springs

The Mount Si Springs capture zone is defined as the area required to produce sufficient groundwater recharge to account for the discharge rate of the spring. The original Mount Si spring capture zone, from the City's 2010 Water System Plan (Gray & Osborne 2010), covered 26 acres and it was assumed to be shaped like a funnel extending up the slope from the springs. The capture zone has been revised for this report, based on the hydrogeological and geomorphological conditions of the upland area surrounding the spring, in order to more fully cover the spring's drainage basin.

The spring capture zone was delineated using a contributing area approach combined with fixed-radius methods. This approach consists of first delineating the sanitary control area (200-foot radius per WAC 246-290-135) and then delineating a larger circular area around the spring pond using the CFR method (EPA 1987). The capture zone area was extended to the upland area surrounding the spring. The upslope capture area boundary was outlined taking into account topographic and geomorphological settings of the area, including surface fracture traces that likely indicate zones of higher permeability, and surface drainage patterns (Figure 7).

3.2 Land-Use

The City's groundwater wells (Centennial Well, NB-1 and NB-2) are located in relatively close proximity to the City's downtown area and land-use in the immediate vicinity of the well locations is a mix of residential and commercial designations. Mount Si Springs is located further north and adjacent to low-density residential and undeveloped land. The City's land-use zoning designations (as of 2018) and boundaries are shown in Figure 8. The WHPAs extend outside of City limits and into unincorporated King County. King County zoning districts are shown for the areas outside of City limits and urban growth areas. Most areas outside of City Limits are rural and generally consist of rural to low-density residential land and open space. Residences outside of City Limits and in low-density areas may have septic drain fields. Where possible, similar source protection strategies will be

utilized for the portions of the WHPAs that are part of unincorporated King County. This may include landowner communication with residences that have septic drain fields (Section 6.3). A description of the land-uses within the vicinity of each water source and wellhead protection area are provided below.

3.2.1 Centennial Well (NB-3)

The Centennial Well is located at the City's Public Works complex (Figure 3). The sanitary control area (100-foot radius) is mostly within City property, with a small portion of the southern edge of the control area extends into the public right of way adjacent to Cedar Falls Way. Adjacent and nearby properties along North Bend Way are primarily designated residential or neighborhood businesses. Further east/southeast (along North Bend Way) the designated land-uses include industrial areas, low-density domestic, and commercial land. The 10-Year capture zone boundary for Centennial Well ends in the vicinity of the "truck stop" and adjacent businesses north of Interstate 90 at Exit 34. The area to the north of North Bend Way and further north (i.e., north of the Middle Fork Snoqualmie River) is mostly outside of City limits and the land-uses are predominantly open space and rural domestic. The area south of the Centennial Well is primarily low-density residential or open space.

3.2.2 Mount Si Springs

Mount Si Springs is located in the northern portion of the City in an area that is primarily zoned as rural and open space. The City owns two parcels that cover approximately 90-acres and encompass the springs and the immediate up-gradient areas. The areas further up-gradient (to the south and east) is undeveloped public open space, owned by either the Department of Natural Resources (Mount Si Natural Resources Conservation Area) or the United States Forest Service. There are adjacent domestic residences to the north and west that are included in the WHPA. The other domestic residences in the area are inferred to be either down-gradient or cross-gradient of the springs. These residences are presumed to have septic drain fields.

3.2.3 NB-1

Well NB-1 is located in Torguson Park, which is a designated open space (Figure 4). To the north of the park is the Snoqualmie Valley Trail right-of-way (ROW) and further north is a mix of domestic properties, undeveloped land and farmland. Some of these properties are on septic systems. The 1-year WHPA includes businesses along North Bend Way and the western edge of the 1-year capture zone includes portions of the Downtown Commercial zone. The US Forest Service buildings and Ranger Station on North Bend Way is designated as a Neighborhood Business and also lies within the 1-year capture zone. The larger wellhead protection areas for NB-1 (5-year and 10-year) are similar to the Centennial Well WHPAs.

3.2.4 NB-2

Well NB-2 is located in Gardiner Weeks Park adjacent to the west of North Bend Way (Figure 5). The well is on an approximate 3-acre undeveloped parcel owned by the City and designated as POSPF (Parks, Open Space, and Public Facilities). The eastern edge of the 100-foot sanitary control area extends into the North Bend Way right-of-way. The land to the east of the North Bend Way is also part of Gardiner Weeks Park and is designated as POSPF. The City's downtown corridor is adjacent to the north and east of Gardiner Weeks Park and is designated mostly as either High-Density Residential or Downtown Commercial. The South Fork Snoqualmie River is adjacent to the southwest of Gardiner Weeks Park. The land further south and west is designated as Employment Park (Nintendo Campus) and mixed-use (residential and commercial). The 1-year WHPA for NB-2 includes most of the Downtown Commercial zone.

4.0 RISK ASSESSMENT

The purpose of the risk assessment is to assess the vulnerability and risk of drinking water sources to potential impacts. This evaluation starts with a susceptibility assessment of the water source to determine the susceptibility of the water source to contaminants discharged at the surface. This assessment is then expanded geographically through an inventory of potential contaminant sources in the wellhead protection area to identify past, present and proposed activities that could threaten the water-bearing zone (aquifer) used by the well, spring, or well field. These assessments should be updated every two years. Information gathered through the inventory process can be used to evaluate risks posed to the wellhead protection area, and to prioritize actions and management efforts directed towards high priority sources.

4.1 Susceptibility Assessment

Susceptibility assessments for the City's sources have been completed and submitted to the Department of Health and copies are included in Appendix A. Susceptibility assessments are an important initial step in selecting appropriate delineation methods to define the wellhead protection area boundaries. Drinking water supplies vary as to their susceptibility to contaminants discharged at the surface. Poorly constructed wells have an increased susceptibility. In addition, sources located in an unconfined aquifer with no confining layer (layer of low permeability) between the aquifer and surface have a much higher susceptibility. Drawing water from confined aquifers deep below the ground surface provides the best source of protection.

The Department of Health has given both Mount Si Springs and the Centennial Well a high susceptibility rating. The Centennial Well is particularly susceptible to potential contamination because the well is located near residential and commercial developments and is completed in an unconfined aquifer with a relatively shallow water table. Based on the location and aquifer encountered at Wells NB-1 and NB-2, it is anticipated that these wells will have a similar susceptibility rating.

4.2 Contaminant Source Inventory

An essential element of source protection is an inventory of all potential sources of groundwater contamination in and around the delineated protection areas. The purpose of the inventory is to identify past, present, and proposed activities that may pose a threat to the source or surrounding area. The inventory can also help to plan management strategies and establish a mailing list of businesses located within the source protection areas.

The inventory of potential contaminant sources was compiled by Environmental Data Resources, Inc. (EDR), an environmental database research company. EDR reports provide listings from federal, state, and third-party environmental databases for any known or potential contaminate sites within the WHPAs. The EDR Report provided results from a total of 34 databases, which EDR categorizes as either: "Standard Environmental Records", "Additional Environmental Records", and "EDR Historical Records". Many listed sites appear in one or more databases. The complete EDR Report is provided in Appendix B (electronic only). Some of the mapped EDR locations were modified based on known locations or using the property address and/or business names provided in the databases.

The contaminant source inventory (CSI) presented herein utilizes the listings in EDR's "Standard Environmental Records" databases (9 databases). Additionally, two databases from those listed as "Additional Environmental Records" by EDR were also included in the CSI because they were determined to be particularly applicable to the City's WHPP. Details are provided in Table 2 (inset below).

Sites that are listed in the EDR databases described above and are located in the mapped WHPAs are shown in Figures 9, 10, and 11 for the Centennial Well, NB-1 and NB-2, respectively. No listed sites were identified in the Mount Si Springs WHPA. The sites are summarized in Table 3 (attached). Table 3 includes the WHPA that each of the sites are located in, along with the land-use designation for each site and a hazard rating. The hazard rating was developed subjectively based on the database type and the WHPA listing, as detailed in Table 2. Some of the ratings shown in Table 3 were adjusted based on the details provided in the EDR reports (for example, if documentation shows a UST was removed without evidence of contamination or if the site is issued a No Further Action status). Site-specific hazard rating modifications are noted in Table 3.

Table 2: Description of Environmental Databases and Hazard Rating System

EDR Database Category	EDR Database	Database Description	WHPA Hazard Rating			
			6-Month	1-Year	5-Year	10-Year
Standard	CSCSL	State Confirmed and Suspected Contaminated Sites List	High	High	Moderate	Low
Standard	LUST	State Leaking Underground Storage Tanks Site	High	High	Moderate	Low
Standard	ERNS	Federal Emergency Response Notification System	Moderate	Moderate	Low	Low
Standard	HSL	State Hazardous Sites List	High	High	Moderate	Moderate
Standard	ICR	State Independent Cleanup Reports	High	High	Moderate	Low
Standard	RCRA-VSQQ	Federal RCRA generators List	Moderate	Moderate	Low	Low
Standard	SWF/LF	State Solid Waste Facility Database	Moderate	Moderate	Low	Low
Standard	UST	State Underground Storage Tanks Site	Moderate	Moderate	Low	Low
Standard	VCP	State Voluntary Cleanup Program Site	High	High	Moderate	Low
Additional	SPILLS	State Emergency Release Reports	High	High	Moderate	Low
Additional	UIC	State Underground Injection Wells Listing	Moderate	Low	Low	Low

The WHPAs were also overlain with the sewer system map, flood maps, and transportation network to identify additional sources of potential contamination. A sub-set of the sites listed in the EDR report were reviewed during a field survey. Businesses and other private properties were inspected only from public right of ways. Building interiors were not inspected. The exception is the property and shop building at the City's Public Works facilities, which is located near the Centennial Well.

Visual observations indicated that most of the properties were kept relatively clean and there was little evidence of large environmental concerns. However, leaks and spills could potentially infiltrate into the shallow aquifer. Also observed during the windshield surveys was a general lack of any secondary containment controls at any of the properties, including the City's Public Works shop. The need for secondary containment should be included in the notifications that City should send to businesses and residences inside designated wellhead protection areas (Section 6.3).

4.2.1 Centennial Well (NB-3)

The Centennial Well is located on the City's Public Works property. The Public Works shop area is outside of the Well's sanitary control area. The known contaminated sources within the Centennial Well WHPA is shown in Figure 9 and detailed in Table 3. The public works property itself is listed in the FINDS (Facility Index System), ECHO (Enforcement & Compliance History Information), and RCRA NLG (Federal RCRA generators list, No Longer Required) databases. The property contains storage and service facilities associated with the City's Public Works Department vehicles and equipment. Oil and diesel and various other chemicals are stored in the shop area.

There are several businesses across North Bend Way from the Public Works property within the 6-Month WHPA and the City Fire Station (constructed in 2013) is located approximately 1,000 feet northwest of the Centennial Well and also located within the 6-Month WHPA. The contaminant source inventory shows the following number of sites within each WHPA:

- 6-month travel time: 3 sites
- 1-Year WHPA: 3 sites (includes 6-month travel time)
- 5-Year WHPA: 35 sites (outside of the 1-Year WHPA)
- 10-Year WHPA: 0 sites (outside of the 1-Year and 5-Year WHPAs)

The sites inside the 6-month travel time of the Centennial Well include:

- North Bend Auto Parts (Now NAPA Auto Parts) at 1120 E North Bend Way is listed for RCRA-VSQQ: (Very Small Quantity Generators). VSQQs generate 100 kilograms or less per month of hazardous waste. The site is 600 feet northwest of the Centennial Well. This site is suspected of soil contamination by petroleum products. A voluntary cleanup program was completed at this site in 2008 and as a result, it is considered to represent a low risk the Centennial Well.
- The Auto repair shop on 1130 E North Bend Way is listed for CSCSL, LUST, UST and VCP. The site is 500 feet northwest of the Centennial Well. According to the UST database, the underground tank(s) were removed from the property in 1998. This site was suspected of soil contamination by petroleum products but there was no documented groundwater contamination. A voluntary cleanup program was completed at this

site in 2008. Because the tanks were removed in the late 1990s and the site is part of the voluntary cleanup program, the hazard rating was reduced to moderate (Table 3).

- North Bend (USFS) Ranger Station on 42404 SE North Bend Way is listed in the UST database. The tank was removed as of 1996 and no reports of contamination were documented. As a result, the hazard rating was reduced to low (Table 3).

The northern, southern, and eastern extents of WHPA are mostly domestic property, a large portion of which is not part of the City's sewer system and many of these properties likely use on-site septic systems.

4.2.2 Mount Si Springs

The WHPA for Mount Si Springs extends to the southeast and encompasses mainly City Property and State and Federal owned land that is undeveloped and presumably is protected from future development. None of the known contaminated sites listed in the EDR report lie within the Mount Si Springs WHPA. The WHPA also extends slightly to the north, east, and west of the springs and encompasses at least a portion of several domestic residences adjacent to the City's property (Figure 7). These residences have septic systems and the migration of contaminants from septic drain fields into the WHPA is the only current concern for hazards at the Mount Si Springs site.

4.2.3 NB-1

Well NB-1 is located in Torguson Park, approximately 2,500 ft north-northwest of the Centennial Well. Torguson Park occupies the area adjacent to the wellhead. The NB-1 WHPAs extend further west than the Centennial Well's and therefore captures more the downtown corridor. As a result, there are more known potential contaminant sources in the NB-1 WHPA. The contaminant source inventory for NB-1 is shown on Figure 10 and summarized in Table 3, and shows the following number of sites within each WHPA:

- 6-month travel time: 3 sites
- 1-Year WHPA: 11 sites (includes 6-month travel time)
- 5-Year WHPA: 36 sites (outside of the 1-Year WHPA)
- 10-Year WHPA: 0 sites (outside of the 1-Year and 5-Year WHPAs)

The sites inside the 6-month travel time of NB-1 include:

- A registered UIC injection well associated with the River Glen development on Picket Avenue. The site is described as infiltration trench with perforated pipe designed to infiltrate municipal stormwater. It was constructed in 2016. The exact location of the site is unknown, but it is estimated to be 700 feet northeast of NB-1.
- There was a reported spill (SPILLS database) on 209 Thrasher Avenue, which is approximately 200 feet south of NB-1. It was reported in 2002. No other details are available.
- The registered UST at the North Bend (USFS) Ranger Station on 42404 SE North Bend Way is also within the 6-month capture zone of NB-1. The tank has been removed (Section 4.2.1).

There is a lot of overlap between the NB-1 and the Centennial Well WHPAs. Most of the sites within the 5-Year and 10-Year WHPA for NB-1 are also within the Centennial Well WHPA. To the north of the park and NB-1 is the

Snoqualmie Valley Trail ROW and further north is a mix of domestic properties, undeveloped land and farmland. Some of these properties appear to be on septic systems.

4.2.4 NB-2

Well NB-2 is located off Bendigo Boulevard, near Gardiner Weeks Park. As described in Section 3.2.4, NB-2 is located near the downtown corridor and the 6-month and 1-year WHPA extend into the downtown commercial area. There are numerous businesses in this area, including current and former gas stations. The area within the NB-2 WHPA is the most developed of the four water withdrawal locations, and as a result, there are more listed sites within the NB-2 6-Month and 1-Year WHPA. The contaminant source inventory for NB-2 is shown on Figure 11 and summarized in Table 3, and shows the following number of sites within each WHPA:

- 6-month travel time: 12 sites
- 1-Year WHPA: 16 sites (includes 6-month travel time)
- 5-Year WHPA: 16 sites (outside of the 1-Year WHPA)
- 10-Year WHPA: 0 sites (outside of the 1-Year and 5-Year WHPAs)

The closest known contaminant sources are located along Bendigo Boulevard (also referred to as North Bend Boulevard) or along North Bend Way near the intersection with Bendigo Boulevard. These sites are within approximately 1,00 feet of the NB-2. The listings include multiple LUSTs and Confirmed and Suspected Contaminated Sites listings (CSCSL). Additional details are provided in Table 3.

The NB-2 WHPAs extend more southerly than the other WHPAs and the southern portion of the NB-2 WHPA is mainly low-density domestic area and open space. There are no known contaminant sources in the outlying area (i.e., 10-Year WHPA).

4.3 Vulnerability Assessment

Aquifer vulnerability considers both the susceptibility of the water sources and nearby land-use activities and contaminant sources that could potentially impact water quality. Mount Si Springs has a very low vulnerability because the wellhead protection area is on undeveloped land that extends up Mount Si (Section 3.1.2). The Centennial Well and the potential future groundwater sources (NB-1 and NB-2) are much more vulnerable given the hydrogeologic setting and various land-uses that occur within the WHPAs.

The Centennial Well, NB-1 and NB-2 are completed in the Snoqualmie Valley Aquifer, which is composed primarily of coarse-grained alluvial and glacial sands and gravels. The aquifer is unconfined and highly transmissive. The water table is relatively shallow and generally between 10 and 20 feet bgs. The alluvial and glacial sediments are present at ground surface, as shown on Figure 2, which allows for rapid infiltration and migration of potential contaminants to groundwater. An example of the potential vulnerability of the City's groundwater supply: a Sallal Water Association drinking water supply well (Sallal Well #2) is located in the same aquifer system and has been challenged with pathogenic contamination derived from an unknown source; resulting in boil water orders. Sallal Well #2 is upgradient of the Centennial Well (and NB-1 and NB-2) and outside of the City's WHPAs presented in Section 3.

The land-use activities that are considered as having the potential to contaminate the City's groundwater sources are provided below.

4.3.1 Commercial and Industrial Activity

Areas of commercial and industrial land-use are located within the Centennial Well (and NB-1 and NB-2) wellhead protection boundaries. Businesses that may contribute contaminants to the groundwater include dry cleaners, gas stations and other businesses with fuel storage tanks, auto repair shops, metal plating facilities, asphalt and concrete facilities, and machine shops. Other industrial activities, including aggregate mining operations, are located inside the 5-year capture zone of the Centennial Well (Section 4.2.1). Wastes generated at these various businesses include substances such as petroleum products, solvents, surfactants, heavy metals, and other organic materials. These wastes can potentially enter the groundwater system through inadequate disposal practices or accidental spills.

There are numerous commercial and industrial activities inside the Centennial Well WHPA. Of note is the North Bend Fire Station that was completed in 2013 and is located approximately 1,000 feet west of the Centennial Well and is within the 6-Month travel time area. The Fire Station could house various chemicals and other potential contaminants. These may include fire-fighting foams that contain per- and polyfluoroalkyl substances, known as PFAS.

4.3.2 RCRA Generators

The siting and operation of facilities which treat, store, or dispose of hazardous waste are subject to the requirements of the Resource Conservation and Recovery Act (RCRA), subtitle C. In Washington State, the Department of Ecology (Ecology) regulates facilities which generate more than 220 pounds of hazardous waste per month under WAC 173-303, Dangerous Waste Regulations. The regulations are significant in that they establish a number of requirements for these facilities including surveillance and monitoring, record keeping, performance and design criteria, and siting and closure procedures. Ecology divides the facilities into three levels of hazardous waste accumulation: Level 1 facilities generate 2,200 pounds of waste per month or more; Level 2 facilities generate between 220 and 2,200 pounds per month; and Level 3 facilities generate less than 200 pounds. Level 3 generators are exempt from the regulations. All Level 1 and 2 facilities must initially file a report of activities with Ecology and update those activities annually. A summary of these activities is published by Ecology, thereby allowing water purveyors the opportunity to determine the types of activities present within WHPAs.

There are two sites within the City's WHPAs that are listed as RCRA-VSQG: (Very Small Quantity Generators; Formerly Conditionally Exempt Small Quantity Generators):

- The North Bend NAPA Auto Parts Store on North Bend Way is within the 6-month travel time for the Centennial Well and the 1-Year WHPA for NB-1.
- The Safeway on Mt Si Blvd is within the 5-Year WHPA for NB-2.

4.3.3 Underground Storage Tanks

Underground storage tanks (USTs) and leaking underground storage tanks (LUSTs) can be a major threat to groundwater quality. Petroleum products which may contain impurities that are mobile in the groundwater system are the most commonly stored substances in USTs. The EPA estimates that 35 percent of all USTs may be leaking. The most common causes of leaks are structural failure, corrosion, improper fittings, and improper installation.

Ecology regulates underground storage tanks in Washington State under WAC 173-360. The regulations require that owners and operators of underground storage tanks comply with the following sections of the regulations:

- Notification, reporting, and record keeping
- Performance standards and operating closure requirements
- Registration and licensing
- Financial responsibility

Owners and operators of all existing nonexempt underground storage tanks must have a permit from Ecology. A valid permit is a requirement for delivery of regulated substances. The permit must be updated annually.

Underground storage tank inspections are performed by Ecology primarily through the information developed in the permitting process. Ecology maintains a file on all permitted USTs and all known LUSTs in Washington State. The file provides the site name and address, tank identification number, date of installation, size, tank status, and the substance stored at the site. There is a total of 8 known LUSTs and 13 registered USTs within the 6-month travel time and 1-year WHPAs for the Centennial Well, NB-1 and NB-2 (Table 3 and Figures 9 to 11).

Under the Model Toxics Control Act (MTCA, WAC 173-340), Ecology is responsible for ensuring that hazardous waste sites, including LUSTs, are properly remediated. Most of the USTs and LUSTs with the WHPAs have completed (or are currently completing) Ecology's Voluntary Cleanup Program and therefore the hazard rating for some of these sites have been reduced (Table 3). One UST/LUST site of note is the auto repair facility across from the Public Works Complex on 1130 E North Bend Way (Section 4.2.1).

4.3.4 Septic Systems

King County is responsible for regulating and permitting residential and small commercial on-site sewage disposal systems within the county, excluding federal facilities. Contaminants associated with septic tank effluent include pathogenic organisms, toxic substances and various nitrogen compounds (such as ammonia and nitrate) that are highly soluble in water. Most septic drain fields discharge effluent to the unsaturated zone above unconfined aquifers, and other contaminants can percolate to the saturated zone and contaminate groundwater. Pharmaceuticals, personal care products and other chemicals are also an increasing concern in wastewater recharged to drinking water aquifers although there should be a similar concern from septic systems that provide less treatment before effluent is discharged. This includes both residential units and commercial businesses with septic systems.

A properly designed septic system can provide reasonable protection to groundwater from contamination by pathogenic organisms. Nitrate and ammonia discharging from septic systems are generally small enough amounts and have adequate dilution in the groundwater aquifer not to present a problem. However, an improperly designed septic tank drain field in highly porous soils can allow pathogens to reach groundwater supplies unimpeded. Evidence of this type of septic system failure is not readily visible since drainage from these systems does not cause ponding or odor problems. Two practical ways to protect against this type of problem are to:

- Ensure that all new septic systems going into areas of excessively draining soils in the WHPAs are carefully designed and properly installed; and

- Ensure that all water supply wells withdrawal water from beneath a protective confining (low permeability) layer such as till. (This will not be possible for the existing City water sources.)

Relatively old septic systems, constructed under less stringent standards compared to those currently used, pose a higher contaminant risk to groundwater. Many of these older systems were constructed for entire neighborhoods and are in soils that drain adequately but may not provide sufficient treatment.

Another common threat from septic systems is from improper use. Septic systems are not designed for removing all chemicals. Solvents, fuels, waste oil, photo chemicals and a wide variety of other wastes pass through septic systems without any effective treatment before discharging to groundwater. High concentrations of solutions can be transmitted through low permeability geologic strata. The most effective approaches in a WHPA to reduce the amount of inappropriate materials being discharged into septic systems include public education, assistance with appropriate toxic waste disposal and enforcement authority over improper disposal.

A review of the City's sewer connections, as provided by the City, suggests there are septic drain fields inside the wellhead protection areas. This includes septic drain fields at the residences in the La Forest Drive residential development, which is located approximately 1,500 feet southeast and up-gradient of the Centennial Well (shown on Figure 9). The development is within the Centennial Well's 1-year WHPA (the northwestern portion of the development is within the 6-month WHPA). There are also septic drain fields at residential properties adjacent to Mount Si Springs. Recommendations regarding groundwater monitoring down-gradient of the La Forest Drive drain field and community education outreach to homeowners with on-site septic systems are provided in Section 6.3.

4.3.5 Accidental and Transportation Spills

Confirmed and suspected sites of contamination such as accidental spills or releases of contaminants can potentially impact groundwater supplies. Potential sources of spills and leaks can originate from underground storage tanks, accidents, and poor disposal practices. The City manages spills under the Comprehensive Emergency Response Plan (City of North Bend 2015), which details the steps and actions needed to respond to accidental spills (Section 5.1). Ecology is responsible for ensuring all hazardous waste sites are properly remediated under MTCA. The City's spill response plan is described in Section 5.1.

Spills or leaks from vehicles and cargo are significant hazards and the major highways and arterials in the WHPA include Interstate 90 (I-90). Hazardous chemicals are transported daily on I-90. Inadvertent chemical spills or discharges through accidents can result in contamination to groundwater. Various chemicals may be transported on interstate or local highways within the North Bend area. For example, a tanker truck can carry as much as 10,000 gallons of hazardous substances. Historically, most transportation spills have been along the major highways and arterials. Emergency spills are reported to Ecology. This information is stored and is publicly available. The spills recorded with the City's WHPAs is included in the Contaminant Source Inventory (Section 4.2 and Table 3). A total of 9 documented spills (SPILLS database) were reported within the 6-month and 1-year WHPAs (Table 3 and Figures 9 to 11).

4.3.6 Improperly Sealed or Secured Wells

Improperly sealed or secured wells can act as direct conduits for contaminants to reach groundwater. A list of wells within the zones of contribution is provided in Appendix C. The City should send a letter to these well owners notifying them of the possibility of contamination to the aquifer from which their water supply originates. Flush mount monitoring wells are potential pathways for contaminants because stormwater can accumulate in the

sub-grade annulus surrounding the well, which can then leak into the well if the well cap is not properly secured. There is at least one flush mount monitoring well within approximately 400 feet of the Centennial Well on the Public Works property (formerly known as MW-6).

4.3.7 Confirmed or Suspected Contamination Sites

Sites with confirmed or suspected contamination are managed by Ecology under MTCA. Ecology requires an initial site investigation within 90 days of learning of a potentially contaminated site. If this investigation shows that remediation action is required, the site will appear on the Confirmed and Suspected Contaminated Sites Report (Section 4.2). Ecology has developed a numerical ranking system in order to guide Ecology's use of cleanup resources. The rankings are determined based on the substance characteristics, the site characteristics, and the exposure potential. Once the remedial action has been completed, Ecology's Toxics Cleanup Program determines if the site can be removed from the list.

A total of 5 sites are listed as confirmed or suspected sites of contamination (CSCSL database) were reported within the 6-month and 1-year WHPAs. This includes the NAPA Auto Parts site within the Centennial Well's 6-month WHPA (Section 4.2.1).

4.3.8 Stormwater

Stormwater is rain that runs off hard surfaces on developed land. Impervious surfaces such as rooftops, streets and parking lots generate stormwater which can then pick up and transport pollutants such as oil, pesticides, and household and animal wastes. Typically, stormwater quality is more impacted in industrial areas and high-density commercial and residential areas but less of a concern in lower density and rural areas. Untreated stormwater discharges have been identified as major sources of contamination to surface water throughout the state of Washington. Untreated stormwater also can contribute to contamination of groundwater in areas where surficial soils provide insufficient treatment for contaminants or where direct conduits to the aquifer occur.

The City has approval authority for the construction of stormwater systems within City limits. Treatment of stormwater and on-site infiltration of generated runoff is required for all development projects where practicable. Despite recent improvements in requirements related to stormwater treatment and management, challenges remain in how to address older stormwater systems and the continued creation of new impervious surfaces from increasing urban density. With respect to stormwater management, the City is most susceptible to potential groundwater contamination from untreated stormwater generated from commercial and high-density residential areas in the vicinity of the Centennial Well. The City's stormwater conveyance infrastructure is shown in Figure 12. The figure shows that stormwater in the downtown corridor and high-traffic areas is conveyed into the City's sewer system via pipeline. In less developed portions of the City (i.e., east of downtown), the conveyance infrastructures include unlined ditches and detention ponds, which allows stormwater to infiltrate. Other types of informal stormwater conveyance infrastructure, like ditches, may be present in portions of the WHPAs that are outside of City limits. There are several stormwater detention ponds within the Centennial Well's 1-Year WHPA (Figure 12). Public Works personnel have indicated that the City has adopted the 2009 King County Stormwater Design Manual and requires all public and private construction projects in the City to follow it for temporary and permanent stormwater and erosion control (DeBerg 2020).

Stormwater Underground Injection Control (UIC) wells are used to reduce stormwater run-off but can, potentially, create a shortened pathway for groundwater contamination from stormwater. Ecology issued new guidance for UIC Wells as part of the 2019 revisions to the Stormwater Management Manual for Western Washington (Ecology 2019). The revisions include clarifications and restrictions on where UIC wells may be used to manage

stormwater. The minimum requirements included in the 2019 revisions that are applicable to wellhead protection include:

- UIC Wells are not permitted within sanitary control areas for drinking water sources (100-foot radius for wells and 200-foot radius for springs).
- Basic treatment to remove solids prior to discharge is required for UIC wells located in WHPAs for water sources with high-susceptibility ratings by DOH (i.e., applicable to both the Centennial Well and Mount Si Springs).
- All UIC owners must complete an assessment for UIC wells built before February 3, 2006 (if this has not already been completed).
- Treatment is required for all stormwater from pollutant generating surfaces.

There are 8 registered UIC wells located within the WHPAs, as shown in Figure 12 and summarized in Table 3. No UIC Wells are located within the 1-year WHPA for the Centennial Well and no UIC Wells are located within the Mount Si Springs WHPA. Additional details are provided below:

- There is a registered UIC well at the 76 Gas Station at 520 E North Bend Way, which is located within the 1-Year WHPA for NB-1 and the 5-Year WHPA for the Centennial Well and NB-2.
- There is a registered UIC well at the Chinook Lumber site at 436TH Ave SE and Cedar Falls Way, which is within the 5-Year WHPA for both the Centennial Well and NB-1.
- A UIC well on NE 3rd Street is registered to the City of North Bend (5-Year WHPA for the Centennial Well, 1-Year WHPA for NB-1, and 10-Year WHPA for NB-3). The City is planning to transfer the maintenance requirements of this facility to the River Glen Homeowners Association.
- All other registered UIC wells are associated with residential developments.

4.3.9 Flooding

Climatic and topographic conditions of the upper Snoqualmie River Valley create two distinct high-water periods each year: 1) snowmelt in the spring and summer and 2) heavy winter rainfall events that in higher elevation areas may occur as rain on snow. Rain on snow events create winter flooding with damaging high. Most of the major floods on the Snoqualmie River have occurred during the winter months (November through February).

The FEMA flood hazard delineation for City is shown in Figure 13. The map shows that on the east side of the City, most of the flood zones (i.e., areas within the 100-Year floodplain) are generally confined to Middle Fork and South Fork Snoqualmie River valleys, with the potential for some low-density residential areas in proximity to these rivers to be inundated during flooding. The Centennial Well and adjacent areas are outside of the mapped flood hazard areas.

Much larger areas of the eastern and northern portions of the City, including the entire downtown corridor, lie within the 100-year floodplain. The greatest risk from flooding with respect to wellhead protection is from floodwater picking contaminants from commercial and residential areas and infiltrating to groundwater. This could potentially include areas adjacent to NB-1 and NB-2. The Centennial Well has a lower risk because most of its WHPA is outside of flood zones, although portions of the North Bend Way to the northeast of the immediate area

around Mount Si Springs is part of a flood zone but adjacent and up-gradient areas are not considered flood hazard areas.

Another potential type of flood occurrence in the City (other than river flooding) can result from extremely high groundwater levels. The runoff generated from these events can exceed the conveyance capacity of manmade drainage systems. This typically occurs with moderate-to high-intensity storms that can last for several days or occur in succession over a period of weeks and are characterized as rainfall of 3 inches or more in a 24-hour period (Gray & Osborne 2012). This type of flooding generally occurs gradually but can result in widespread flooding along conveyance corridors like streets, streams, ditches, culvert systems, and storm drains.

Flooding hazards can impact WHPAs because flood water can carry and transport dirt, oil, animal waste, and lawn, farm and industrial chemicals. Potentially these contaminants can infiltrate into groundwater as floodwaters subside. Another concern is that improper well construction, or very high flood events can short circuit flood water into wells and wellheads.

4.3.10 Landfills

A landfill is a disposal facility in which solid waste is permanently placed. Minimum functional standards for solid waste hauling are regulated by Ecology under WAC 173-304. These regulations set siting and closure criteria, performance standards, and operating requirements for landfills. Abandoned and improperly maintained landfills and dump sites are often a major source of groundwater contamination. Leachate from landfills poses a threat to groundwater quality should it migrate to the water table. Ecology is responsible for mitigating dump site cleanup when potentially hazardous leachates are present. There are no active landfills within the WHPAs of the City's sources.

4.3.11 Pesticide and Fertilizer Use

Fertilizers and pesticide use within the WHPAs may include pesticides applied by USDA-certified pesticide applicators (e.g., by landscape services) and homeowner use for yard maintenance and home pest control. The City may occasionally apply fertilizers and/or herbicides to the ballfields at Si View Park or Torguson Park (vicinity of NB-1). Fertilizers may also be applied to the lawns at the domestic residences and the small cemetery up-gradient of the NB-3. Fertilizers contain nitrogen in the form of ammonia or nitrate. Nitrate is highly mobile in groundwater, and fertilizer applications that exceed plant uptake can result in surplus nitrate migrating to and being transported in groundwater. Fertilizers typically contain other chemicals that could migrate to groundwater, including potassium, sulfate and phosphorus, but their impact on water quality is generally not at the same magnitude as the impact from nitrate.

Not all pesticides are mobile in groundwater, and not all pesticides are stable or persistent in the environment. Consequently, the potential for pesticides to migrate to groundwater, degrade or transform into other chemical compounds, or persist long enough to contaminate groundwater, varies between individual pesticides and classes of pesticides.

Fertilizer and pesticide use is regulated through State law (RCWs 15.54 and 17.21) and City Code (e.g., 14.04, 14.05 and 14.07). To date, there has been no evidence that fertilizer and/or pesticide applications have impacted water quality at the Centennial Well (Section 2.2). The potential risk of fertilizer and pesticide use by homeowners within WHPAs may be addressed through landowner communication and public education efforts (Section 6.3).

4.3.12 Cemeteries

The risk of groundwater contamination from cemeteries has not been widely studied in the United States but some research has shown increased levels of nutrients, bacteria and metals in groundwater that is associated with leachate from cemeteries (Brennan et al. 2018; Zychowski et al. 2015). The most significant impacts have been measured in wet, tropical climates or in areas where the water table is within 10 feet or less of ground surface. Neither condition is applicable to North Bend. There is a small cemetery, occupying approximately 2 acres, located on North Bend Way approximately 2,000 feet east (up-gradient) of the Centennial Well. Groundwater quality in the Centennial Well has been excellent to date (Section 2.2) and the potential for impact from the cemetery appears to be low. However, the cemetery should be evaluated as a potential source if increased concentrations of nutrients, metals, bacteria, or other applicable contaminants are measured at the Centennial Well in the future.

4.4 Summary of Risk Assessment

Both of the City's current water supply sources, the Centennial Well and Mount Si Springs, have high susceptibility ratings by DOH. The Centennial Well is at a higher risk, with respect to wellhead protection, because the Centennial Well's WHPAs encompass more developed areas (commercial and residential) than Mount Si Springs. Additionally, the Centennial Well is completed in a highly transmissive, unconfined aquifer with a shallow water table. High-permeability material at ground surface and in the shallow-subsurface can result in rapid infiltration and is a potential conduit for contaminants to groundwater.

There are existing, known contaminant sources within the Centennial Well WHPAs. Based on the qualitative rating system described in Section 4.2, the sources are inferred to represent a low to moderate hazard to the Centennial Well, although detailed, site-specific evaluations were not completed as part of this study. In some instances, the actual impacts to groundwater associated with these (or other) sites are unknown. The septic drain fields at the La Forest Drive development (Section 4.3.4) are within the Centennial Well's 1-Year WHPA and could represent a moderate to high risk to the Centennial Well. There are also potential risks associated with untreated stormwater infiltration to groundwater. The risks associated with stormwater are being mitigated through the City's stormwater management program, which complies with King County's guidelines (Section 4.3.8).

The WHPA for Mount Si Springs is located in a mostly undeveloped area that is protected from future development. As a result, the risks associated with wellhead protection at Mount Si Springs are low.

The City's future groundwater sources (NB-1 and NB-2) appear to have higher risks than the Centennial Well (or Mount Si Springs) because both sources are located closer to the more developed portions of the City and closer to known contaminant sources that are inferred to have moderate to high hazard ratings (Section 4.2).

5.0 RESPONSE PLANS

The City published a Comprehensive Emergency Response Plan (Plan) in December 2015. The Plan was submitted to the state and conforms to the State of Washington Emergency Plan and the National Incident Management System (City of North Bend 2015). The Plan provides the framework for coordination and full mobilization of internal and external resources and communication protocols. Portions of the plan are applicable to wellhead protection are summarized below.

5.1 Hazardous Materials and Spill Response

Hazardous materials response planning, or spill response planning, is detailed in Emergency Support Function (ESF) #10 (City of North Bend 2015). This ESF details the appropriate responses and recovery actions to prepare for, prevent, minimize, or mitigate a threat to public health, welfare, and the environment caused by an actual or potential release of oil or other hazardous substances, pollutants, or contaminants. Eastside Fire and Rescue (ESF&R) is listed as the lead agency for the coordination of activities within the City's jurisdiction and for its facilities. Public Works is listed as a support agency and will assume command after the incident is stabilized and ESF&R is ready to transfer Command. Public Works will provide a critical role for evaluating the potential impacts to the City's water supply, including:

- Identifying if the release of hazardous material has occurred in WHPAs, and/or proximity to enter sewers, drains, and waterways.
- Assessing the potential impact of the release and risk to the City's water supply.

The WHPP can provide assistance for determining the types of spill response measures that may be necessary for the protection of drinking water sources. The City should develop specific response procedures for WHPAs to supplement the ESF with specific response procedures (Section 6.3).

5.2 Flooding

The City's emergency response to flooding and other natural disasters is detailed in ESF #3: Public Works and Engineering (City of North Bend 2015). This ESF details the coordination and organization of capabilities and resources to support the City's response to natural and human-made disasters. Public Works is the lead agency for this ESF. Potential impacts to wellheads and WHPAs due to flooding should be evaluated by Public Works on a case-by-case basis because the flood risks to the City's current water source areas (Centennial Wells and Mount Si Springs) is relatively low.

5.3 Fire

The City's emergency response to fire is detailed in ESF #4: Fire Services (City of North Bend 2015). This ESF is focused on emergency response to fire but it does recognize the importance, and potential environmental impacts related to hazardous substances. The City should be cognizant of the potential impacts of fire on groundwater quality in WHPAs, through the mobilization of contaminants and the potential impacts of some fire-fighting foams on water quality.

5.4 Contingency Planning

Contingency planning for water supply is part of the City's Water System Plan (Gray & Osborne 2020).

Contingency planning is an important component of a wellhead protection program. If one or both sources must be taken offline due to contamination, a contingency plan would provide immediate mitigation. A properly prepared and updated contingency plan helps ensure the water system, and local officials, are prepared to respond to emergency situations. Contingency planning also includes provision of alternative sources of drinking water. The following steps are necessary for the development of an effective contingency plan:

- 1) Identify maximum capacities of the existing system as to source, distribution system, and water rights restrictions. Assume loss of source and re-evaluate.
- 2) Identify existing or potential interties with other water systems.

The City's two sources provide redundancy. Both the City's spring and well source have sufficient instantaneous physical and water right capacity to supply the entire system during a temporary outage of the other source. The City currently also has an emergency intertie agreement with the Sallal Water Association to provide water in the event of an emergency (Gray & Osborne 2020).

6.0 WELLHEAD PROTECTION MEASURES

In Washington, land-use planning occurs at the local government level, so most of the responsibility for implementing wellhead protection lies with the City. Public water systems and the communities dependent on their water supplies have a strong interest in protecting the drinking water resource. This may be accomplished by strong educational programs, use of best management practices and other non-regulatory approaches.

In some settings, it may be necessary to adopt zoning ordinances or codes that limit activities around the water supply, set design or operating standards for facilities in the WHPA, or other regulatory approaches. Local officials with land-use authorities will select and implement the necessary steps to protect the community's water supply. The DOH WHPP guidance document provides general guidelines for WHPAs, as follows:

- **Sanitary Control Area:** The Sanitary Control Area (SCA) is defined as a 100-foot radius from the well (or 200-foot radius from spring source) and is the protective area required by WAC 246-290-135. Public water systems should tightly control this area to minimize any direct contamination at the wellhead. It should be managed to reduce the possibility of surface flows reaching the wellhead and traveling down the casing. All public water systems are encouraged to have a well house or a fenced area around each wellhead. This helps protect individual wells from any direct introduction of contaminants.
- **Zone 1** serves as a buffer and identifies the area needing a quick response time. Chemicals capable of contaminating groundwater must not be stored or used in Zone 1. A serious chemical release in Zone 1 may provide very limited time for a water system or community to identify the spill, implement emergency actions, and prevent the contamination from reaching the distribution system. Most management plans for Zone 1 include strong elements for the identification of potential contaminant sources and risk management.
- **Zone 2** should be actively managed to eliminate or reduce chemical contaminants. A release in Zone 2 presents a less acute crisis than a release in Zone 1. All potential contaminant sources must be identified and controlled, with an emphasis on pollution prevention and risk reduction management. Many state and local agencies use the 1-and 5-year zones to prioritize their technical assistance or outreach programs and target their inspections and enforcement actions.
- **In Zone 3**, high-risk operations and facilities must be identified, and steps must be taken to reduce contaminant loading. A primary purpose of Zone 3 is to encourage decision makers and planners to recognize the long-term source of the drinking water supplying community water systems. This allows the community to plan and site future high risk and medium risk contamination sources outside WHPAs. Zone 3 is also an educational tool for industry, the public, and others to understand the source of their drinking water and how their actions may affect drinking water quality.
- **Buffer Zone:** A buffer zone may be used to provide information to planners on activities or facilities outside Zone 3 that could release contaminants into the WHPAs. Analysis may show the need for contingency plans to respond to uncontrolled surface discharges that may travel overland to enter a stream located in or adjacent to the WHPA. It may also identify other non-contiguous critical aquifer recharge areas requiring protection.

6.1 Ordinances and Land-Use Zoning

The City manages groundwater quality and quantity through the designation of Critical Aquifer Recharge Areas (CARAs) under City Code 14.07. The code defines CARAs as “areas with a critical recharging effect on aquifers used for potable water.” CARAs are areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water, as defined by WAC 365-190-030(3).”

Two categories of CARAs are defined in the code, as follows:

- Category I critical aquifer recharge areas include those areas designated as highly susceptible to groundwater contamination and that are located within a sole source aquifer or WHPA.
- Category II critical aquifer recharge areas include those mapped areas designated that:
 - Have a medium susceptibility to groundwater contamination and are located in a sole source aquifer or WHPA.
 - Are highly susceptible to groundwater contamination and are not located in a sole source aquifer or WHPA.

The following new uses or activities are not allowed in Category I and/or Category II critical aquifer recharge areas, as specified below:

- Hazardous liquid transmission pipelines (Category 1 only).
- Sand, gravel, and hard rock mining on land that is not zoned for mining (Category 1 only).
- Mining of any type below the groundwater table (Category 1 or 2).
- Processing, storage, and disposal of radioactive wastes (Category 1 or 2).
- Hydrocarbon extraction (unless part of an approved decommissioning plan) (Category 1 or 2).
- Commercial wood treatment facilities on permeable surfaces (Category 1 or 2).
- Wrecking yards (Category 1 or 2).
- Landfills for hazardous waste, municipal solid waste, or special waste, except Class A biosolids when applied pursuant to Ecology standards (Category 1 or 2).

The code also stipulates performance standards for hazardous substance storage, agriculture, sewage, golf courses, and commercial vehicle repair and servicing. Applicable state and federal regulations can be enforced as necessary to protect critical aquifer recharge areas.

Portions of the WHPAs that are located in unincorporated King County may be designated as CARAs by King County under King County Title Code 21A.24.312.

6.2 Recommended Groundwater Monitoring

The City currently monitors groundwater quality directly at the Centennial Well and Mount Si Springs. The water quality results have consistently shown that the City groundwater is of excellent quality. However, continued development in the City and potential impacts from contaminant sources may necessitate a more robust groundwater monitoring program, to include monitoring groundwater in monitoring wells at various locations within

the WHPAs. The primary focus should be Centennial Well WHPA because up-gradient monitoring of Mount Si Springs is not feasible and NB-1 and NB-2 are not currently in use.

The highest priority is to begin monitoring groundwater quality down-gradient of the septic drain fields at the La Forest Drive development (Section 4.3.4). The drain fields are within the Centennial Well's 1-Year WHPA and could represent a moderate to high risk to the Centennial Well. Monitoring is needed to identify if nitrates (or other contaminants) from the drain fields are infiltrating to groundwater and being transported towards the Centennial Well. It is recommended that the City install a new monitoring well between the drain fields and the Centennial Well for this purpose. The well could be located along the Cedar Falls Way right-of-way but the exact location and design of the monitoring well (i.e., depth and screen interval) should be determined based on the layout of the drain fields and site access constraints.

Additional monitoring in other portions of the Centennial Well's WHPA may also be warranted. The City could utilize existing City-owned wells for wellhead protection water quality monitoring, including MW-6 (on Public Works property) and the test well on Tanner Road (TW-5). The City could potentially also utilize public/residential wells that were part of an earlier EKCRWA monitoring network but additional verification is needed to determine if these sites are accessible. Additional monitoring wells may be needed. The following is recommended for the monitoring program:

- Conduct the sampling semi-annually (twice per year) during the summer and winter months to coincide with seasonal high and low water conditions.
- Utilize field parameter and field test kit measurements to make screening level determinations and recommendations.
- After well locations and preliminary screening has been completed, develop a Sampling and Analysis Plan that details the well locations, analytical parameters, test methods, etc.
- Additionally, the City should collect a groundwater quality sample from the NB-1 and NB-2 wells in order to document current water quality conditions at these locations.

6.3 Other Recommendations

- The WHPAs presented in this report should be incorporated into the City's Water System Plan. To continue to protect the valuable groundwater resource, the City should adopt the newly defined WHPAs and designate them as critical aquifer recharge areas under City Code 14.07. Areas within the 5-Year WHPA should be considered a Category 1 CARA and areas within the 10-year WHPA (but outside of the 5-Year WHPA) should be considered a Category 2 CARA. The City should enact these designations for the Centennial Well but could defer on the designations for the NB-1 and NB-2 WHPAs, depending on the planned future use of those withdrawal points. The entire WHPA for Mount Si Springs should be designated as a Category 1 CARA.
- Update the contaminant source inventory every two years, as stipulated in WAC 246-290-135.
- With the use of on-site sewage disposal systems within the WHPAs, the City should remain aware of nitrate levels and trends of increased nitrate levels over a period of time. Increasing nitrate levels could be an indication of source contamination. The City should communicate with landowners using septic systems within the WHPAs to document drain field location and provide information and education to landowners.

- The City should engage in discussions with operators and owners of potential point and nonpoint source contaminants within the WHPAs to establish and apply best management practices to reduce the risk of impacting the source waters.
- The City should inspect the maintenance shop area and applicable storage areas at the Public Works complex to ensure that all chemicals and hazardous materials are stored properly, and secondary containment devices are utilized. Similarly, the City should coordinate with the local businesses adjacent to the Public Works complex (Napa Auto Parts and adjacent auto repair shop on North Bend Way), as well as, the Fire Department and the Forest Service property on North Bend Way to ensure that similar protection measures are in place. The City should consider amending the CARA ordinance to require annual review/inspections at select locations within the WHPAs.
- All commercial businesses, hazardous waste generators, and septic system owners should be notified of their presence within the City's WHPA upon completion of this report and as the contaminant source inventories are updated. A copy of this letter and a list of recipients should be provided to comply with WA DOH requirements. An example notification letter is included in Appendix D.
- The City should periodically conduct trend assessments of groundwater quality from the Centennial Well and Mount Si Springs (and other available sources with WHPAs) to identify any long-term changes in groundwater quality. Depending on results, further action may be warranted, including the development of a more extensive groundwater network with the WHPAs.
- The City should periodically check the flush mount well monument of monitoring well (MW-6) located on the Public Works property for leakage to ensure that stormwater is not infiltrating into the well. A similar review could be performed on other flush mount monitoring wells identified within the Centennial Well WHPA.
- Ensure that owners of the Registered UIC wells within the WHPAs are complying with the new UIC well regulations enacted in 2019 (Section 4.3.8), including verification that UIC maintenance and monitoring programs are in place. The City should consider amending the CARA ordinance to require UIC monitoring and maintenance documentation.
- Regularly evaluate effectiveness of stormwater management within the Centennial Well WHPAs to ensure best-management practices are followed for stormwater.
- The City should develop a list of procedures to follow in order to respond to potential transportation spills along Interstate 90 that occur within the WHPAs. These procedures would be used to supplement the City's Comprehensive Emergency Response Plan.

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Tables

August 2020

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Table 3-A: Contaminant Source Inventory for Centennial Well (NB-3)

Golder Figure ID	EDR Map ID	Facility Name	Address	Database(s)	Database Codes	WPHA Designation	Land Use Designation	Hazard Rating	Note
53	AS179	NORTH BEND AUTO PARTS INC	1120 E NORTH BEND WAY	RCRA-VSQQ	F, L	6-Month	NB (Commercial)	Moderate	
54	AS183	FRANK PADAVICH (Auto Repair)	1130 E NORTH BEND WAY	CSCSL, UST, LUST, VCP	A, B, H, I, L	6-Month	NB (Commercial)	Moderate	UST has been removed, voluntary cleanup program initiated, rating reduced to moderate.
55	AZ218	NORTH BEND RANGER STN	42404 SE NORTH BEND WAY	UST	H, L	6-Month	POSPF (Open Space)	Low	The tank was removed as of 1996 and no reports of contamination were documented. Rating reduced to low.
18	T76, T74, T75	DNR - NORTH BEND	223 E. 2ND ST.	ICR, UST, LUST	B, E, H, L	5-Year	DC (Commercial)	Low	Benzene, petroleum contamination, remediated to below action levels. Rating reduced to low.
19	S71, S72	RESIDENCE	349 E. 3RD ST.	ICR, VCP	E, I, L	5-Year	DC (Commercial)	Low	Unspecified petroleum contamination, remediated to NFA. Rating reduced to low.
20	Y107, Y99	UNOCAL SERVICE STN 2237	330 & 354 E NORTH BEND WAY	CSCSL, UST, LUST	A, B, H, L	5-Year	DC (Commercial)	Moderate	LUST removed. Groundwater concentrations confirmed above cleanup levels.
21	AG123, AG122	NEIGHBORING GAS STATION	468 E NORTH BEND WY	SPILLS	J	5-Year	DC (Commercial)	Moderate	
22	AH124	QFC SHOPPING CENTER PLAZA	470 E NORTH BEND WAY	UST	H, L	5-Year	DC (Commercial)	Low	
23	AH141, AH139, AH138, AH132, AH137, AJ142, AH135	NORTH BEND 76 (also NORTH BEND GASOLINE, INC)	520 E NORTH BEND WAY	CSCSL, UST, ERNS, VCP, SPILLS, UIC	A, B, C, H, I, J, K, L	5-Year	DC (Commercial)	Moderate	Soil and groundwater contamination confirmed above cleanup levels
24	150	APARTMENT MANAGER	MAIN AVE S & STOW AVE S	SPILLS	J	5-Year	Not Designated	Low	Reported debris and garbage spill. Rating reduced to low.
25	AE126	NORTH BEND	215 E PARK	UST	H, L	5-Year	HDR (Residential)	Low	
26	149	Not Listed	424 HEALY AVE S	SPILLS	J	5-Year	HDR (Residential)	Moderate	Chemical spill. No additional information provided.
27	X95	NORTH BEND TEXACO	225 E NORTH BEND WAY	CSCSL, LUST, HSL, UST	A, B, D, E, H, L	5-Year	DC (Commercial)	Moderate	UST removed. Soil and groundwater contamination above cleanup levels confirmed. Cleanup started. Rank 1 in CSCSL.
28	AB108, AB109	PSE	312 E. PARK ST.	ERNS	C, J	5-Year	HDR (Residential)	Moderate	
29	80, AD119, AD113	RIVER GLEN HOA	PICKETT AVE	UIC	K	5-Year	LDR (Residential)	Low	Infiltration trench with perforated pipe designed to infiltrate municipal stormwater
30	AI129	CITY OF NORTH BEND NE 3RD ST	NE 3RD ST	UIC	K, L	5-Year	Not Designated	Low	
31	143	Not Listed	209 THRASHER AVE	SPILLS	J	5-Year	LDR (Residential)	Moderate	
32	BB222	ROWLEY ENTERPRISE/ MT. SI	43321 MT. SI ROAD SE	ICR	E, L	5-Year	Not Designated	Low	NFA issued. Changed to Low.
33	BF244	MT SI VISTA (I 1) (D90697)	13315 433RD CT SE	UIC	K, L	5-Year	UR (Residential)	Low	Dry well.
34	266	MT SI VISTA (I 3) (D90699)	13532 433RD PLACE SE	UIC	K, L	5-Year	UR (Residential)	Low	
35	BE242	Not Listed	CEDAR FALLS WAY	SPILLS	J	5-Year	CR (Rural)	Low	0.5 gallon release of oil water mixture. Rating reduced to low.
36	260	MT SI VISTA (I 2) (D90698)	13500 434RD AVE SE	UIC	K	5-Year	UR (Residential)	Low	
37	BK267	ALLIED BLDG SUPPLIES	43516 SE 136TH ST	SPILLS	J	5-Year	UR (Residential)	Moderate	Petroleum/Hydraulic oil spill. Unknown quantity.
38	BH253, BH254, BH255, BH256	CHINOOK LUMBER	436TH AVE SE @ CEDAR FALLS WAY	UIC	K, L	5-Year	EP-1 (Industrial)	Low	Infiltration trench with perforated pipe to infiltrate non-municipal stormwater
39	BK269, BK271, BK273, BK274	RIVER RUN	43600 SE 136TH STREET	UIC	K	5-Year	EP-1 (Industrial)	Low	Infiltration trench with perforated pipe to infiltrate non-municipal stormwater
40	289	Not Listed	13739 436TH AVE SE	SPILLS	J	5-Year	UR (Residential)	Moderate	
41	BL279	PUGET SOUND POWER & LIGHT CO.	44429 SE TANNER ROAD	ICR, UST, LUST	E, B, H, L	5-Year	EP-1 (Industrial)	Low	Remediated soil contamination. No reported groundwater contamination. Rating reduced to low.
42	303	KING COUNTY SHORT PLAT S0195076/S048	44139 SE 136TH ST	UIC	K	5-Year	UR (Residential)	Low	
43	324	CEDAR VILLAGE DIVISION 2 (D90643)	14219 443RED PLACE SE	UIC	K	5-Year	UR (Residential)	Low	
44	320	PSE	44504 SE 142ND ST	SPILLS	J, L	5-Year	Not Designated	Moderate	5 gallon oil spill
45	BT304	M.C. ANDERSON TRUCKING	44700 NORTH BEND WAY	ICR	E	5-Year	EP-1 (Industrial)	Moderate	
46	BQ293	WA DOT NORTH BEND	45000 SE 140TH ST	VCP, SPILLS	I, J, L	5-Year	EP-1 (Industrial)	Low	Also listed as I-90 Westbound MP 34 Just east of North Bend. No further action issued. Rating reduced to Low.
47	315	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY	LUST, UST	B, H, L	5-Year	EP-1 (Industrial)	Low	Remediated soil contamination. No reported groundwater contamination. Rating reduced to low.
48	BV318	ESTATE OF DANIEL H CAHILL	45120 SE NORTH BEND WAY	CSCSL, HSL	A, D, L	5-Year	EP-1 (Industrial)	Moderate	Hazardous sites list, awaiting cleanup.
49	299	NW CASCADES INC	13805 457TH AVE SE	SPILLS	J	5-Year	LDR (Residential)	Moderate	Unknown quantity petroleum spill.
50	310	Not Listed	457TH AVE S	SPILLS	J	5-Year	LDR (Residential)	Moderate	3 gallon hydraulic oil spill
51	CA340	TANNER ELECTRIC COOPERATIVE	45710 SE NORTH BEND WAY PO BOX 1426	UST	H, L	5-Year	EP-2 (Industrial)	Low	
52	BY336, BY337	RESIDENT (also listed as Felon)	45810 SE NORTH BEND WAY	SPILLS	J, L	5-Year	EP-2 (Industrial)	Moderate	Chemical spill. Unreported quantity.
No Sites in 10-Year WPHA									

August 2020

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Table 3-B: Contaminant Source Inventory for NB-1

Golder Figure ID	EDR Map ID	Facility Name	Address	Database(s)	Database Codes	WPHA Designation	Land Use Designation	Hazard Rating	Note
29	80, AD119, AD113	RIVER GLEN HOA	PICKETT AVE,	UIC	K	6-Month	LDR (Residential)	Moderate	Infiltration trench with perforated pipe designed to infiltrate municipal stormwater
31	143	Not Listed	209 THRASHER AVE	SPILLS	J	6-Month	LDR (Residential)	High	
55	AZ218	NORTH BEND RANGER STN	42404 SE NORTH BEND WAY	UST	H, L	6-Month	POSPF (Open Space)	Low	The tank was removed as of 1996 and no reports of contamination were documented. Rating reduced to low.
19	S71, S72	RESIDENCE	349 E. 3RD ST.	ICR, VCP	E, I, L	1-Year	DC (Commercial)	Low	Unspecified petroleum contamination, remediated to NFA. Rating reduced to low.
20	Y107, Y107, Y99	UNOCAL SERVICE STN 2237	330 & 354 E NORTH BEND WAY	CSCSL, UST, LUST	A, B, H, L	1-Year	DC (Commercial)	High	LUST removed. Groundwater concentrations confirmed above cleanup levels.
21	AG123, AG122	NEIGHBORING GAS STATION	468 E NORTH BEND WY	SPILLS	J	1-Year	DC (Commercial)	High	
22	AH124	QFC SHOPPING CENTER PLAZA	470 E NORTH BEND WAY	UST	H, L	1-Year	DC (Commercial)	Moderate	
23	AH141, AH139, AH138, AH132, AH137, AJ142, AH135	NORTH BEND 76 (also NORTH BEND GASOLINE, INC)	520 E NORTH BEND WAY	CSCSL, UST, ERNS, VCP, SPILLS, UIC	A, B, C, H, I, J, K, L	1-Year	DC (Commercial)	High	Soil and groundwater contamination confirmed above cleanup levels
30	AI129	CITY OF NORTH BEND NE 3RD ST	NE 3RD ST	UIC	K, L	1-Year	Not Designated	Low	
53	AS179	NORTH BEND AUTO PARTS INC	1120 E NORTH BEND WAY	RCRA-VSQG	F, L	1-Year	NB (Commercial)	Moderate	
54	AS183	FRANK PADAVICH (Auto Repair)	1130 E NORTH BEND WAY	CSCSL, UST, LUST, VCP	A, B, H, I, L	1-Year	NB (Commercial)	Moderate	UST has been removed, voluntary cleanup program initiated. Rating changed to moderate.
1	114, C13, 14, C11, 16	North Bend WWTP	400 Bendigo Blvd also listed as 400 North Bend Blvd)	LUST, SWF/LF, UST, RGA LF, SPILLS	B, G, H, J, L	5-Year	POSPF (Open Space)	Low	Multiple listings, NFA given for LUST.
2	16	Not Listed	106 E 6TH ST	SPILLS	J	5-Year	LDR (Residential)	Moderate	Unknown contaminant, reported in 2010.
3	I38, 41	BRYANS ONE STOP , CHEVRON - NORTH BEND	302 W North Bend Way	CSCSL, ICR, LUST, UST, HSL	A, B, D, E, H, L	5-Year	DC (Commercial)	Moderate	Benzene, petroleum, soil and groundwater above cleanup levels
4	Q64, Q65	FLOYDS COMPLETE SERVICES INC	106 E NORTH BEND WAY	UST, FINDS	H, L	5-Year	DC (Commercial)	Low	
5	P61	CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU	106 MAIN AVE N	UST, RCRA NonGen / NLR	H, L	5-Year	DC (Commercial)	Low	
6	M50, M49, M63	PACIFIC TELECOM, TELEPHONE UTILITIES OF WASHINGTON NORTH BEND, CENTURYTEL NORTH BEND	131 2ND ST. E.	ICR, UST, LUST	B, E, H, L	5-Year	DC (Commercial)	Moderate	No further action issued
7	E24, E23, E28	NORTH BEND COMMUNITY CENTER	126 E 4TH	CSCSL, VCP, ICR	A, E, I, L	5-Year	POSPF (Open Space)	Moderate	Petroleum contamination, cleanup in progress.
8	V82, V83, V81	VIRGINIA MASON CLINIC	248 MAIN AVE. S.	ICR	B, E, H, I, L	5-Year	DC (Commercial)	Moderate	No further action issued
9	U86	NORTH BEND BAR & GRILL	Not listed	SPILLS	J	5-Year	DC (Commercial)	Moderate	Vegetable oil spill
10	98	METRO TRANSIT	MAIN AVE. SO. & EAST PARK ST.	SPILLS	J	5-Year	DC (Commercial)	Moderate	2 gallon hydraulic oil spill
18	T76, T74, T75	DNR - NORTH BEND	223 E. 2ND ST.	ICR, UST, LUST	B, E, H, L	5-Year	DC (Commercial)	Low	Benzene, petroleum contamination, remediated to below action levels. Rating reduced to low.
24	150	APARTMENT MANAGER	MAIN AVE S & STOW AVE S,	SPILLS	J	5-Year	Not Designated	Moderate	Reported debris and garbage spill. Rating reduced to low.
25	AE126	NORTH BEND	215 E PARK	UST	H, L	5-Year	HDR (Residential)	Low	
26	149	Not Listed	424 HEALY AVE S	SPILLS	J	5-Year	HDR (Residential)	Moderate	Chemical spill. No additional information provided.
27	X95	NORTH BEND TEXACO	225 E NORTH BEND WAY	CSCSL, LUST, HSL, UST	A, B, D, E, H, L	5-Year	DC (Commercial)	Moderate	UST removed. Soil and groundwater contamination above cleanup levels confirmed. Cleanup started. Rank 1 in CSCSL.
28	AB108, AB109	PSE	312 E. PARK ST.	ERNS	C, J	5-Year	HDR (Residential)	Moderate	
33	BF244	MT SI VISTA (I 1) (D90697)	13315 433RD CT SE	UIC	K, L	5-Year	UR (Residential)	Low	Dry well.
34	266	MT SI VISTA (I 3) (D90699)	13532 433RD PLACE SE	UIC	K, L	5-Year	UR (Residential)	Low	
35	BE242	Not Listed	CEDAR FALLS WAY	SPILLS	J	5-Year	CR (Rural)	Low	0.5 gallon release of oil water mixture. Rating reduced to low.
36	260	MT SI VISTA (I 2) (D90698)	13500 434RD AVE SE	UIC	K	5-Year	UR (Residential)	Low	
37	BK267	ALLIED BLDG SUPPLIES	43516 SE 136TH ST	SPILLS	J	5-Year	UR (Residential)	Moderate	Petroleum/Hydraulic oil spill. Unknown quantity.
38	BH253, BH254, BH255, BH256	CHINOOK LUMBER	436TH AVE SE @ CEDAR FALLS WAY	UIC	K, L	5-Year	EP-1 (Industrial)	Low	Infiltration trench with perforated pipe to infiltrate non-municipal stormwater
39	BK269, BK271, BK273, BK274	RIVER RUN	43600 SE 136TH STREET	UIC	K	5-Year	EP-1 (Industrial)	Low	Infiltration trench with perforated pipe to infiltrate non-municipal stormwater
40	289	Not Listed	13739 436TH AVE SE	SPILLS	J	5-Year	UR (Residential)	Moderate	
41	BL279	PUGET SOUND POWER & LIGHT CO.	44429 SE TANNER ROAD	ICR, UST, LUST	E, B, H, L	5-Year	EP-1 (Industrial)	Low	Remediated soil contamination. No reported groundwater contamination. Rating reduced to low.
42	303	KING COUNTY SHORT PLAT S0195076/S048	44139 SE 136TH ST	UIC	K	5-Year	UR (Residential)	Low	
43	324	CEDAR VILLAGE DIVISION 2 (D90643)	14219 443RED PLACE SE	UIC	K	5-Year	UR (Residential)	Low	
44	320	PSE	44504 SE 142ND ST	SPILLS	J, L	5-Year	Not Designated	Moderate	5 gallon oil spill

Table 3-B: Contaminant Source Inventory for NB-1

Golder Figure ID	EDR Map ID	Facility Name	Address	Database(s)	Database Codes	WPHA Designation	Land Use Designation	Hazard Rating	Note
45	BT304	M.C. ANDERSON TRUCKING	44700 NORTH BEND WAY	ICR	E	5-Year	EP-1 (Industrial)	Moderate	
46	BQ293	WA DOT NORTH BEND	45000 SE 140TH ST	VCP, SPILLS	I, J, L	5-Year	EP-1 (Industrial)	Low	Also listed as I-90 Westbound MP 34 Just east of North Bend. No further action issued. Rating reduced to Low.
47	315	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY	LUST, UST	B, H, L	5-Year	EP-1 (Industrial)	Low	Remediated soil contamination. No reported groundwater contamination. Rating reduced to low.
48	BV318	ESTATE OF DANIEL H CAHILL	45120 SE NORTH BEND WAY	CSCSL, HSL	A, D, L	5-Year	EP-1 (Industrial)	Moderate	Hazardous sites list, awaiting cleanup.
49	299	NW CASCADES INC	13805 457TH AVE SE	SPILLS	J	5-Year	LDR (Residential)	Moderate	Unknown quantity petroleum spill.
50	310	Not Listed	457TH AVE S	SPILLS	J	5-Year	LDR (Residential)	Moderate	3 gallon hydraulic oil spill
51	CA340	TANNER ELECTRIC COOPERATIVE	45710 SE NORTH BEND WAY PO BOX 1426	UST	H, L	5-Year	EP-2 (Industrial)	Low	
52	BY336, BY337	RESIDENT (also listed as Felon)	45810 SE NORTH BEND WAY	SPILLS	J, L	5-Year	EP-2 (Industrial)	Moderate	Chemical spill. Unreported quantity.
No Sites in 10-Year WHPA									

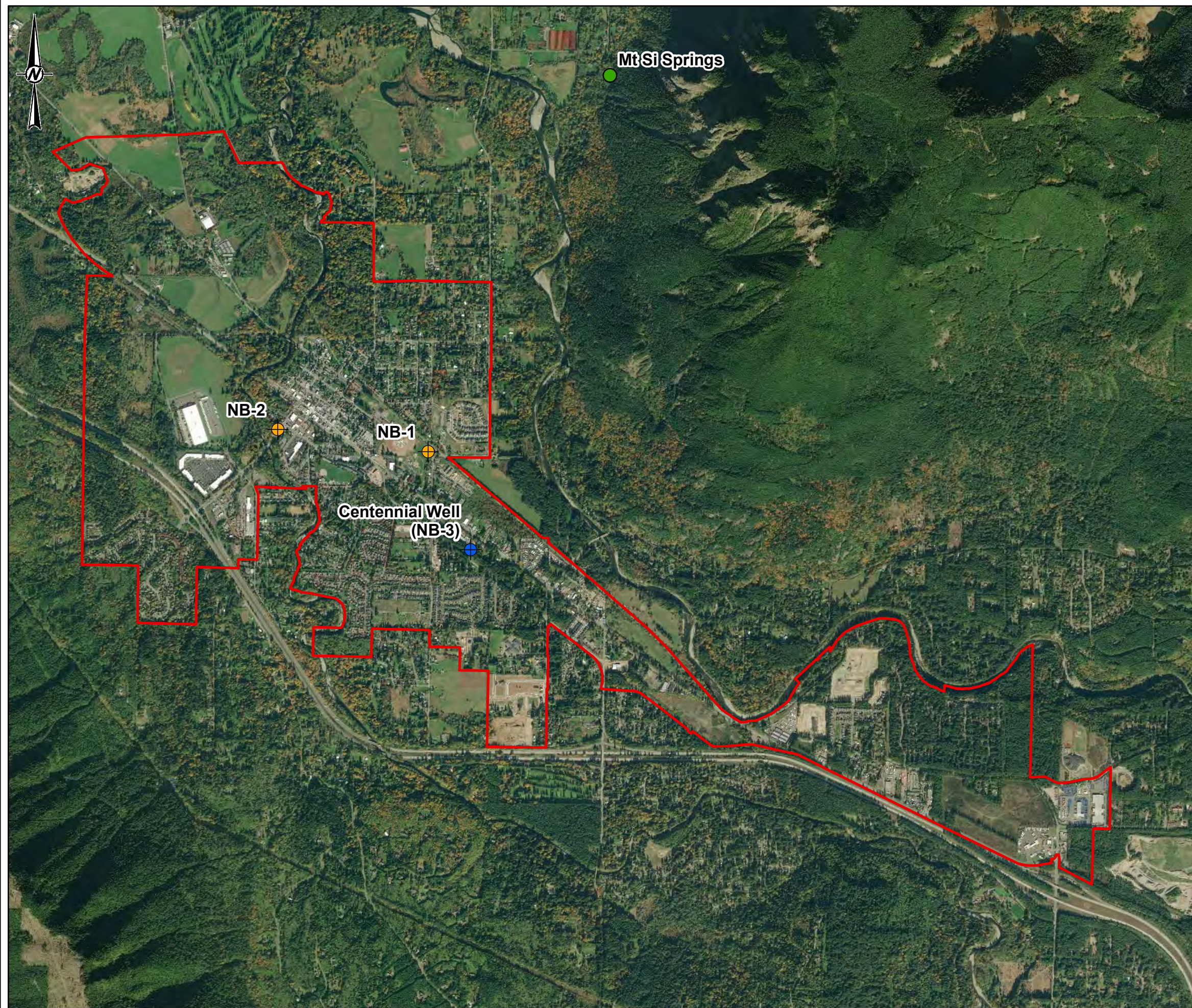
August 2020

130021817





Table 3-C: Contaminant Source Inventory for NB-2

Golder Figure ID	EDR Map ID	Facility Name	Address	Database(s)	Database Codes	WPHA Designation	Land Use Designation	Hazard Rating	Note
3	I38, 41	BRYANS ONE STOP , CHEVRON - NORTH BEND	302 W North Bend Way	CSCSL, ICR, LUST, UST, HSL	A, B, D, E, H, L	6-Month	DC (Commercial)	High	Benzene, petroleum, soil and groundwater above cleanup levels
4	Q64, Q65	FLOYDS COMPLETE SERVICES INC	106 E NORTH BEND WAY	UST, FINDS	H, L	6-Month	DC (Commercial)	Moderate	
5	P61	CHAPLINS NORTH BEND CHEVROLET OLDS SUBARU	106 MAIN AVE N	UST, RCRA NonGen / NLR	H, L	6-Month	DC (Commercial)	Moderate	
6	M50, M49, M63	PACIFIC TELECOM, TELEPHONE UTILITIES OF WASHINGTON NORTH BEND, CENTURYTEL NORTH BEND	131 2ND ST. E.	ICR, UST, LUST	B, E, H, L	6-Month	DC (Commercial)	High	No further action issued
8	V82, V83, V81	VIRGINIA MASON CLINIC	248 MAIN AVE. S.	ICR	B, E, H, I, L	6-Month	DC (Commercial)	Low	No further action issued. Reduced to Low.
9	U86	NORTH BEND BAR & GRILL	Not listed	SPILLS	J	6-Month	DC (Commercial)	High	Vegetable oil spill
10	98	METRO TRANSIT	MAIN AVE. SO. & EAST PARK ST.	SPILLS	J	6-Month	DC (Commercial)	High	2 gallon hydraulic oil spill
24	150	APARTMENT MANAGER	MAIN AVE S & STOW AVE S,	SPILLS	J	6-Month	Not Designated	Low	Reported debris and garbage spill. Rating reduced to low.
25	AE126	NORTH BEND	215 E PARK	UST	H, L	6-Month	HDR (Residential)	Moderate	
26	149	Not Listed	424 HEALY AVE S	SPILLS	J	6-Month	HDR (Residential)	High	Chemical spill. No additional information provided.
27	X95	NORTH BEND TEXACO	225 E NORTH BEND WAY	CSCSL, LUST, HSL, UST	A, B, D, E, H, L	6-Month	DC (Commercial)	High	UST removed. Soil and groundwater contamination above cleanup levels confirmed. Cleanup started. Rank 1 in CSCSL.
28	AB108, AB109	PSE	312 E. PARK ST.	ERNS	C, J	6-Month	HDR (Residential)	High	
7	E24, E23, E28	NORTH BEND COMMUNITY CENTER	126 E 4TH	CSCSL, VCP, ICR	A, E, I, L	1-Year	POSPF (Open Space)	High	Petroleum contamination, cleanup in progress.
18	T76, T74, T75	DNR - NORTH BEND	223 E. 2ND ST.	ICR, UST, LUST	B, E, H, L	1-Year	DC (Commercial)	Low	Benzene, petroleum contamination, remediated to below action levels. Rating reduced to low.
20	Y107, Y107, Y99	UNOCAL SERVICE STN 2237	330 & 354 E NORTH BEND WAY	CSCSL, UST, LUST	A, B, H, L	1-Year	DC (Commercial)	High	LUST removed. Groundwater concentrations confirmed above cleanup levels.
57	91	Not Listed	Not Listed	SPILLS	J	1-Year	EP-1 (Industrial)	High	Oil Spill. No quantity reported.
1	114, C13, 14, C11, 16	North Bend WWTP	400 Bendigo Blvd also listed as 400 North Bend Blvd)	LUST, SWF/LF, UST, RGA LF, SPILLS	B, G, H, J, L	5-Year	POSPF (Open Space)	Low	Multiple listings, NFA given for LUST.
2	16	Not Listed	106 E 6TH ST	SPILLS	J	5-Year	LDR (Residential)	Moderate	Unknown contaminant, reported in 2010.
11	AN164	MT SI CHEVRON	745 SW MT SI BLVD	UST	H, L	5-Year	IC (Commercial)	Low	
12	AM161	MT SI SHELL	742 SW MT SI BLVD	UST	H, L	5-Year	IC (Commercial)	Low	
13	AU198, AU200, AU189	SAFeway FUEL 1528	721 SW MT SI BLVD	CSCSL, UST, LUST, SPILLS	A, B, H, J, L	5-Year	IC (Commercial)	Moderate	Benzene contamination. Groundwater concentrations confirmed above cleanup levels. Cleanup started.
14	AV196	SAFeway STORE 1528	460 SW MT SI BLVD	RCRA-VSQG	F, L	5-Year	IMU (Commercial)	Low	
15	CI372	NORTH BEND B530350/NBNDWA01	12805 412TH AVE SE	UST	H, L	5-Year	UR (Residential)	Low	
16	CF364, CF365	CASCADE AUTOVON COMPANY	12727 412TH AVE. SE	ICR, UST, LUST, VCP	E, B, H, I, L	5-Year	UR (Residential)	Moderate	NFA issued. Groundwater concentrations confirmed below cleanup levels.
19	S71, S72	RESIDENCE	349 E. 3RD ST.	ICR, VCP	E, I, L	5-Year	DC (Commercial)	Low	Unspecified petroleum contamination, remediated to NFA. Rating reduced to low.
21	AG123, AG122	NEIGHBORING GAS STATION	468 E NORTH BEND WY	SPILLS	J	5-Year	DC (Commercial)	Moderate	
22	AH124	QFC SHOPPING CENTER PLAZA	470 E NORTH BEND WAY	UST	H, L	5-Year	DC (Commercial)	Low	
23	AH141, AH139, AH138, AH132, AH137, AJ142, AH135	NORTH BEND 76 (also NORTH BEND GASOLINE, INC)	520 E NORTH BEND WAY	CSCSL, UST, ERNS, VCP, SPILLS, UIC	A, B, C, H, I, J, K, L	5-Year	DC (Commercial)	Moderate	Soil and groundwater contamination confirmed above cleanup levels
29	80, AD119, AD113	RIVER GLEN HOA	PICKETT AVE,	UIC	K	5-Year	LDR (Residential)	Low	Infiltration trench with perforated pipe designed to infiltrate municipal stormwater
31	143	Not Listed	209 THRASHER AVE	SPILLS	J	5-Year	LDR (Residential)	Moderate	
55	AZ218	NORTH BEND RANGER STN	42404 SE NORTH BEND WAY	UST	H, L	5-Year	POSPF (Open Space)	Low	The tank was removed as of 1996 and no reports of contamination were documented.
56	178	Not Listed	1525 ROCK CREEK RIDGE BLVD SW	SPILLS	J	5-Year	HDR (Residential)	Moderate	Petroleum oil spill, unknown quantity.
No Sites in 10-Year WHPA									

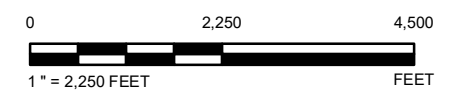
Figures



LEGEND

-  Potential Future Groundwater Sources
 Centennial Well
 Mt Si Springs
 North Bend City Limits

Attachment A



REFERENCE(S)

- REFERENCE(S)**
1. CITY OF NORTH BEND (CITY LIMITS)
 2. GOLDER (SPRINGS, WELLS)
 3. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET
 4. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

CITY OF NORTH BEND

PROJECT

PROJECT WELLHEAD PROTECTION PLAN

TITLE

WATER SOURCE LOCATIONS

CONSULTANT

YYYY-MM-DD 2020-04-17

DESIGNED	EP
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PREPARED	TL
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REVIEWED JP

APPROVED JP



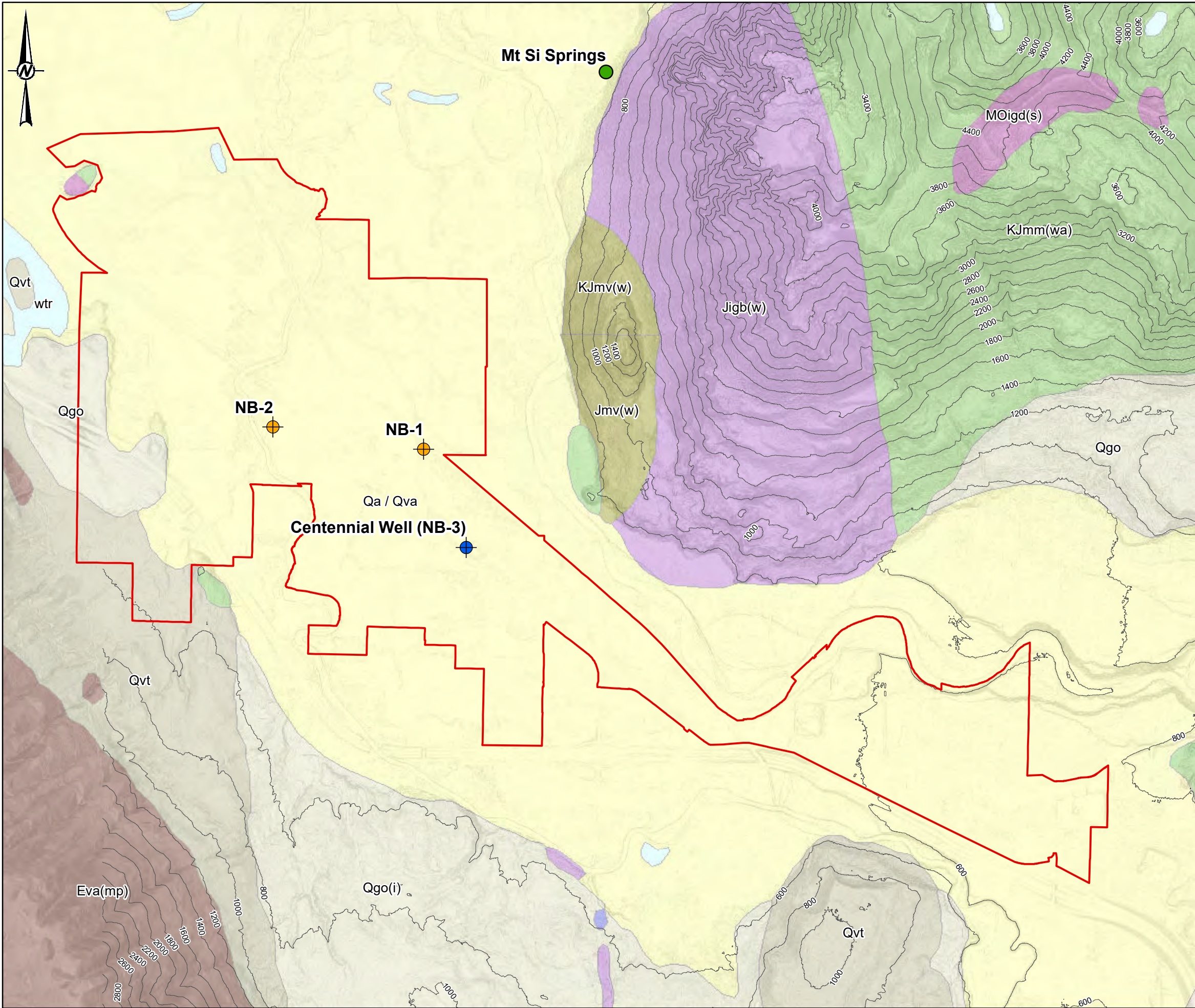
PROJECT NO.
130021817

PHASE
004

REV.
0

FIGURE 1

R:\TH: G:\CityOfNorthBend\CityOfNorthBend09_PROJECTS\130021817_1_Wells\asProtectionPlan\04a02_PRODUCTION\MAXDPI\FIGURES\Rev01\130021817_004_002_F2_Rev01_SurficialGeology.mxd PRINTED ON: 2020-04-17 AT: 8:54:30 AM



Attachment A

Potential Future Groundwater Sources

Centennial Well

Mt Si Springs

North Bend City Limits

Glacial/Alluvial Deposits

Qa/Qva (Alluvium and Advance Outwash)

Qgo (Glacial Drift)

Qvt (Glacial Till)

Tertiary Bedrock

Eva

MOigd

Mesozoic Bedrock

KJmm

KJmv

MOigd

Jigb

Water

Water

022504500

1" = 2,250 FEET

FEET

NOTE(S)

1. SURFICIAL GEOLOGY ILLUSTRATED AT 1:100,000 RESOLUTION.

REFERENCE(S)

1. CITY OF NORTH BEND (CITY LIMITS)

2. GOLDER (SPRINGS, WELLS)

3. KING COUNTY (LIDAR, CONTOURS, HILLSHADE)

4. WASHINGTON DEPARTMENT OF NATURAL RESOURCE (GEOLOGIC UNITS)

5. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

CLIENT

CITY OF NORTH BEND

PROJECT

WELLHEAD PROTECTION PLAN

TITLE

SURFICIAL GEOLOGY

CONSULTANT

YYYY-MM-DD

2020-04-17

DESIGNED

EP

PREPARED

TL

REVIEWED

JP

APPROVED

JP

PROJECT NO.

130021817

PHASE

004

REV.

0

FIGURE

2

1m

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

R:\TH\G\CityOfNorthBend\CityOfNorthBend\99_PROJECTS\130021817_1_WellheadProtectionPlan\004\02_PRODUCTION\MAXDIFIGURES\Rev01\130021817_004_003_F3_Rev01_NB3\WHPA.mxd PRINTED ON: 2020-04-17 AT: 12:01:34 PM



LEGEND

Centennial Well

6-Month Travel Time

1-Year Wellhead Protection Area

5-Year Wellhead Protection Area

10-Year Wellhead Protection Area

Attachment A

022504500

1" = 2,250 FEET

FEET

NOTE(S)

1. THE SANITARY CONTROL AREA (100 FOOT RADIUS AROUND THE WELL) IS APPROXIMATELY THE SAME SIZE AS THE SYMBOL USED TO IDENTIFY THE CENTENNIAL WELL ON THIS

REFERENCE(S)

1. GOLDER (SANITARY CONTROL AREA, 6-MONTH TRAVEL TIME, WELLHEAD PROTECTION ZONES, WELLS)

2. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

3. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

CITY OF NORTH BEND

PROJECT

WELLHEAD PROTECTION PLAN

TITLE

CENTENNIAL WELL (NB-3)

DELINEATED WELLHEAD PROTECTION AREA

CONSULTANT

YYYY-MM-DD

2020-04-17

DESIGNED

EP

PREPARED

TL

REVIEWED

JP

APPROVED

JP

G

GOLDER

PROJECT NO.

130021817

PHASE

004

REV.

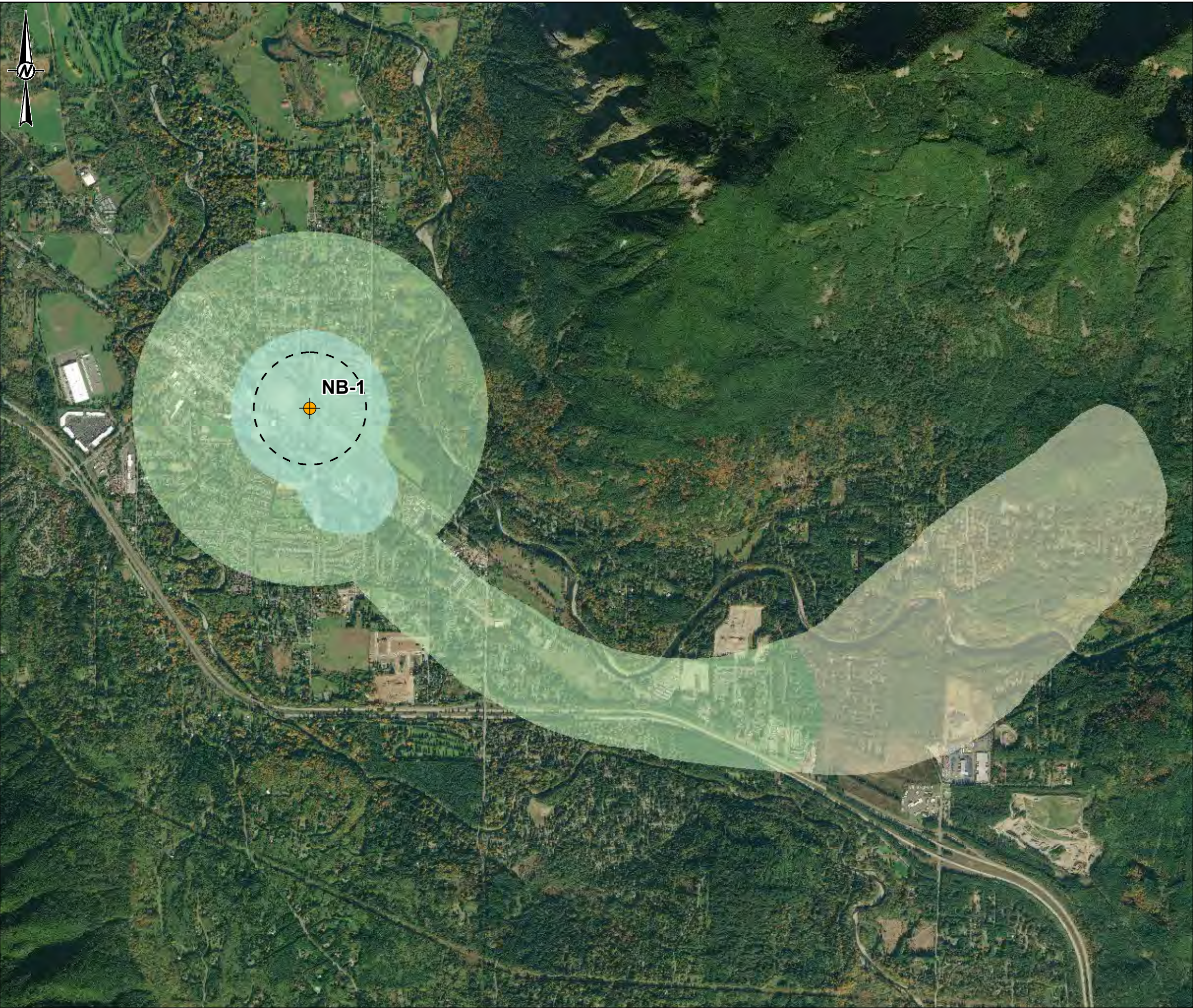
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FIGURE

3


IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B


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
Attachment A


LEGEND

 NB-1

 6-Month Travel Time

 1-Year Wellhead Protection Area

 5-Year Wellhead Protection Area

 10-Year Wellhead Protection Area

NOTE(S)

1. NB-1 IS A POTENTIAL FUTURE WITHDRAWAL POINT. FOR THIS ANALYSIS WE ASSUME THE WITHDRAWAL LOCATION IS WHERE THE CURRENT NB-1 WELL (AKA TORGESON PARK WELL) IS LOCATED.

2. THE SANITARY CONTROL AREA (100 FOOT RADIUS AROUND THE WELL) IS APPROXIMATELY THE SAME SIZE AS THE SYMBOL USED TO IDENTIFY THE CENTENNIAL WELL ON THIS

REFERENCE(S)

1. GOLDER (SANITARY CONTROL AREA, 6-MONTH TRAVEL TIME, WELLHEAD PROTECTION ZONES, WELLS)

2. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

3. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

CITY OF NORTH BEND


PROJECT

WELLHEAD PROTECTION PLAN

TITLE

NB-1 DELINEATED WELLHEAD PROTECTION AREA

CONSULTANT

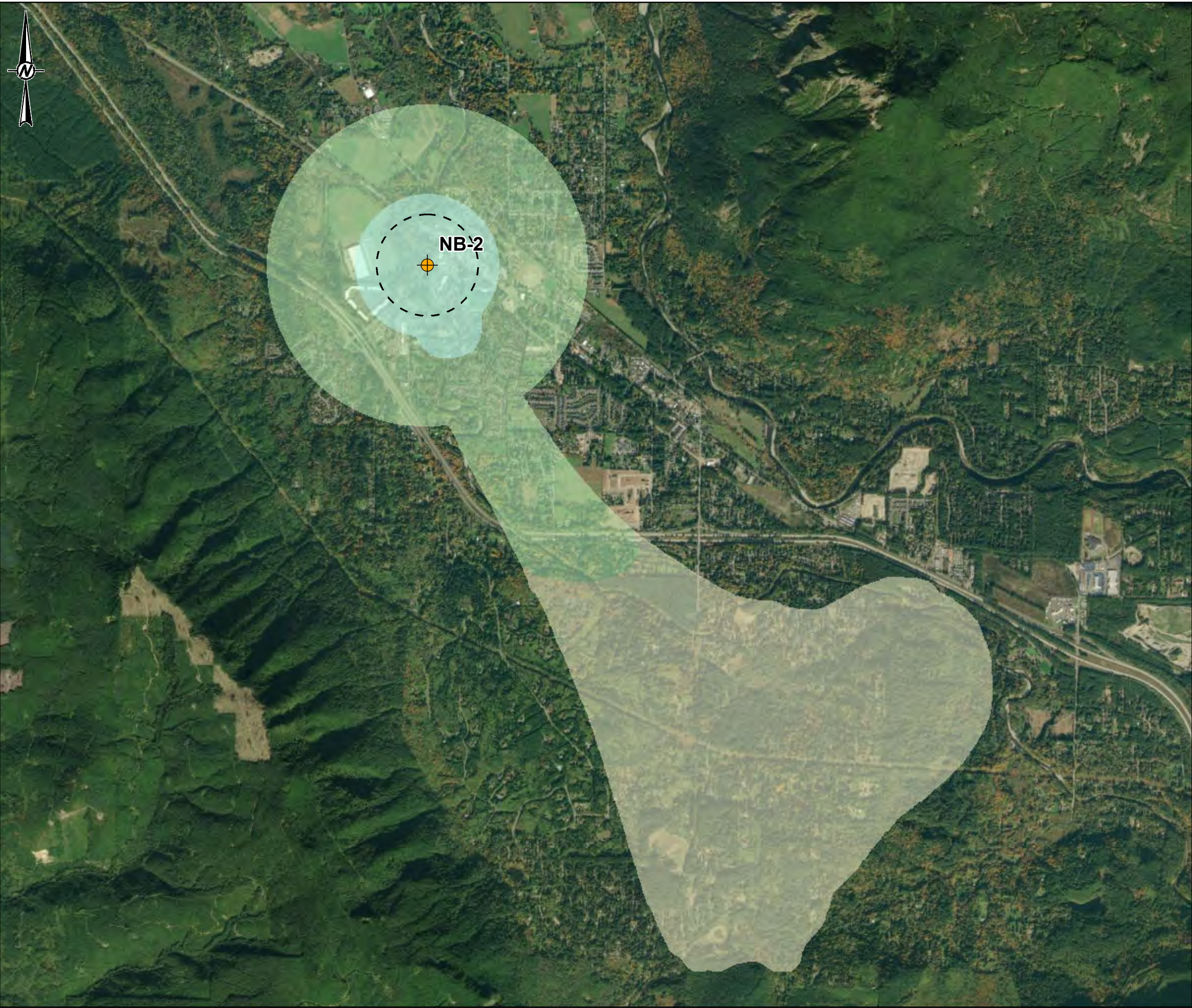
 GOLDER

YYYY-MM-DD	2020-04-17
DESIGNED	EP
PREPARED	TL
REVIEWED	JP
APPROVED	JP

PROJECT NO.	PHASE	REV.	FIGURE
130021817	004	0	4

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Attachment A

LEGEND

NB-2

6-Month Travel Time

1-Year Wellhead Protection Area

5-Year Wellhead Protection Area

10-Year Wellhead Protection Area

NOTE(S)

1. NB-2 IS A POTENTIAL FUTURE WITHDRAWAL POINT. FOR THIS ANALYSIS WE ASSUME THE WITHDRAWAL LOCATION IS WHERE THE CURRENT TEST WELL (AKA GARDNER WEEKS PARK WELL) IS LOCATED.

2. THE SANITARY CONTROL AREA (100 FOOT RADIUS AROUND THE WELL) IS APPROXIMATELY THE SAME SIZE AS THE SYMBOL USED TO IDENTIFY THE CENTENNIAL WELL ON THIS

REFERENCE(S)

1. GOLDER (SANITARY CONTROL AREA, 6-MONTH TRAVEL TIME, WELLHEAD PROTECTION ZONES, WELLS)

2. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

3. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

CITY OF NORTH BEND

PROJECT

WELLHEAD PROTECTION PLAN

TITLE

NB-2 DELINEATED WELLHEAD PROTECTION AREA

CONSULTANT

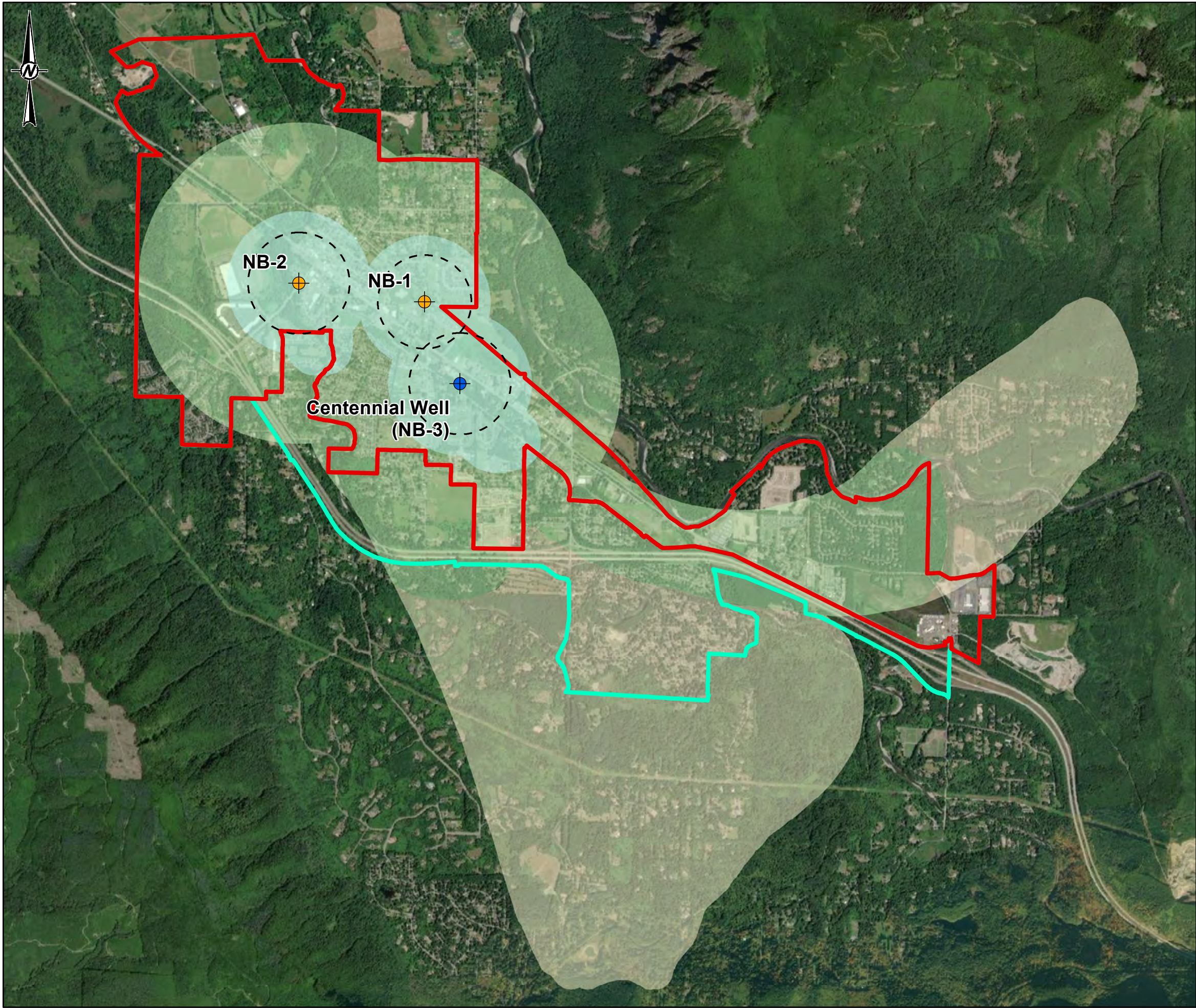
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YYYY-MM-DD	2020-04-17
DESIGNED	EP
PREPARED	TL
REVIEWED	JP
APPROVED	JP

PROJECT NO.	PHASE	REV.	FIGURE
130021817	004	0	5

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Attachment A

LEGEND

Centennial Well

Potential Future Groundwater Sources

6-Month Travel Time

1-Year Wellhead Protection Area

5-Year Wellhead Protection Area

10-Year Wellhead Protection Area

North Bend City Limits

North Bend Urban Growth Area

027004000

0 2,700 5,400
1" = 2,700 FEET FEET

NOTE(S)

1. THE PUMPING WELL MODELED CONE OF DEPRESSIONS REACH STEADY STATE BEFORE THE 6 MONTH TRAVEL TIME BOUNDARY. SO ZONES 1 TO 3 HAVE THE SAME BOUNDARY.

2. THE SANITARY CONTROL AREA (100 FOOT RADIUS AROUND THE WELL) IS APPROXIMATELY THE SAME SIZE AS THE SYMBOL USED TO IDENTIFY THE CENTENNIAL WELL ON THIS FIGURE.

REFERENCE(S)

1. CITY OF NORTH BEND (CITY LIMITS)

2. GOLDER (SANITARY CONTROL AREA, 6-MONTH TRAVEL TIME, WELLHEAD PROTECTION ZONES, WELLS)

3. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

4. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

CITY OF NORTH BEND

PROJECT

WELLHEAD PROTECTION PLAN

TITLE

COMBINED (NB-1, NB-2, AND NB-3)
DELINEATED WELLHEAD PROTECTION AREA

CONSULTANT

YYYY-MM-DD

2020-08-12

GOLDER

DESIGNED

EP

PREPARED

TL

REVIEWED

JP

APPROVED

JP

PROJECT NO.

130021817

PHASE

004

REV.

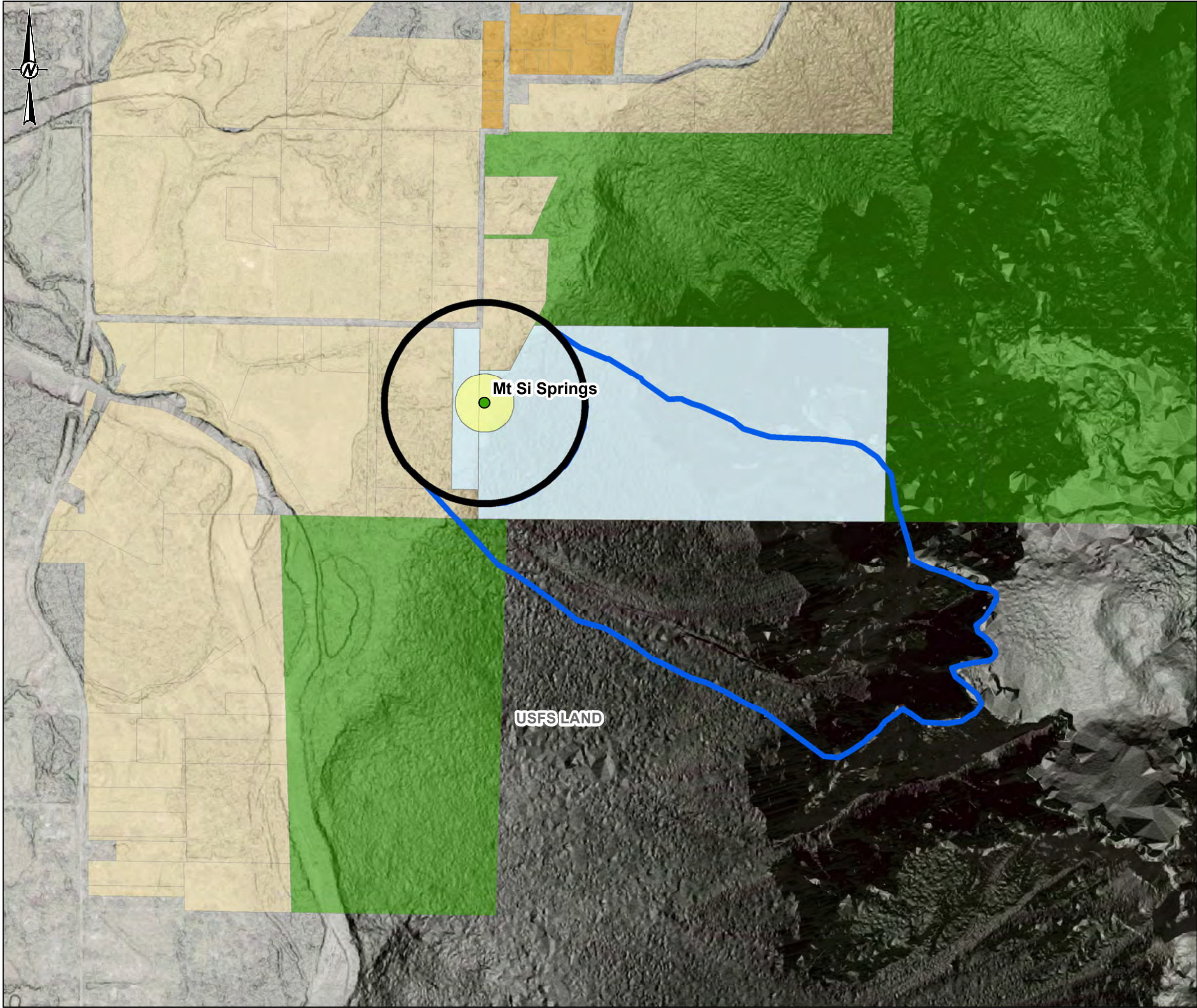
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FIGURE

6

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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Attachment A

LEGEND

Mt Si Springs

Sanitary Control Area (200 ft radius)

Wellhead Protection Area (fixed radius)

Wellhead Protection Area (estimated zone of contribution)

City Property

RA2.5 (Rural one DU per 5 Acre)

RA10 (Rural one DU per 10 Acre)

F (Forest)

06701,340

1" = 670 FEETFEET

REFERENCE(S)

1. CITY OF NORTH BEND (PARCEL, LANDUSE)
2. GOLDER (SPRINGS, SANITARY CONTROL AREA, WELLHEAD PROTECTION BUFFER/ZONES)
3. KING COUNTY (LIDAR, HILLSHADE)
4. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET
5. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

CITY OF NORTH BEND

PROJECT

WELLHEAD PROTECTION PLAN

TITLE

MOUNT SI SPRINGS
DELINEATED WELLHEAD PROTECTION AREA

CONSULTANT

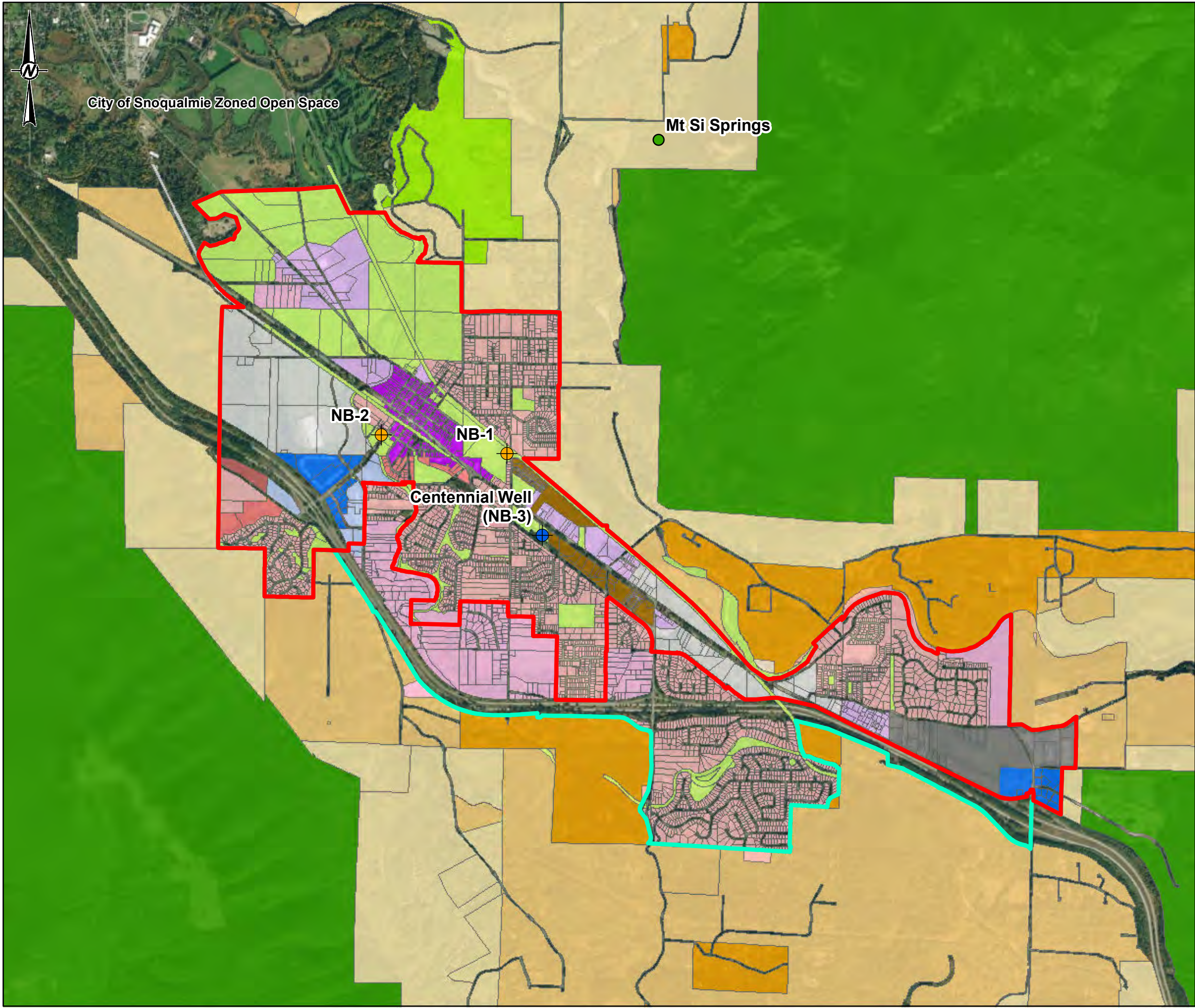
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YYYY-MM-DD	2020-07-08
DESIGNED	EP
PREPARED	TL
REVIEWED	JP
APPROVED	JP

PROJECT NO.	PHASE	REV.	FIGURE
130021817	004	1	7

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Attachment A

LEGEND

Centennial Well

Potential Future Groundwater Sources

Mt Si Springs

North Bend City Limits

North Bend Urban Growth Area

Land Use

Residential

CLDR (Constrained Low Density Residential)

LDR (Low Density Residential)

HDR (High Density Residential)

HDR1 (High Density Residential with Density Restrictions)

Industrial

EP-1 (Employment Park 1)

EP-2 (Employment Park 2)

Commercial

DC (Downtown Commercial)

NB (Neighborhood Business)

IC (Interchange Commercial)

IMU (Interchange Mixed-Use)

Other

CR (Cottage Residential)

RA-2.5 (Rural, one DU per 2.5 Acre)

RA-5 (Rural, one DU per 5 Acre)

RA-10 (Rural, one DU per 10 Acre)

A-35 (Agricultural, one DU per 35 Acre)

POSPF (Park, Open Space, and Public Facilities District)

F (Forest)

0

2,700

5,400

1" = 2,700 FEET

FEET

NOTE(S)

1. KING COUNTY ZONING DISTRICTS ARE PROVIDED IN AREA OUTSIDE OF NORTH BEND CITY LIMITS AND URBAN GROWTH AREAS. KING COUNTY RA-5 AND RA-10 ZONING DISTRICTS HAVE PRIMARILY RESIDENTIAL USES, BUT MAY CONTAIN BUSINESSES AND OTHER FACILITIES.

REFERENCE(S)

1. CITY OF NORTH BEND (CITY LIMITS, LANDUSE)

2. GOLDER (SPRINGS, WELLS)

3. KING COUNTY (LANDUSE ZONES)

4. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

5. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

CITY OF NORTH BEND

PROJECT

WELLHEAD PROTECTION PLAN

TITLE

LAND USE IN NORTH BEND

CONSULTANT

YYYY-MM-DD

2020-08-12

GOLDER

DESIGNED

EP

PREPARED

TL

REVIEWED

JP

APPROVED

JP

PROJECT NO.

130021817

PHASE

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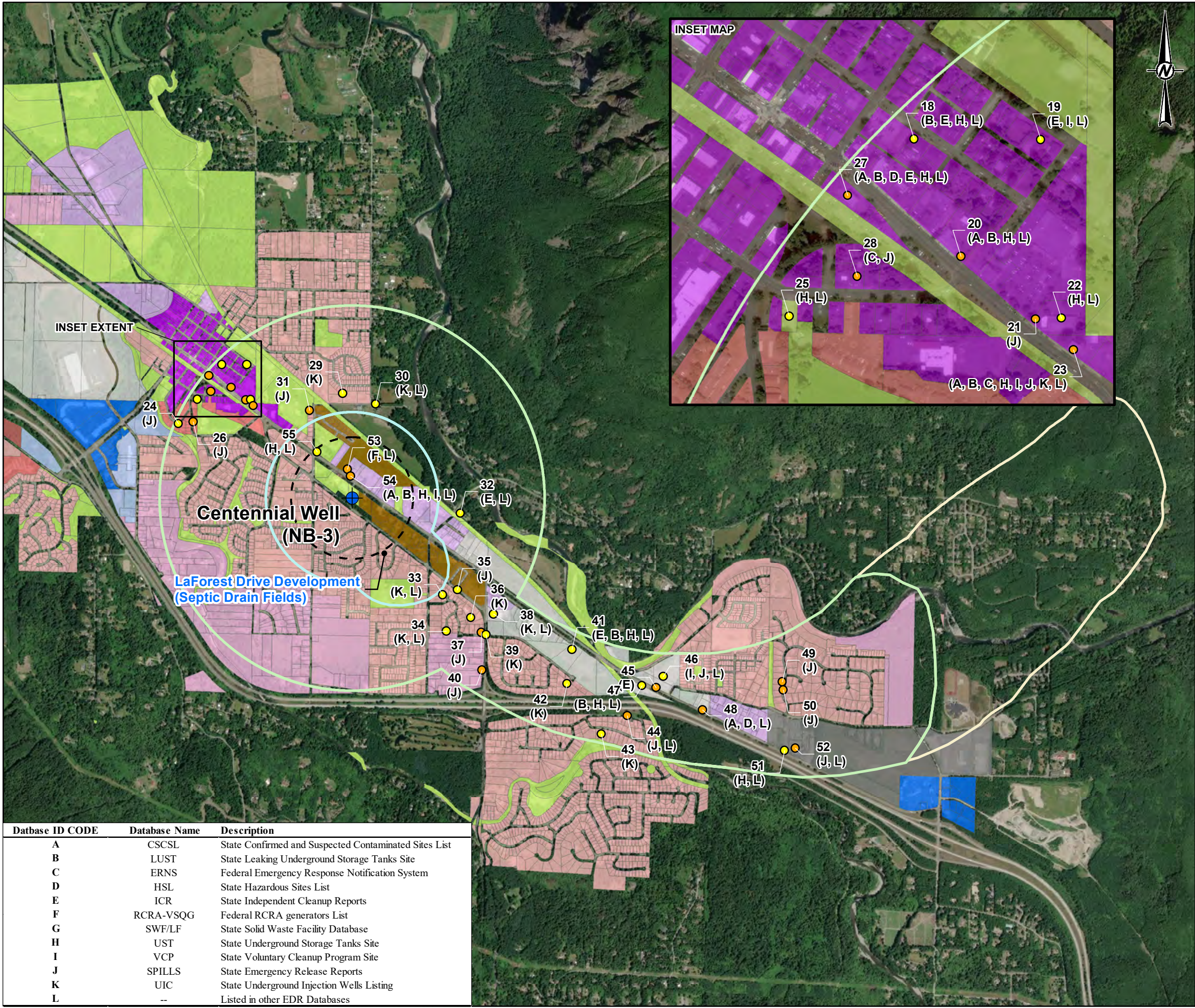
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FIGURE

8

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LEGEND

Centennial Well

Contaminant Source Inventory

- Low Potential Hazard Rating
- Moderate Potential Hazard Rating
- 6-Month Travel Time
- 1-Year Wellhead Protection Area
- 5-Year Wellhead Protection Area
- 10-Year Wellhead Protection Area

Land Use within City Limits and Urban Growth Area

Residential

- CLDR (Constrained Low Density Residential)
- LDR (Low Density Residential)
- HDR (High Density Residential)
- HDR1 (High Density Residential with Density Restrictions)

Industrial

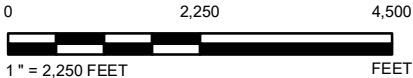
- EP-1 (Employment Park 1)
- EP-2 (Employment Park 2)

Commercial

- DC (Downtown Commercial)
- NB (Neighborhood Business)
- IC (Interchange Commercial)
- IMU (Interchange Mixed-Use)

Other

- CR (Cottage Residential)
- POSPF (Park, Open Space, and Public Facilities District)



NOTE(S)

- SOME CONTAMINANT SOURCE INVENTORY (CSI) LOCATIONS UPDATED BY GOLDER FROM SOURCE. SOURCE CSI ORIGINATED FROM ENVIRONMENTAL DATA RESOURCES (EDR).
- SEE REPORT TEXT FOR DETAILS ON HOW THE HAZARD RATING SYSTEM WAS DEVELOPED.

REFERENCE(S)

- CITY OF NORTH BEND (LANDUSE)
- EDR (CONTAMINANT SOURCE INVENTORY)
- GOLDER (WELLHEAD PROTECTION ZONES, WELLS)
- COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET
- MAP SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT
CITY OF NORTH BEND

PROJECT
WELLHEAD PROTECTION PLAN

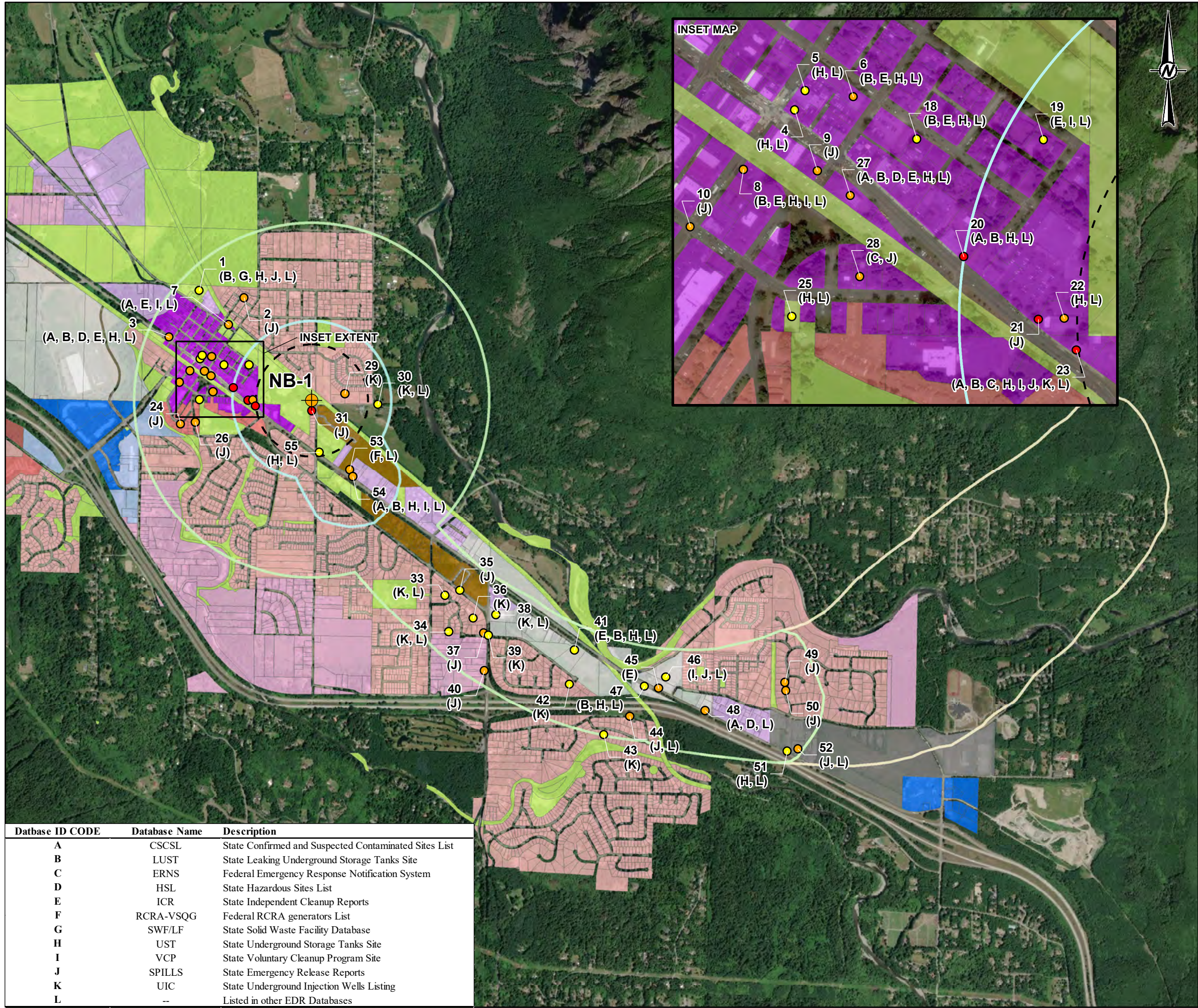
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**CENTENNIAL WELL (NB-3)
CONTAMINANT SOURCE INVENTORY**

CONSULTANT	YYYY-MM-DD	2020-08-12
DESIGNED	EP	
PREPARED	TL	
REVIEWED	JP	
APPROVED	JP	

PROJECT NO. 130021817 PHASE 004 REV. 1 FIGURE 9

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LEGEND

NB-1

Contaminant Source Inventory

- Low Potential Hazard Rating
- Moderate Potential Hazard Rating
- High Potential Hazard Rating

6-Month Travel Time

- 1-Year Wellhead Protection Area
- 5-Year Wellhead Protection Area
- 10-Year Wellhead Protection Area

Land Use within City Limits and Urban Growth Area

Residential

- CLDR (Constrained Low Density Residential)
- LDR (Low Density Residential)
- HDR (High Density Residential)
- HDR1 (High Density Residential with Density Restrictions)

Industrial

- EP-1 (Employment Park 1)
- EP-2 (Employment Park 2)

Commercial

- DC (Downtown Commercial)
- NB (Neighborhood Business)
- IC (Interchange Commercial)
- IMU (Interchange Mixed-Use)

Other

- CR (Cottage Residential)
- POSPF (Park, Open Space, and Public Facilities District)

02,2504,500

1" = 2,250 FEET

FEET

NOTE(S)

1. SOME CONTAMINANT SOURCE INVENTORY (CSI) LOCATIONS UPDATED BY GOLDER FROM SOURCE. SOURCE CSI ORIGINATED FROM ENVIRONMENTAL DATA RESOURCES (EDR).

2. SEE REPORT TEXT FOR DETAILS ON HOW THE HAZARD RATING SYSTEM WAS DEVELOPED.

REFERENCE(S)

1. CITY OF NORTH BEND (LANDUSE)

2. EDR (CONTAMINANT SOURCE INVENTORY)

3. GOLDER (WELLHEAD PROTECTION ZONES, WELLS)

4. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

5. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

CITY OF NORTH BEND

PROJECT

WELLHEAD PROTECTION PLAN

TITLE

NB-1 CONTAMINANT SOURCE INVENTORY

CONSULTANT

GOLDER

YYYY-MM-DD	2020-08-12
DESIGNED	EP
PREPARED	TL
REVIEWED	JP
APPROVED	JP

PROJECT NO.

130021817

PHASE

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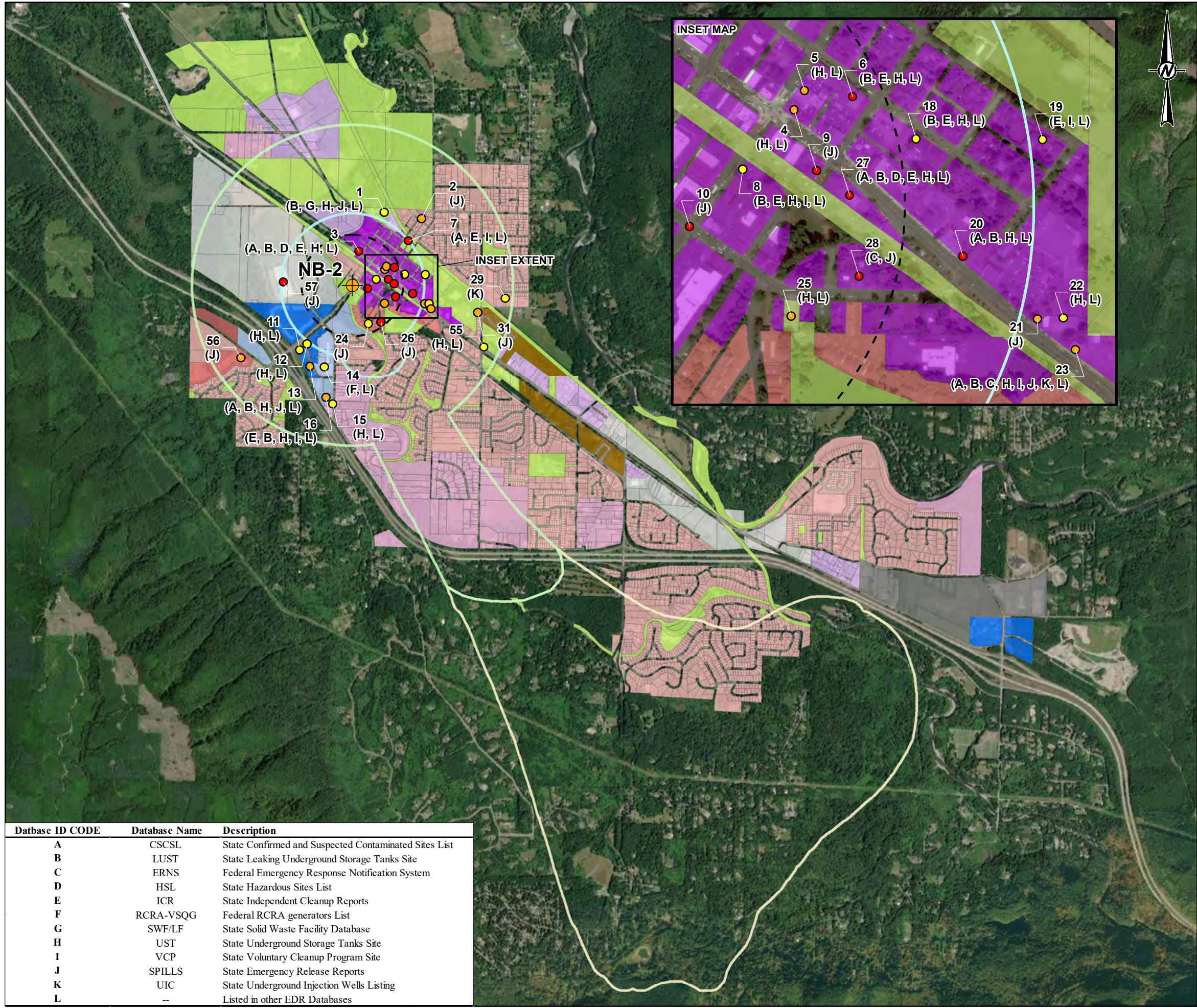
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FIGURE

10

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LEGEND

Attachment A

NB-2

Contaminant Source Inventory

- Low Potential Hazard Rating
- Moderate Potential Hazard Rating
- High Potential Hazard Rating

6-Month Travel Time

1-Year Wellhead Protection Area

5-Year Wellhead Protection Area

10-Year Wellhead Protection Area

Land Use within City Limits and Urban Growth Area

Residential

- CLDR (Constrained Low Density Residential)
- LDR (Low Density Residential)
- HDR (High Density Residential)
- HDR1 (High Density Residential with Density Restrictions)

Industrial

- EP-1 (Employment Park 1)
- EP-2 (Employment Park 2)

Commercial

- DC (Downtown Commercial)
- NB (Neighborhood Business)
- IC (Interchange Commercial)
- IMU (Interchange Mixed-Use)

Other

- CR (Cottage Residential)
- POSPF (Park, Open Space, and Public Facilities District)

027005400

1" = 2,700 FEET

FEET

NOTE(S)

1. SOME CONTAMINANT SOURCE INVENTORY (CSI) LOCATIONS UPDATED BY GOLDER FROM SOURCE. SOURCE CSI ORIGINATED FROM ENVIRONMENTAL DATA RESOURCES (EDR).

2. SEE REPORT TEXT FOR DETAILS ON HOW THE HAZARD RATING SYSTEM WAS DEVELOPED.

REFERENCE(S)

1. CITY OF NORTH BEND (LANDUSE)

2. EDR (CONTAMINANT SOURCE INVENTORY)

3. GOLDER (WELLHEAD PROTECTION ZONES, WELLS)

4. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

5. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

CITY OF NORTH BEND

PROJECT

WELLHEAD PROTECTION PLAN

TITLE

NB-2 CONTAMINANT SOURCE INVENTORY

CONSULTANT

XXXX-MM-DD2020-08-12

DESIGNEDEP

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REVIEWEDJP

APPROVEDJP

PROJECT NO.

130021817

PHASE

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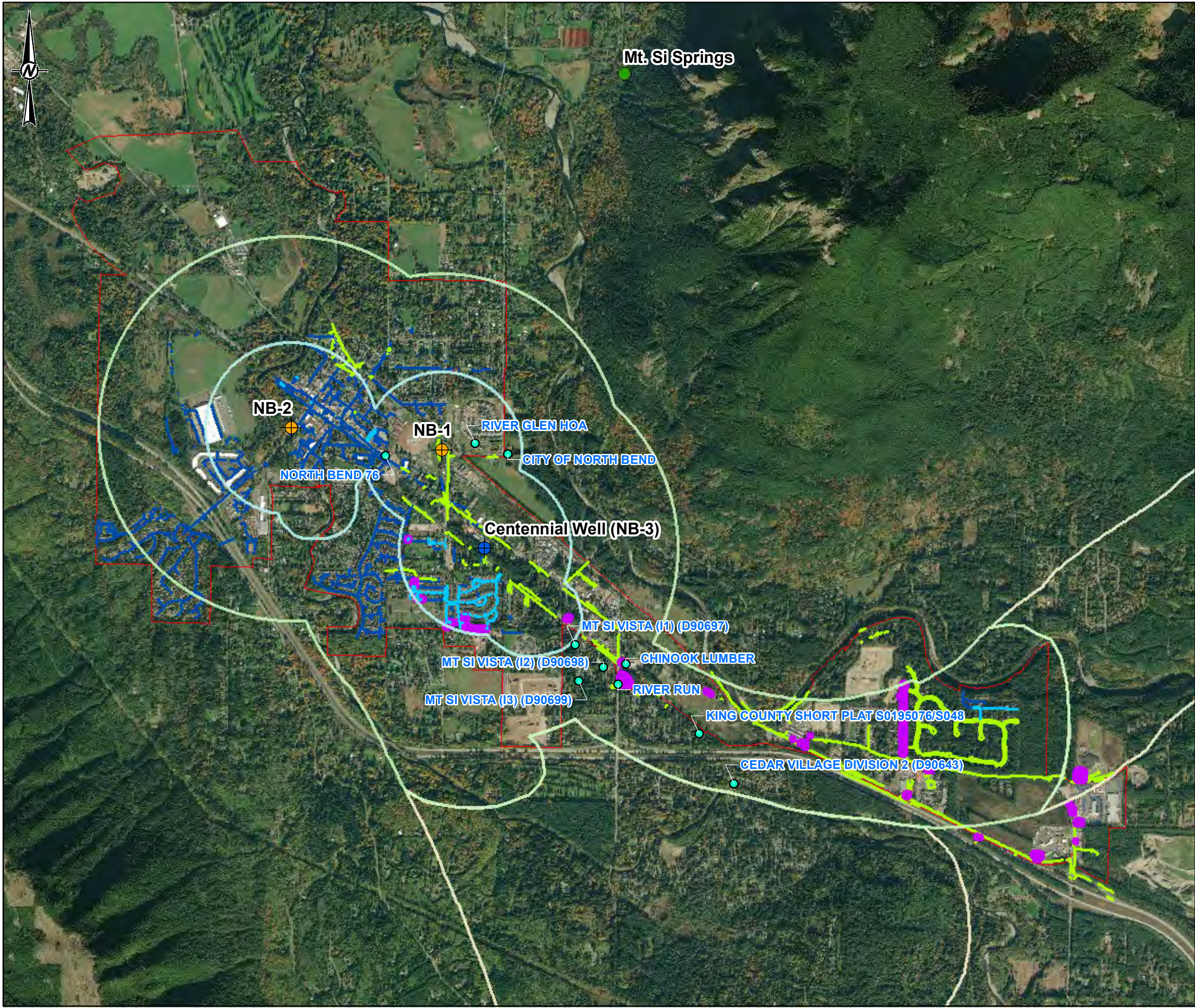
FIGURE

11

Database ID CODE	Database Name	Description
A	CSCSL	State Confirmed and Suspected Contaminated Sites List
B	LUST	State Leaking Underground Storage Tanks Site
C	ERNS	Federal Emergency Response Notification System
D	HSL	State Hazardous Sites List
E	ICR	State Independent Cleanup Reports
F	RCRA-VSQG	Federal RCRA generators List
G	SWF/LF	State Solid Waste Facility Database
H	UST	State Underground Storage Tanks Site
I	VCP	State Voluntary Cleanup Program Site
J	SPILLS	State Emergency Release Reports
K	UIC	State Underground Injection Wells Listing
L	--	Listed in other EDR Databases

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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LEGEND

Attachment A

Centennial Well

Potential Future Groundwater Sources

Mt Si Springs

UIC Wells

1-Year Wellhead Protection Area

5-Year Wellhead Protection Area

10-Year Wellhead Protection Area

Bioretention Swales and Rain Gardens

Stormwater Detention Ponds

Conveyance Lines (including ditches)

Conveyance Pipes

North Bend City Limits

022504500

02250

FEET

1" = 2,250 FEET

NOTE(S)

1. STORMWATER INFRASTRUCTURE SHOWN IS NOT COMPREHENSIVE OF ALL STORMWATER INFRASTRUCTURE IN CITY.

REFERENCE(S)

1. CITY OF NORTH BEND (CITY LIMITS)
2. EDR (UIC WELLS)
3. GRAY AND OSBORNE (BIORETENTION SWALES, CONVEYANCE LINES/PIPE, RAIN GARDENS, STORMWATER PONDS)
4. GOLDER (SPRINGS, WELLHEAD PROTECTION ZONES, WELLS)
5. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET
6. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

CITY OF NORTH BEND

PROJECT

WELLHEAD PROTECTION PLAN

TITLE

STORMWATER FACILITIES

CONSULTANT

YYYY-MM-DD

2020-04-17

GOLDER

DESIGNED

EP

PREPARED

TL

REVIEWED

JP

APPROVED

JP

PROJECT NO.

130021817

PHASE

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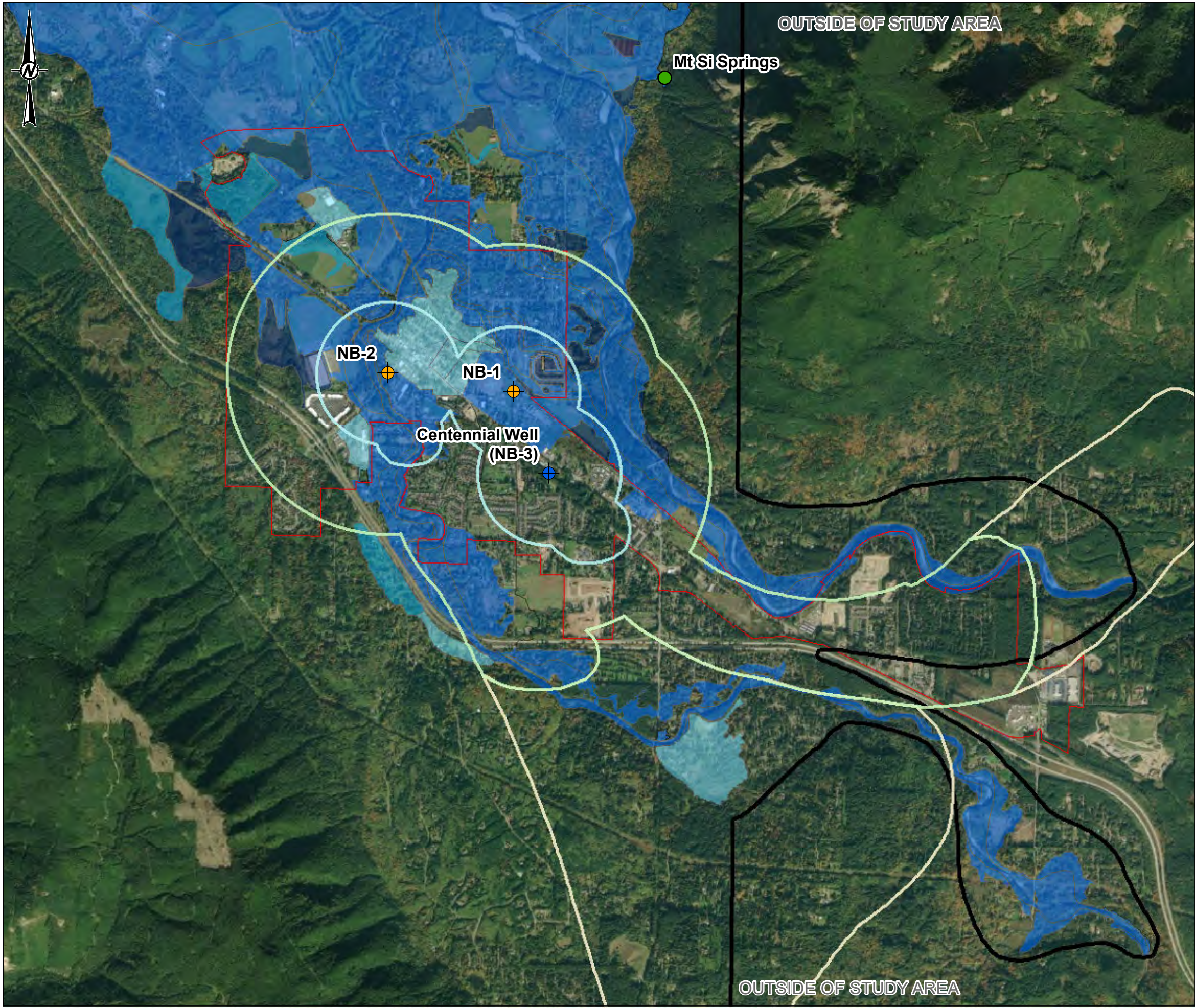
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FIGURE

12

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Attachment A

LEGEND

Centennial Well

Potential Future Groundwater Sources

Mt Si Springs

1-Year Wellhead Protection Area

5-Year Wellhead Protection Area

10-Year Wellhead Protection Area

Flood Zone

500-Year Floodplain

AE - 100-Year Floodplain

AH - 100-Yr Floodplain (Shallow Ponding Area)

AH - 100-Yr Floodplain (Shallow Flooding Area)

X - Outside of Flood Hazard Area

X - Protected by Levee

City Limits

027005400

1" = 2,700 FEET

FEET

REFERENCE(S)

1. CITY OF NORTH BEND (CITY LIMITS, LANDUSE)

2. FEMA (FLOOD ZONES)

3. GOLDER (SPRINGS, WELLHEAD PROTECTION ZONE, WELLS)

4. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

5. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

CITY OF NORTH BEND

PROJECT

WELLHEAD PROTECTION PLAN

TITLE

FLOOD HAZARD MAP

CONSULTANT

YYYY-MM-DD

2020-04-17

GOLDER

DESIGNED

EP

PREPARED

TL

REVIEWED

JP

APPROVED

JP

PROJECT NO.

130021817

PHASE

004

REV.

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FIGURE

13

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

APPENDIX A

Susceptibility Assessments

Ground Water Contamination Susceptibility Assessment Survey Form Version 2.2

IMPORTANT! Please complete one form for each ground water source (well, wellfield, spring) used in your water system.
Photocopy as necessary.

PART I: System Information

Well owner/manager : Les Saberniak

Water system name : City of North Bend

County: King

Water system number: 60100-A Source number: S01

Well depth: _____ (ft.) (From WFI form)

Source name: Mt. Si Spring

WA well identification tag number: _____

_____ well not tagged

Number of connections: 1211 Population served: 2790

Township: 24N Range: 08E

Section: 35 1/4 1/4 Section: /

Latitude/longitude (if available): 47 30Min. 57Sec. / 121 45Min. 28Sec.

How was lat./long. determined?

_____ global positioning device _____ survey X topographic map

_____ other: _____

* Please refer to Assistance Packet for details and explanations of all questions in Parts II through V.

PART II: Well Construction and Source Information

1) Date well originally constructed: _____ / _____ / _____ month/day/year

last reconstruction: _____ / _____ / _____ month/day/year

_____ information unavailable

RECEIVED

MAR 9 1995

NW DRINKING WATER

2) Well driller: _____

___ well driller unknown

3) Type of well:

___ **Drilled:** ___ rotary ___ bored ___ cable (percussion) ___ **Dug**

___ **Other:** ___ spring(s) ___ lateral collector (Ranney)

___ driven ___ jetted ___ other: _____

Additional comments: _____

4) Well report available? ___ YES (attach copy to form) ___ NO

If no well log is available, please attach any other records documenting well construction; e.g. boring logs, "as built" sheets, engineering reports, well reconstruction logs.

5) Average pumping rate: _____ (gallons/min)

Source of information: _____

If not documented, how was pumping rate determined? _____

___ Pumping rate unknown

6) Is this source treated? ☒ YES ___ NO

If so, what type of treatment:

☒ disinfection ___ filtration ___ carbon filter ___ air stripper ___ other

Purpose of treatment (describe materials to be removed or controlled by treatment):

Coliform Bacteria

7) If source is chlorinated, is a chlorine residual maintained: ☒ YES ___ NO

Residual level: 40 (At the point closest to the source.)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

☒ (less than) 20 ft ☐ 20-50 ft ☐ 50-100 ft ☐ 100-200 ft ☐ (greater than) 200 ft
☐ information unavailable

2) Depth to ground water (static water level):

☐ (less than) 20 ft ☐ 20-50 ft ☐ 50-100 ft ☐ (greater than) 100 ft
☒ flowing well/spring (artesian)

How was water level determined?

☐ well log ☐ other: _____
☐ depth to ground water unknown

3) If source is a flowing well or spring, what is the confining pressure:

☐ 0 psi (pounds per square inch)
or
☐ feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source: ☒ YES ☐ NO

5) Wellhead elevation (height above mean sea level): _____ (ft)

How was elevation determined? ☐ topographic map ☐ Drilling/Well Log ☐ altimeter
☐ other: _____
☐ information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

☐ evidence of a confining layer in well log
☐ no evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the bottom of the lowest confining layer? ☐ YES ☐ NO

☐ information unavailable

7) Sanitary setback:

☐ (less than) 100 ft* ☐ 100-120 ft ☒ 120-200 ft ☐ (greater than) 200 ft
* if less than 100 ft describe the site conditions:

8) Wellhead construction:

☐ wellhead enclosed in a wellhouse

☐ controlled access (describe):

☐ other uses for wellhouse (describe):

☐ no wellhead control

9) Surface seal:

☐ 18 ft

☐ (less than) 18 ft (no Department of Ecology approval)

☐ (less than) 18 ft (Approved by Ecology, include documentation)

☐ (greater than) 18 ft

☐ depth of seal unknown

☒ no surface seal

10) Annual rainfall (inches per year):

☐ (less than) 10 in/yr

☐ 10-25 in/yr

☒ (greater than) 25 in/yr

PART IV: Mapping Your Ground Water Resource

1) Annual volume of water pumped: 158.7 Million (gallons)

How was this determined?

158,700,000

 X meter

___ estimated: ___ pumping rate (_____)

___ pump capacity (_____)

other: _____

2) "Calculated Fixed Radius" estimate of ground water movement:
(see Instruction Packet)

6 month ground water travel time : 1550 (ft)

1 year ground water travel time : 2200 (ft)

5 year ground water travel time: 4920 (ft)

10 year ground water travel time: 6950 (ft)

Information available on length of screened/open interval?

 YES X NO

Length of screened/open interval: 10 Ft. Est. (ft)

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6 month time of travel boundary? YES X NO (mark and identify on map).

4) Is there a stormwater and/or wastewater facility, treatment lagoon, or holding pond located within the 6 month time of travel boundary? ☐ YES ☐ NO (mark and identify on map).

Comments: _____

.....

PART V: Assessment of Water Quality**1) Regional sources of risk to ground water:**

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five year ground water travel time:

	6 month	1 year	5 year	unknown
likely pesticide application	_____	_____	_____	_____
stormwater injection wells	_____	_____	_____	_____
other injection wells	_____	_____	_____	_____
abandoned ground water well	_____	_____	_____	_____
landfills, dumps, disposal areas	_____	_____	_____	_____
known hazardous materials clean-up site	_____	_____	_____	_____
water system(s) with known quality problems	_____	_____	_____	_____
population density (greater than) 1 house/acre	_____	_____	_____	_____
residences commonly have septic tanks	_____	X	X	_____
Wastewater treatment lagoons	_____	_____	_____	_____
sites used for land application of waste	_____	_____	_____	_____

Mark and identify on map any of the risks listed above which are located within the 6 month time of travel boundary? *(Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following.)*

If other recorded or potential sources of ground water contamination exist within the ten year time of travel circular zone around your water supply, please describe:

2) Source specific water quality records:

Please indicate the occurrence of any test results since 1986 that meet the following conditions:
(Unless listed on assessment, MCLs are listed in assistance package.)

A. Nitrate: (Nitrate MCL = 10 mg/l)YES

Results greater than MCL

(less than) 2 mg/liter nitrate

2-5 mg/liter nitrate

(greater than) 5 mg/liter nitrate

Nitrate sampling records unavailable

XB. VOCs: (VOC detection level 0.5 ug/l or 0.0005 mg/l.)YES

Results greater than MCL or SAL

VOCs detected at least once

VOC test performed but never detected

VOC sampling records unavailable

XC. EDB/DBCP:YES

(EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.)

EDB/DBCP detected below MCL at least once

EDB/DBCP detected above MCL at least once

EDB/DBCP never detected

EDB/DBCP tests required but not yet completed

EDB/DBCP tests not required

XD. Other SOCs (pesticides and other synthetic organic chemicals):YES

Other SOC detected

Other SOC tests performed but none detected *

Other SOC tests not performed

X

*If any SOC in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOC detected, list test methods here: _____

E. Bacterial contamination:YES

Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records). _____

Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source. _____

Source sampling records for bacteria unavailable _____

Part VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

1) Is there evidence of obvious hydrologic boundaries within the 10 year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake, up a steep hillside, and/or over a mountain or ridge?)

☒ YES

☐ NO

Describe with references to map produced in Part IV:

Mt. Si to the East of Spring site - Middle Fork of the

Snoqualmie River to the West

2) Aquifer Material:

A) Does the drilling log, well log or other geologic/engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

☐ YES

☐ NO

B) Does the drilling log, well log or other geologic/engineering reports indicate that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

☐ YES

☐ NO

3) Is the source located in an aquifer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs.)

☒ YES

☐ NO

4) Are there other high capacity wells (agricultural, municipal and/or industrial) located within the CFRs?

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within...

	YES	NO	unknown
6 month travel time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 month-1 year travel time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1-5 year travel time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5-10 year travel time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within...

	YES	NO	unknown
1 year travel time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1-5 year travel time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5-10 year travel time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please identify or describe additional hydrologic or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map produced in Part IV.

Mt. Si Spring flows from Mt. Si, this creates a natural boundary
to the East. Land development is limited to 5 acre minimum size
parcels.

Suggestions and Comments

Did you attend one of the susceptibility workshops? ☐ YES ☒ NO

Did you find it useful? ☐ YES ☐ NO

Did you seek outside assistance to complete the assessment? ☐ YES ☐ NO

This form and instruction packet are still in the process of development. Your comments, suggestions and questions will help us upgrade and improve this assessment form. If you found particular sections confusing or problematic please let us know. How could this susceptibility assessment be improved or made clearer? Did the instruction package help you find the information needed to complete the assessment? How much time did it take you to complete the form? Were you able to complete the assessment without additional/outside expertise? Do you feel the assessment was valuable as a learning experience? Any other comments or constructive criticisms you have would be appreciated.





Ground Water Contamination Susceptibility Assessment Survey Form Version 2.2

IMPORTANT! Please complete one form for each ground water source (well, wellfield, spring) used in your water system.
Photocopy as necessary.

PART I: System Information

Well owner/manager: Mr. Ron Garrow, Public Works Director

Water system name: City of North Bend

County: King

Water system number: 60100A Source number: S03

Well depth: 216 feet (From WFI form)

Source name: _____

WA well identification tag number: A P N - 0 6 1

☐ Well not tagged

Number of connections: ~1,700 Population served: ~4,660

Township: 23 Range: 8E

Section: 10 ¼ ¼ Section: SE,SW

Latitude/longitude (if available): 47d 29m 10s N / 121d 46m 14s W

How was latitude/longitude determined?

Global positioning device survey X topographical map
other: _____

*Please refer to Assistance Packet for details and explanations of all questions in Parts II through V.

PART II: Well Construction and Source Information

1) Date well originally constructed: 9 / 14 / 06 month/day/year

last reconstruction: / / month/day/year

☐ Information unavailable

2) Well driller: Ross Otto, Boart Longyear

☐ Well driller unknown

3) Type of well:

X Drilled: ☒ rotary ☐ bored ☐ cable (percussion) ☐ Dug

___ other: ☐ spring(s) ☐ lateral collector (Ranney)

☐ driven ☐ jetted ☐ other: _____

4) Well report available ☒ Yes (attach copy to form) ☐ No

5) Average pumping rate: 2,500 (gallons/min)

Source of information Hydrogeological Report

If not documented, how was pumping rate determined? _____

☐ Pumping rate unknown

6) Is this source treated?

If so, what type of treatment:

☒ disinfection ☐ filtration ☐ carbon filter ☐ air stripper ☐ other

Purpose of treatment (describe materials to be removed or controlled by treatment):

7) If source is chlorinated, is a chlorine residual maintained: ☒ Yes ☐ No

Residual level: 0.4 mg/L (At the point closest to the source.)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

☐ <20 ft ☐ 20-50ft ☐ 50-100ft ☒ 100-200ft ☐ >200ft☐ information unavailable

2) Depth to ground water (static water level):

☒ <20ft ☐ 20-50ft ☐ 50-100ft ☐ >100ft☐ flowing well/spring (artesian)

How was water level determined?

☒ well log ☐ other _____☐ depth to ground water unknown

3) If source is a flowing well or spring, what is the confining pressure:

_____ N/A psi (pounds per square inch) **or**_____ N/A feet above wellhead4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source: ☐ Yes ☐ No5) Wellhead elevation (height above mean sea level): 465 feetHow was elevation determined? ☒ topographic map ☐ Drilling/Well Log ☐ altimeter☐ other: _____☐ information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

_____ evidence of a confining layer in well log

X no evidence of a confining layer in well logIf there is evidence of a confining layer, is the depth to ground water more than 20 feet above the **bottom** of the **lowest confining layer**? ☐ Yes ☐ No☐ information unavailable

7) Sanitary setback:

☐ < 100ft* ☒ 100-120ft ☐ 120-200 ft ☐ >200ft

* If less than 100ft, describe the site conditions:

8) Wellhead construction:

☒ wellhead enclosed in a wellhouse

☐ controlled access (describe): _____

☐ other uses for wellhouse (describe): _____

☐ no wellhead control

9) Surface seal:

☐ 18 ft

☒ >18 ft (no Department of Ecology approval)

☐ <18 ft (Approved by Ecology, include documentation)

☐ depth of seal unknown

☐ no surface seal

10) Annual rainfall (inches per year):

☐ <10 in/yr ☐ 10-25 in/yr ☒ >25 in/yr

PART IV: Mapping Your Ground Water Resource

1) Annual volume of water pumped: 355,000,000 (gallons)

How was this determined?

☐ meter

☒ estimated: ☐ pumping rate (_____)

☐ pump capacity (_____)

☒ other: Three-fourths of 20-year system demand

2) "Calculated Fixed Radius" estimate of ground water movement:
(see Instruction Packet)

6-month ground water travel time: 829 feet

1-year ground water travel time: 1,172 feet

5-year ground water travel time: 2,620 feet

10-year ground water travel time: 3,706 feet

Information available on length of screened/open interval?

☒ Yes ☐ No

Length of screened/open interval: 50 feet

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6-month time of travel boundary?

☐ Yes ☒ No (mark and identify on map)

4) Is there a stormwater and/or wastewater facility, treatment lagoon, or holding pond located within the 6-month time of travel boundary?

☐ Yes ☒ No (mark and identify on map)

Comments: Stormwater detention pond on Public works site approximately
400 feet from production well.

PART V: Assessment of Water Quality

1) Regional sources of risk to ground water:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five-year ground water travel time:

	6 months	1 year	5 year	10 year
• likely pesticide application	_____	_____	_____	_____
• stormwater injection wells	_____	_____	_____	_____
• other injection wells	_____	_____	_____	_____
• abandoned ground water well	_____	_____	_____	_____
• landfills, dumps, disposal areas	_____	_____	_____	_____
• known hazardous materials clean-up site	_____	_____	_____	_____
• water system(s) with known quality problems	_____	_____	_____	_____
• population density >1 house/acre	X	X	X	X
• residences commonly have septic tanks	_____	_____	_____	_____
• Wastewater treatment lagoons	_____	_____	_____	_____
• sites used for land application of waste	_____	_____	_____	_____

Mark and identify on map any of the risks listed above which are located within the 6-month time of travel boundary. (Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following.)

If other recorded or potential sources of ground water contamination exist within the ten-year time of travel circular zone around your water supply, please describe:

N/A

2) Source-specific water quality records:

Please indicate the occurrence of any test results since 1986 that meet the following conditions:

(Unless listed on assessment, MCLs are listed in assistance package.)

A. Nitrate: (Nitrate MCL = 10 mg/l)	YES
Results greater than MCL	_____
<2 mg/liter nitrate	_____ X _____
2-5 mg/liter nitrate	_____
<5 mg/liter nitrate	_____
Nitrate sampling records unavailable	_____
 B. VOCs: (VOC detection level 0.5 ug/l or 0.0005 mg/l)	YES
Results greater than MCL or SAL	_____
VOCs detected at least once	_____ X _____
VOCs never detected	_____
VOC sampling records unavailable	_____
 C. EDB/DBCP:	YES
(EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.)	
EDB/DBCP detected below MCL at least once	_____
EDB/DBCP detected above MCL at least once	_____
EDB/DBCP never detected	_____ X _____
EDB/DBCP tests required but not yet completed	_____
EDB/DBCP tests not required	_____
 D. Other SOC (Pesticides):	YES
Other SOC detected	
(pesticides and other synthetic organic chemicals)	_____
Other SOC tests performed but none detected	
(list test methods in comments)	_____ X _____
Other SOC tests not performed	_____

If any SOC in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOC detected, list test methods here: _____

EPA Methods 515.1, 525.2, 508.1, 531.2 for State Drinking Water Compliance were

used for SOC tests

E. Bacterial contamination:	YES
Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records)?	_____ X _____

Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source? _____

Source sampling records for bacteria unavailable _____

PART VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

- 1) Is there evidence of obvious hydrologic boundaries within the 10-year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake, up a steep hillside, and/or over a mountain or ridge?)

☒ Yes ☐ No

Describe with references to map produced in Part IV:

The Middle Fork Snoqualmie River is within the NE boundary of the 10-year time of travel zone

- 2) Aquifer Material:

- A) Does the drilling log, well log or other geologic/engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

☐ Yes ☒ No

- B) Does the drilling log, well log or other geologic/engineering reports indicate that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

☒ Yes ☐ No

- 3) Is the source located in an aquifer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs.)

☐ Yes ☒ No

4) Are there other high capacity wells (agricultural, municipal and/or industrial) located within the CFRs?

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within...

	YES	NO	unknown
<6-month travel time	<u> </u>	<u> X </u>	<u> </u>
6 month—1 year travel time	<u> </u>	<u> X </u>	<u> </u>
1—5 year travel time	<u> </u>	<u> X </u>	<u> </u>
5—10 year travel time	<u> </u>	<u> X </u>	<u> </u>

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within...

	YES	NO	unknown
<1-year travel time	<u> </u>	<u> X </u>	<u> </u>
1—5 year travel time	<u> </u>	<u> </u>	<u> X </u>
5—10 year travel time	<u> </u>	<u> </u>	<u> X </u>

Please identify or describe additional hydrologic or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map produced in Part IV.

N/A

APPENDIX B

**Contaminant Source Data Inventory
(EDR Report)**

City of North Bend Well Head Protection Plan

City of North Bend Well Head Protection Plan

North Bend, WA 98045

Inquiry Number: 5992688.2s

March 05, 2020

EDR Area / Corridor Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
 Please contact EDR at 1-800-352-0050
 with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

SUBJECT PROPERTY INFORMATION

ADDRESS

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

TARGET PROPERTY SEARCH RESULTS

The Target Property was identified in the following databases.

Page Numbers and Map Identifications refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

A review of the RCRA-VSQG list, as provided by EDR, and dated 12/16/2019 has revealed that there are 2 RCRA-VSQG sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<i>NORTH BEND AUTO PART</i> EPA ID:: WAH000010827	<i>1120 E NORTH BEND WA</i>	<i>AS179 / 13</i>	<i>287</i>
SAFEWAY STORE 1528 EPA ID:: WAH000044838	460 SW MT SI BLVD	AV196 / 12	330

Federal ERNS list

ERNS: Emergency Response Notification System

A review of the ERNS list, as provided by EDR, and dated 09/09/2019 has revealed that there are 2 ERNS sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
Not reported	312 E. PARK ST.	AB108 / 12	211

EXECUTIVE SUMMARY

Incident Date Time: 2013-10-16 07:00:00

NRC Report #: 1063259

Not reported

520 EAST NORTHBEND W

AH138 / 12

243

Incident Date Time: 2014-04-25 03:56:00

NRC Report #: 1080814

State- and tribal - equivalent NPL

WA HSL: Hazardous Sites List

A review of the WA HSL list, as provided by EDR, and dated 08/28/2019 has revealed that there are 3 WA HSL sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
BRYANS ONE STOP	302 W NORTH BEND WAY	I38 / 12	109
Facility Type: Hazardous Sites List			
FSID Number: 77989332			
Facility Status: Cleanup Started			
NORTH BEND SHELL	225 E NORTH BEND WAY	X95 / 12	179
Facility Type: Hazardous Sites List			
FSID Number: 82682276			
Facility Status: Cleanup Started			
ESTATE OF DANIEL H C	45120 SE NORTH BEND	BV318 / 19	468
Facility Type: Hazardous Sites List			
FSID Number: 11385314			
Facility Status: Awaiting Cleanup			

State- and tribal - equivalent CERCLIS

WA CSCSL: Confirmed and Suspected Contaminated Sites List

A review of the WA CSCSL list, as provided by EDR, and dated 10/15/2019 has revealed that there are 8 WA CSCSL sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND COMMUNITY	126 E 4TH	E24 / 12	101
Site Status: Cleanup Started			
Clean Up Siteid: 2389			
Facility ID: 7437936			
Soil: Confirmed Above Cleanup Levels			
Contaminant Name: Petroleum Products-Unspecified			
BRYANS ONE STOP	302 W NORTH BEND WAY	I38 / 12	109
Site Status: Cleanup Started			
Clean Up Siteid: 10507			
Facility ID: 77989332			
Soil: Confirmed Above Cleanup Levels			
Ground Water: Confirmed Above Cleanup Levels			
Contaminant Name: Benzene			

EXECUTIVE SUMMARY

Contaminant Name: Petroleum-Diesel
 Contaminant Name: Petroleum-Gasoline
 Contaminant Name: Petroleum-Other

NORTH BEND SHELL	225 E NORTH BEND WAY	X95 / 12	179
Site Status: Cleanup Started Clean Up Siteid: 10655 Facility ID: 82682276 Soil: Confirmed Above Cleanup Levels Ground Water: Confirmed Above Cleanup Levels Contaminant Name: Petroleum-Other			
UNOCAL SERVICE STN 2	330 & 354 E NORTH BE	Y107 / 12	204
Site Status: Cleanup Started Clean Up Siteid: 6630 Facility ID: 75685473 Soil: Confirmed Above Cleanup Levels Soil: Below Cleanup Levels Ground Water: Confirmed Above Cleanup Levels Ground Water: Below Cleanup Levels Contaminant Name: Benzene Contaminant Name: Lead Contaminant Name: Methyl tertiary-butyl ether Contaminant Name: Petroleum-Diesel Contaminant Name: Petroleum-Gasoline <i>*Additional key fields are available in the Map Findings section</i>			
NORTH BEND 76	520 E NORTH BEND WAY	AH141 / 12	246
Site Status: Cleanup Started Clean Up Siteid: 5336 Facility ID: 4364196 Soil: Confirmed Above Cleanup Levels Ground Water: Confirmed Above Cleanup Levels Contaminant Name: Benzene Contaminant Name: Non-Halogenated Solvents Contaminant Name: Petroleum-Gasoline			
FRANK PADAVICH	1130 E NORTH BEND WA	AS183 / 13	314
Site Status: Cleanup Started Clean Up Siteid: 5983 Facility ID: 37779318 Soil: Confirmed Above Cleanup Levels Contaminant Name: Petroleum-Other			
SAFEWAY FUEL 1528	715 SW MT SI BLVD	AU198 / 17	333
Site Status: Cleanup Started Clean Up Siteid: 11075 Facility ID: 92656149 Soil: Remediated-Below Ground Water: Confirmed Above Cleanup Levels Ground Water: Suspected Contaminant Name: Benzene Contaminant Name: Petroleum-Diesel Contaminant Name: Petroleum-Gasoline Contaminant Name: Petroleum-Other			
ESTATE OF DANIEL H C	45120 SE NORTH BEND	BV318 / 19	468
Site Status: Awaiting Cleanup Clean Up Siteid: 3888			

EXECUTIVE SUMMARY

Facility ID: 11385314
 Soil: Suspected
 Soil: Confirmed Above Cleanup Levels
 Ground Water: Suspected
 Contaminant Name: Corrosive Wastes
 Contaminant Name: Halogenated Organics
 Contaminant Name: Metals Priority Pollutants
 Contaminant Name: Non-Halogenated Solvents

State and tribal landfill and/or solid waste disposal site lists

WA SWF/LF: Solid Waste Facility Database

A review of the WA SWF/LF list, as provided by EDR, has revealed that there is 1 WA SWF/LF site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND WASTEWATE	400 BENDIGO BLVD N	C13 / 12	85
Database: SWF/LF, Date of Government Version: 12/04/2019			
Facility Type: Biosolids Management			
Facility ID: 325			

State and tribal leaking storage tank lists

WA LUST: Leaking Underground Storage Tanks Site List

A review of the WA LUST list, as provided by EDR, has revealed that there are 12 WA LUST sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
BRYANS ONE STOP	302 W NORTH BEND WAY	I38 / 12	109
Database: LUST, Date of Government Version: 11/11/2019			
Release Date: 02/28/1992			
LUST Date: 10/24/2007			
Facility Status: LUST - Cleanup Started			
Ground Water: Confirmed Above Cleanup Levels			
Cleanup Site ID: 10507			
Soil: Confirmed Above Cleanup Levels			
Facility ID: 77989332			
CENTURYTEL NORTH BEN	131 2ND AVE E	M63 / 12	154
Database: LUST, Date of Government Version: 11/11/2019			
Release Date: 07/05/1994			
LUST Date: 10/03/2011			
Facility Status: LUST - NFA			
Cleanup Site ID: 8320			
Soil: Remediated-Below			
Facility ID: 22472173			
DNR NORTH BEND	223 E 2ND ST	T75 / 12	166
Database: LUST, Date of Government Version: 11/11/2019			

EXECUTIVE SUMMARY

Release Date: 04/16/1991
 LUST Date: 02/15/2018
 Facility Status: LUST - NFA
 Ground Water: Remediated-Below
 Cleanup Site ID: 8714
 Soil: Remediated-Below
 Facility ID: 32541339

VIRGINIA MASON MED C 248 MAIN AVE S V81 / 12 170

Database: LUST, Date of Government Version: 11/11/2019
 Release Date: 02/11/1999
 LUST Date: 11/03/1999
 Facility Status: LUST - NFA
 Ground Water: Confirmed Above Cleanup Levels
 Cleanup Site ID: 6677
 Soil: Confirmed Above Cleanup Levels
 Facility ID: 78819135

NORTH BEND SHELL 225 E NORTH BEND WAY X95 / 12 179

Database: LUST, Date of Government Version: 11/11/2019
 Release Date: 06/10/1996
 LUST Date: 02/06/2013
 Facility Status: LUST - Cleanup Started
 Ground Water: Confirmed Above Cleanup Levels
 Cleanup Site ID: 10655
 Soil: Confirmed Above Cleanup Levels
 Facility ID: 82682276

UNOCAL SERVICE STN 2 330 & 354 E NORTH BE Y107 / 12 204

Database: LUST, Date of Government Version: 11/11/2019
 Release Date: 11/12/1999
 LUST Date: 12/04/2001
 Facility Status: LUST - Cleanup Started
 Ground Water: Confirmed Above Cleanup Levels
 Ground Water: Below Cleanup Levels
 Cleanup Site ID: 6630
 Soil: Confirmed Above Cleanup Levels
 Soil: Below Cleanup Levels
 Facility ID: 75685473

NORTH BEND STP 400 NORTH BEND BLVD 114 / 12 214

Database: LUST, Date of Government Version: 11/11/2019
 Release Date: 12/21/1998
 LUST Date: 10/03/2011
 Facility Status: LUST - NFA
 Cleanup Site ID: 8964
 Soil: Remediated-Below
 Facility ID: 38121329

NORTH BEND 76 520 E NORTH BEND WAY AH141 / 12 246

Database: LUST, Date of Government Version: 11/11/2019
 Release Date: 10/02/2007
 LUST Date: 10/02/2007
 Facility Status: LUST - Awaiting Cleanup
 Ground Water: Confirmed Above Cleanup Levels
 Cleanup Site ID: 5336
 Soil: Confirmed Above Cleanup Levels
 Facility ID: 4364196

FRANK PADAVICH 1130 E NORTH BEND WA AS183 / 13 314

Database: LUST, Date of Government Version: 11/11/2019

EXECUTIVE SUMMARY

Release Date: 01/20/1999
 LUST Date: 12/02/1998
 Facility Status: LUST - Cleanup Started
 Cleanup Site ID: 5983
 Soil: Confirmed Above Cleanup Levels
 Facility ID: 37779318

SAFEWAY FUEL 1528 715 SW MT SI BLVD AU198 / 17 333

Database: LUST, Date of Government Version: 11/11/2019
 Release Date: 05/29/2007
 LUST Date: 07/01/2011
 Facility Status: LUST - Cleanup Started
 Ground Water: Confirmed Above Cleanup Levels
 Ground Water: Suspected
 Cleanup Site ID: 11075
 Soil: Remediated-Below
 Facility ID: 92656149

PUGET SOUND POWER & 44429 SE TANNER RD BL279 / 18 427

Database: LUST, Date of Government Version: 11/11/2019
 Release Date: 05/05/1995
 LUST Date: 10/03/2011
 Facility Status: LUST - NFA
 Cleanup Site ID: 10054
 Soil: Remediated-Below
 Facility ID: 65553121

MC ANDERSON TRUCKING 44711 SE NORTHBEND W 315 / 19 462

Database: LUST, Date of Government Version: 11/11/2019
 Release Date: 12/10/1990
 LUST Date: 10/03/2011
 Facility Status: LUST - NFA
 Cleanup Site ID: 8053
 Soil: Remediated-Below
 Facility ID: 14722754

State and tribal registered storage tank lists

WA UST: Underground Storage Tank Database

A review of the WA UST list, as provided by EDR, and dated 11/11/2019 has revealed that there are 23 WA UST sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND CITY OF Facility ID: 38121329 Tank Status: Removed Site Id: 10583	400 NORTHBEND BLVD N	14 / 12	86
BRYANS ONE STOP Facility ID: 77989332 Tank Status: Removed Tank Closure Date: 07/12/2010 Site Id: 8310	302 W NORTH BEND WAY	I38 / 12	109
TELEPHONE UTILITIES	131 2ND ST EAST	M49 / 12	130

EXECUTIVE SUMMARY

Facility ID: 22472173 Tank Status: Removed Site Id: 7284			
CHAPLINS NORTH BEND	106 MAIN AVE N	P61 / 12	148
Facility ID: 87445666 Tank Status: Removed Site Id: 101691			
FLOYDS COMPLETE SERV	106 E NORTH BEND WAY	Q64 / 12	156
Facility ID: 19924895 Tank Status: Removed Tank Closure Date: 10/29/2000 Tank Closure Date: 09/13/2000 Site Id: 389			
WA DNR NORTH BEND	205 BALLARET	T74 / 12	163
Facility ID: 32541339 Tank Status: Removed Site Id: 3916			
VIRGINIA MASON CLINI	248 MAIN AVE S	V82 / 12	171
Facility ID: 78819135 Tank Status: Exempt Site Id: 490589			
NORTH BEND SHELL	225 E NORTH BEND WAY	X95 / 12	179
Facility ID: 82682276 Tank Status: Operational Tank Status: Removed Site Id: 2428			
BUSY BEE STATION & C	352 E NORTH BEND WAY	Y99 / 12	191
Facility ID: 43918675 Tank Status: Removed Site Id: 101464			
UNOCAL SERVICE STN 2	330 & 354 E NORTH BE	Y107 / 12	204
Facility ID: 75685473 Tank Status: Removed Site Id: 518296			
QFC SHOPPING CENTER	470 E NORTH BEND WAY	AH124 / 12	235
Facility ID: 95994624 Tank Status: Exempt Tank Closure Date: 04/21/1995 Site Id: 496567			
NORTH BEND	215 E PARK	AE126 / 12	236
Facility ID: 11551752 Tank Status: Removed Site Id: 6878			
NORTH BEND 76	520 E NORTH BEND WAY	AH141 / 12	246
Facility ID: 4364196 Tank Status: Operational Tank Status: Removed Site Id: 8108			
MT SI SHELL	742 SW MT SI BLVD	AM161 / 12	266
Facility ID: 12657451 Tank Status: Operational			

EXECUTIVE SUMMARY

Site Id: 97659			
MT SI CHEVRON	745 SW MT SI BLVD	AN164 / 12	273
Facility ID: 44752862			
Tank Status: Operational			
Site Id: 97603			
FRANK PADAVICH	1130 E NORTH BEND WA	AS183 / 13	314
Facility ID: 37779318			
Tank Status: Removed			
Tank Closure Date: 12/02/1998			
Site Id: 100192			
SAFEWAY FUEL 1528	715 SW MT SI BLVD	AU198 / 17	333
Facility ID: 92656149			
Tank Status: Operational			
Tank Status: Removed			
Tank Closure Date: 02/16/2007			
Site Id: 476303			
NORTH BEND RANGER ST	42404 SE NORTH BEND	AZ218 / 18	371
Facility ID: 32441422			
Tank Status: Removed			
Site Id: 115			
PUGET SOUND POWER &	44429 SE TANNER RD	BL279 / 18	427
Facility ID: 65553121			
Tank Status: Removed			
Site Id: 9173			
IRON HORSE PARK	I 90 EXIT 32	BU312 / 18	460
Facility ID: 17443974			
Tank Status: Removed			
Site Id: 496557			
MC ANDERSON TRUCKING	44711 SE NORTHBEND W	315 / 19	462
Facility ID: 14722754			
Tank Status: Removed			
Site Id: 10533			
CASCADE GOLF COURSE	14303 436 AVE SE	BW326 / 18	480
Facility ID: 12124286			
Tank Status: Closure in Process			
Site Id: 8168			
TANNER ELECTRIC COOP	45710 SE NORTH BEND	CA340 / 19	519
Facility ID: 97225144			
Tank Status: Removed			
Site Id: 110			

State and tribal voluntary cleanup sites

WA VCP: Voluntary Cleanup Program Sites

A review of the WA VCP list, as provided by EDR, and dated 10/15/2019 has revealed that there are 6 WA VCP sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND COMMUNITY	126 E 4TH ST	E23 / 12	101

EXECUTIVE SUMMARY

Facility ID: 7437936 Cleanup Siteid: 2389			
RESIDENCE GREW Date NFA: 2000-03-17 VCP: NFA Facility ID: 86393988 Date NFA: 2000-03-17 VCP: NFA Cleanup Siteid: 608	349 E 3RD ST	S72 / 12	161
VIRGINIA MASON MED C Date NFA: 1999-11-03 VCP: NFA Facility ID: 78819135 Date NFA: 1999-11-03 VCP: NFA Cleanup Siteid: 6677	248 MAIN AVE S	V83 / 12	173
NORTH BEND 76 VCP: TRUE Facility ID: 4364196 VCP: TRUE Cleanup Siteid: 5336	520 E NORTH BEND WAY	AH139 / 12	243
FRANK PADAVICH Facility ID: 37779318 Cleanup Siteid: 5983	1130 E NORTH BEND WA	AS184 / 13	319
WA DOT NORTH BEND Date NFA: 2005-03-08 VCP: NFA Facility ID: 26445399 Date NFA: 2005-03-08 VCP: NFA Cleanup Siteid: 3496	45000 SE 140TH ST	BQ293 / 19	447

WA ICR: Independent Cleanup Reports

A review of the WA ICR list, as provided by EDR, and dated 12/01/2002 has revealed that there are 10 WA ICR sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND COMMUNITY Contaminants Found at Site: 6 Type of Report Ecology Received: I Date Ecology Received Report: 02/09/99 Date Ecology Received Report: 05/10/00 Media Contaminated: S Media Contaminated: GW,S	126 E. 4TH	E28 / 12	103
CHEVRON - NORTH BEND Contaminants Found at Site: 6 Type of Report Ecology Received: I Date Ecology Received Report: 03/20/92 Media Contaminated: S	302 NORTH BEND WAY	41 / 12	117
PACIFIC TELECOM	131 2ND ST. E.	M50 / 12	131

EXECUTIVE SUMMARY

Contaminants Found at Site: 6 Type of Report Ecology Received: I Date Ecology Received Report: 09/12/94 Media Contaminated: S			
RESIDENCE	349 E. 3RD ST.	S71 / 12	161
Contaminants Found at Site: 6 Type of Report Ecology Received: I Date Ecology Received Report: 11/21/97 Media Contaminated: GW,S			
DEPARTMENT OF NATURA	223 E. 2ND ST.	T76 / 12	168
Contaminants Found at Site: 6 Type of Report Ecology Received: I Date Ecology Received Report: 12/04/91 Media Contaminated: S			
VIRGINIA MASON CLINI	248 MAIN AVE S	V82 / 12	171
Contaminants Found at Site: 6 Type of Report Ecology Received: I Type of Report Ecology Received: F Date Ecology Received Report: 09/30/99 Date Ecology Received Report: 11/03/99 Media Contaminated: GW,S			
TEXACO	225 E. NORTH BEND WA	X93 / 12	177
Contaminants Found at Site: 6 Type of Report Ecology Received: I Date Ecology Received Report: 09/10/98 Date Ecology Received Report: 11/12/96 Media Contaminated: GW,S			
ROWLEY ENTERPRISE/ M	43321 MT. SI ROAD SE	BB222 / 18	376
Contaminants Found at Site: 6 Type of Report Ecology Received: I Date Ecology Received Report: 11/19/90 Media Contaminated: SED,GW			
PUGET SOUND POWER &	44429 SE TANNER RD	BL279 / 18	427
Contaminants Found at Site: 6 Type of Report Ecology Received: F Date Ecology Received Report: 10/28/02 Media Contaminated: S			
M.C. ANDERSON TRUCKI	44700 NORTH BEND WAY	BT304 / 19	454
Contaminants Found at Site: 6 Type of Report Ecology Received: I Date Ecology Received Report: 02/21/91 Date Ecology Received Report: 09/30/91 Media Contaminated: S			

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

A review of the US BROWNFIELDS list, as provided by EDR, and dated 06/03/2019 has revealed that there

EXECUTIVE SUMMARY

are 2 US BROWNFIELDS sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
DINGFORD CREEK TRAIL ACRES property ID: 16059	NEAR DINGFORD CREEK	Y100 / 12	195
NEAR 11.7 MILE OF E ACRES property ID: 20541	NEAR 11.7 MILE OF E	228 / 17	380

Local Lists of Landfill / Solid Waste Disposal Sites

WA SWRCY: Recycling Facility List

A review of the WA SWRCY list, as provided by EDR, and dated 07/23/2019 has revealed that there are 3 WA SWRCY sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
LIGHTRECYCLE WASHING	248 BENDIGO BOULEVAR	W88 / 12	175
KING COUNTY SECURE M	460 E NORTH BEND WAY	102 / 12	198
LIGHTRECYCLE WASHING	330 MAIN AVE. S	116 / 12	221

Local Lists of Hazardous waste / Contaminated Sites

WA ALLSITES: Facility/Site Identification System Listing

A review of the WA ALLSITES list, as provided by EDR, and dated 10/29/2019 has revealed that there are 97 WA ALLSITES sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
SHAKE MILL LEFT BANK Facility Id: 90753	8716 428TH AVE SE	B3 / 8	74
KING CNTY NORTH FORK Facility Id: 63635197	T24N R83 S34	B4 / 8	74
NORTH BEND WASTEWATE Facility Id: 56772	400 BENDIGO BLVD N	C13 / 12	85
NORTH BEND WWTP Facility Id: 21911	400 BENDIGO	15 / 12	88
ULID NO 6 PUMP STATI Facility Id: 18666	356 BENDIGO BLVD N	D18 / 12	89
NORTH BEND COMMUNITY Facility Id: 7437936	126 E 4TH	E24 / 12	101
OLYMPUS JOB 91 3593 Facility Id: 13322851	S SIDE 101ST ST 1 BL	H32 / 12	106
BRYANS ONE STOP Facility Id: 77989332	302 W NORTH BEND WAY	I38 / 12	109
KING CNTY DOT 428TH Facility Id: 8942198	428TH AVE SE CROSSIN	J42 / 12	117
WA DOT BRG 202/066	MP 29.50-29.59	L48 / 12	128

EXECUTIVE SUMMARY

Facility Id: 4130071			
PLAT OF RIVER GLEN	PICKETT AVE	N51 / 13	131
Facility Id: 17798			
TOLLGATE FARM PARK	N BEND WAY & BENDIGO	O53 / 12	132
Facility Id: 15915			
CHAPLINS NORTH BEND	106 MAIN AVE N	P61 / 12	148
Facility Id: 6719324			
Facility Id: 87445666			
CENTURYTEL NORTH BEN	131 2ND AVE E	M63 / 12	154
Facility Id: 22472173			
Facility Id: 31962197			
FLOYDS COMPLETE SERV	106 E NORTH BEND WAY	Q64 / 12	156
Facility Id: 19924895			
RESIDENCE GREW	349 E 3RD ST	S70 / 12	160
Facility Id: 86393988			
WA DNR NORTH BEND	205 BALLARET	T74 / 12	163
Facility Id: 32541339			
VIRGINIA MASON MED C	248 MAIN AVE S	V81 / 12	170
Facility Id: 78819135			
LIGHTRECYCLE WASHING	248 BENDIGO BOULEVAR	W88 / 12	175
Facility Id: 4754			
NORTH BEND SHELL	225 E NORTH BEND WAY	X95 / 12	179
Facility Id: 82682276			
BUSY BEE STATION & C	352 E NORTH BEND WAY	Y99 / 12	191
Facility Id: 43918675			
KING CNTY DEEP CREEK	FURY LAKE RD 7.5 MI	Z101 / 12	198
Facility Id: 72714486			
RIVER GLEN	814 NE 3RD STREET	AA105 / 13	203
Facility Id: 20499			
UNOCAL SERVICE STN 2	330 & 354 E NORTH BE	Y107 / 12	204
Facility Id: 75685473			
NORTH BEND DRY CLEAN	400 E NORTH BEND WAY	AC110 / 12	212
Facility Id: 19591			
NORTH BEND STP	400 NORTH BEND BLVD	114 / 12	214
Facility Id: 38121329			
QFC SHOPPING CENTER	470 E NORTH BEND WAY	AH124 / 12	235
Facility Id: 95994624			
NORTH BEND	215 E PARK	AE127 / 12	238
Facility Id: 11551752			
CITY OF NORTH BEND N	NE 3RD ST	AI130 / 13	240
Facility Id: 945			
NORTH BEND 76	520 E NORTH BEND WAY	AH141 / 12	246
Facility Id: 4364196			
PHOENIX PLAZA	530 E NORTH BEND WAY	AJ144 / 12	254
Facility Id: 88757			
RANGER STATION COTTA	SEC 424TH AVE SE & S	148 / 12	257
Facility Id: 14309			
ORCHARD PLACE APARTM	240 SE ORCHARD DR	AK151 / 12	259

EXECUTIVE SUMMARY

Facility Id: 28903			
NORTH BEND GARDINER	400 S FORK AVE SW	AL154 / 12	260
Facility Id: 7504025			
NINTENDO DISTRIBUTIO	401 S FORK AVE SW	AL155 / 12	261
Facility Id: 8471			
SI VIEW PARK AND POO	400 SE ORCHARD DR	157 / 12	262
Facility Id: 64517196			
MT SI SHELL	742 SW MT SI BLVD	AM161 / 12	266
Facility Id: 12657451			
MT SI CHEVRON	745 SW MT SI BLVD	AN164 / 12	273
Facility Id: 44752862			
SCHUCKS AUTO SUPPLY	400 SW MOUNT SI BLVD	AO167 / 12	279
Facility Id: 20294			
WA DOT CAMP MASON US	SR I90 MP 42.29	AP170 / 12	280
Facility Id: 66991352			
FIRE STATION 87	500 MALONEY GROVE AV	AQ172 / 12	283
Facility Id: 10951			
MICHAELS FINE DRY CL	458 SW MT SI BLVD	AR174 / 12	284
Facility Id: 17806			
SI VIEW ESTATES 28 L	1045 MALONEY GROVE A	AQ177 / 12	286
Facility Id: 7578			
NORTH BEND AUTO PART	1120 E NORTH BEND WA	AS179 / 13	287
Facility Id: 25439352			
KING CNTY DOT MOUNT	43600 MOUNT SI RD	AT181 / 13	307
Facility Id: 7159756			
FRANK PADAVICH	1130 E NORTH BEND WA	AS183 / 13	314
Facility Id: 37779318			
SAFEWAY STORE 1528	460 SW MT SI BLVD	AV194 / 12	323
Facility Id: 3485			
MOUNTAIN VIEW ESTATE		197 / 17	333
Facility Id: 1577180			
SAFEWAY FUEL 1528	715 SW MT SI BLVD	AU198 / 17	333
Facility Id: 92656149			
MT SI BRIDGE 2550A		204 / 18	344
Facility Id: 93611			
NORTH BEND CITY	1155 E NORTH BEND WA	207 / 18	355
Facility Id: 71090			
Facility Id: 5666768			
VECTOR CONSTRUCTION	12540 412TH AVE SE	AX208 / 17	365
Facility Id: 10025			
MALONEY GROVE 9 LOT	701 MALONEY GROVE AV	AY211 / 17	366
Facility Id: 15084			
SMITTYS INC	1410 E NORTH BEND WA	AZ213 / 18	368
Facility Id: 11055			
SNOQUALMIE VALLEY AP	42700 SE NORTH BEND	AZ215 / 18	369
Facility Id: 4672			
NORTH BEND RANGER ST	42404 SE NORTH BEND	AZ218 / 18	371

EXECUTIVE SUMMARY

Facility Id: 32441422			
MALONEY GROVE 13	710 MALONEY GROVE AV	BA220 / 17	373
Facility Id: 4987			
ROWLEY ENTERPRISES M	43321 MT SI RD SE	BB223 / 18	376
Facility Id: 2305			
CEDAR FALLS DEVELOPM	INTER OF 424TH AVE S	BC230 / 17	383
Facility Id: 9844			
LEVEL 3 COMMUNICATIO	43411 SE NORTH BEND	231 / 18	384
Facility Id: 9011069			
APPLIED PROFESSIONAL	43530 SE NORTH BEND	BD236 / 18	390
Facility Id: 15772			
NORTH BEND COTTAGES		BE237 / 18	390
Facility Id: 15681			
DUMP SITE	444TH AVE SE	239 / 18	391
Facility Id: 12463			
CEDAR FALLS SOUTH	13303 427TH AVE SE	240 / 18	392
Facility Id: 9188			
BPA NORTH BEND RADIO	END OF RATTLESNAKE M	BG247 / 18	401
Facility Id: 23996			
PSE RATTLESNAKE MT M	1441 389TH AVE SE	BG248 / 18	402
Facility Id: 49247823			
AT&T WA0330 RTGWAQ35	RATTLESNAKE LEDGE RR	BG249 / 18	402
Facility Id: 33971595			
AT&T NORTHBEND WA524	53000 SE FROUSE RIDG	BG250 / 18	403
Facility Id: 44895196			
TANNER ROAD SUBDIVIS		251 / 19	404
Facility Id: 7047			
SUN RISE VIEW	42621 SE 134TH PL	BI259 / 18	409
Facility Id: 72303			
CHINOOK LUMBER	436TH AVE SE CEDAR F	261 / 18	410
Facility Id: 17491			
CEDAR RIVER PARTNERS	44124 SE NORTH BEND	265 / 18	417
Facility Id: 69013			
RIVER RUN	43600 SE 136TH STREE	BK268 / 18	422
Facility Id: 30375			
Facility Id: 77447			
PUGET SOUND POWER &	44429 SE TANNER RD	BL279 / 18	427
Facility Id: 65553121			
MINERS RIDGE 24 LOT	13607 461ST AVE SE	BM281 / 19	434
Facility Id: 8083			
CEDAR LANDING PHASES		BN284 / 18	436
Facility Id: 20099			
TANNERWOOD	SE 140	BO287 / 19	443
Facility Id: 7507			
ULID NO 6 SEWER PIPE	468TH AVE	290 / 19	445
Facility Id: 12559			
MAS RESOURCES INC JO	TANNER RD	BP291 / 19	445

EXECUTIVE SUMMARY

Facility Id: 759689			
TANNER FALLS RECLAMA	SE 140TH ST WEST OF	292 / 19	446
Facility Id: 13623			
WA DOT NORTH BEND	45000 SE 140TH ST	BQ294 / 19	447
Facility Id: 26445399			
AT&T WIRELESS TANNER	16550 487TH AVE SE	296 / 18	449
Facility Id: 8479624			
TANNERWOOD A	SE 140TH ST AND 453N	BR297 / 19	450
Facility Id: 8564			
CHAMPION INTERNATIONAL	200 FT S OF MIDDLE F	BT305 / 19	454
Facility Id: 79177226			
IRON HORSE PARK	I90 EXIT 32	BU313 / 18	461
Facility Id: 17443974			
MC ANDERSON TRUCKING	44711 SE NORTHBEND W	315 / 19	462
Facility Id: 14722754			
ESTATE OF DANIEL H C	45120 SE NORTH BEND	BV318 / 19	468
Facility Id: 11385314			
TANNER HEADQUARTERS		321 / 19	475
Facility Id: 94293			
I90 CORPORATE PARK	46501 & 46511 SE NOR	322 / 20	475
Facility Id: 8801624			
SNOQUALMIE VALLEY SC	46837 SE MIDDLE FORK	323 / 20	476
Facility Id: 88692836			
CASCADE GOLF COURSE	14303 436 AVE SE	BW326 / 18	480
Facility Id: 12124286			
EM MATSON JR CO INC	45620 SE NORTH BEND	BX328 / 19	481
Facility Id: 798308			
TANNER ELECTRIC COOP	45710 SE NORTH BEND	CA340 / 19	519
Facility Id: 97225144			
PETROCARD INC NORTH	14220 468TH PL SE	CB347 / 20	526
Facility Id: 16843			
EASTBOUND INTERSTATE	EB I90 MP 33	349 / 19	527
Facility Id: 8343			
CASCADE DIESEL TRUCK	45830 SE NORTH BEND	CC351 / 19	527
Facility Id: 24812			
I90 NORTH BEND CORPO	SE NORTH BEND WAY	CD354 / 20	530
Facility Id: 12617			

WA HIST CDL: List of Sites Contaminated by Clandestine Drug Labs

A review of the WA HIST CDL list, as provided by EDR, and dated 02/08/2007 has revealed that there is 1 WA HIST CDL site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
UNKNOWN	8621 436TH PL SE	A2 / 8	73
Facility ID: 21076			

EXECUTIVE SUMMARY

WA CSCSL NFA: Confirmed & Contaminated Sites - No Further Action

A review of the WA CSCSL NFA list, as provided by EDR, and dated 10/15/2019 has revealed that there are 10 WA CSCSL NFA sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
CENTURYTEL NORTH BEN CS Id: 8320 Facility/Site Id: 22472173 Soil: Remediated-Below NFA Date: 10/03/2011 Contaminant Name: Petroleum-Diesel	131 2ND AVE E	M63 / 12	154
RESIDENCE GREW CS Id: 608 Facility/Site Id: 86393988 Soil: Remediated NFA Date: 03/17/2000 Contaminant Name: Petroleum Products-Unspecified	349 E 3RD ST	S70 / 12	160
WA DNR NORTH BEND CS Id: 8714 Facility/Site Id: 32541339 Soil: Remediated-Below NFA Date: 02/15/2018 Groundwater: Remediated-Below Contaminant Name: Benzene Contaminant Name: Petroleum-Diesel Contaminant Name: Petroleum-Gasoline Contaminant Name: Petroleum-Other	205 BALLARET	T74 / 12	163
VIRGINIA MASON MED C CS Id: 6677 Facility/Site Id: 78819135 Soil: Confirmed Above Cleanup Levels NFA Date: 11/03/1999 Groundwater: Confirmed Above Cleanup Levels Contaminant Name: Petroleum-Other	248 MAIN AVE S	V81 / 12	170
NORTH BEND STP CS Id: 8964 Facility/Site Id: 38121329 Soil: Remediated-Below NFA Date: 10/03/2011 Contaminant Name: Petroleum-Diesel Contaminant Name: Petroleum-Other	400 NORTH BEND BLVD	114 / 12	214
ROWLEY ENTERPRISES M CS Id: 1609 Facility/Site Id: 2305 Soil: Suspected Soil: Remediated NFA Date: 03/27/1992 Groundwater: Suspected Groundwater: Remediated Contaminant Name: Halogenated Organics Contaminant Name: Metals Priority Pollutants Contaminant Name: Non-Halogenated Solvents Contaminant Name: Petroleum Products-Unspecified	43321 MT SI RD SE	BB223 / 18	376
PUGET SOUND POWER &	44429 SE TANNER RD	BL279 / 18	427

EXECUTIVE SUMMARY

CS Id: 10054
 Facility/Site Id: 65553121
 Soil: Remediated-Below
 NFA Date: 10/03/2011
 Contaminant Name: Benzene
 Contaminant Name: Metals - Other
 Contaminant Name: Petroleum-Diesel
 Contaminant Name: Petroleum-Gasoline
 Contaminant Name: Petroleum-Other

WA DOT NORTH BEND	45000 SE 140TH ST	BQ294 / 19	447
CS Id: 3496 Facility/Site Id: 26445399 Soil: Remediated NFA Date: 03/08/2005 Contaminant Name: Metals Priority Pollutants Contaminant Name: Petroleum Products-Unspecified			
MC ANDERSON TRUCKING	44711 SE NORTHBEND W	315 / 19	462
CS Id: 8053 Facility/Site Id: 14722754 Soil: Remediated-Below NFA Date: 10/03/2011 Contaminant Name: Petroleum-Diesel Contaminant Name: Petroleum-Other			
190 CORPORATE PARK	46501 & 46511 SE NOR	322 / 20	475
CS Id: 3381 Facility/Site Id: 8801624 Soil: Remediated-Below NFA Date: 08/26/2008 Contaminant Name: Petroleum Products-Unspecified			

Records of Emergency Release Reports

WA SPILLS: Reported Spills

A review of the WA SPILLS list, as provided by EDR, and dated 12/05/2019 has revealed that there are 33 WA SPILLS sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
UNKNOWN Facility ID: 520698	8621 436TH PL SE - S	A1 / 8	73
UNKNOWN Facility ID: 516273	8621 436TH PL SE	A2 / 8	73
PREVIOUS OWNER Facility ID: 425909	43404 SE 92ND ST.	6 / 8	77
Not reported Facility ID: 86110	NORTH BEND TREATMENT	C10 / 12	83
Not reported Facility ID: 621448	106 E 6TH ST	16 / 12	88
Not reported	NORTH BEND BAR & GRI	U86 / 12	174

EXECUTIVE SUMMARY

Facility ID: 96778			
Not reported		91 / 12	176
Facility ID: 85327			
METRO TRANSIT	MAIN AVE. SO. & EAST	98 / 12	191
Facility ID: 611561			
PSE	312 E PARK ST	AB109 / 12	212
Facility ID: 644691			
Not reported	468 E NORTHBEND WAY	AG122 / 12	233
Facility ID: 601100			
NEIGHBORING GAS STAT	468 E NORTH BEND WY	AG123 / 12	233
Facility ID: 601100			
Not reported	76 GAS STATION	AH132 / 12	241
Facility ID: 94320			
Not reported	520 E NORTHBEND WY	AH137 / 12	243
Facility ID: 648333			
NORTH BEND 76	468 - 482 E NORTH BE	AJ142 / 12	253
Facility ID: 601100			
Not reported	209 THRASHER AVE	143 / 12	254
Facility ID: 530501			
Not reported	424 HEALY AVE S	149 / 12	258
Facility ID: 534651			
APARTMENT MANAGER	MAIN AVE S & STOW AV	150 / 12	259
Facility ID: 516192			
Not reported	1525 ROCK CREEK RIDG	178 / 11	286
Facility ID: 643980			
GAS STATION	721 SW MT SI BLVD	AU189 / 12	321
Facility ID: 512554			
SAFEWAY	715 W MOUNT SI BLVD	AU200 / 17	343
Facility ID: 617582			
Facility ID: 614626			
Not reported		225 / 19	378
Facility ID: 94245			
Not reported		226 / 19	379
Facility ID: 91432			
Not reported	CEDAR FALLS WAY	BE242 / 18	396
Facility ID: 99891			
ALLIED BLDG SUPPLIES	43516 SE 136TH ST	BK267 / 18	422
Facility ID: 550140			
Not reported	13739 436TH AVE SE	289 / 18	444
Facility ID: 642978			
NW CASCADES INC	13805 457TH AVE SE	299 / 19	451
Facility ID: 619178			
Not reported	457TH AVE S	310 / 19	458
Facility ID: 105017			
Not reported	I-90 WESTBOUND MILEP	314 / 19	462
Facility ID: 89066			
Not reported		319 / 18	474

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Facility ID: 91696			
PSE	44504 SE 142ND ST	320 / 19	475
Facility ID: 613789			
PSE	43816 SE 143RD ST	327 / 18	481
Facility ID: 616707			
RESIDENT	45810 SE NORTH BEND	BY336 / 19	518
Facility ID: 531461			
FELON	45810 SE NORTHBEND W	BY337 / 19	518
Facility ID: 500748			

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/16/2019 has revealed that there are 13 RCRA NonGen / NLR sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
KING CNTY NORTH FORK EPA ID:: WAR000008532	T24N R83 S34	B4 / 8	74
KING CNTY DOT 428TH EPA ID:: WAH000024120	428TH AVE SE CROSSIN	J42 / 12	117
CHAPLINS NORTH BEND EPA ID:: WAD988493862	106 MAIN AVE N	P61 / 12	148
NORTH BEND STP EPA ID:: WAR000000166	400 NORTH BEND BLVD	114 / 12	214
WA DOT CAMP MASON US EPA ID:: WAD988467767	SR I90 MP 42.29	AP170 / 12	280
KING CNTY DOT MOUNT EPA ID:: WAH000033348	43600 MOUNT SI RD	AT182 / 13	312
NORTH BEND CITY EPA ID:: WAH000022826	1155 E NORTH BEND WA	207 / 18	355
APPLIED PROFESSIONAL EPA ID:: WAH000051652	43530 SE NORTH BEND	BD233 / 18	385
CHAMPION INTERNATIONAL EPA ID:: WA0000928291	200 FT S OF MIDDLE F	BT309 / 19	456
ESTATE OF DANIEL H C EPA ID:: WAR000008474	45120 SE NORTH BEND	BV318 / 19	468
SNOQUALMIE VALLEY SC EPA ID:: WAD988513859	46837 SE MIDDLE FORK	323 / 20	476
MATSON LLC DIV OF CE EPA ID:: WAH000044444	45620 SE NORTH BEND	BX333 / 19	508
TANNER ELECTRIC COOP EPA ID:: WAD010206597	45710 SE NORTH BEND	CA344 / 19	522

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SSTS: Section 7 Tracking Systems

A review of the SSTS list, as provided by EDR, and dated 05/01/2019 has revealed that there are 4 SSTS sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
MATSON, LLC Registration Number:: 008119-WA-001	45620 SE N BND WAY	BX330 / 19	486
E. M. MATSON JR CO., Registration Number:: 008119WA 001	45620 S.E. N BEND WA	BX331 / 19	493
E.M. MATSON, JR. CO. Registration Number:: 008119WA 001 Registration Number:: 008119WA001	45620 S.E. N BEND WA	BX332 / 19	494
MATSON, LLC Registration Number:: 008119-WA-001 Registration Number:: 008119WA001	45620 S.E. N BEND WA	BX334 / 19	510

ICIS: Integrated Compliance Information System

A review of the ICIS list, as provided by EDR, and dated 11/18/2016 has revealed that there is 1 ICIS site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
MATSON, LLC FRS ID:: 110015737862	45620 SE N BEND WAY	BX329 / 19	484

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A review of the FTTS list, as provided by EDR, has revealed that there are 5 FTTS sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND CY OF Database: FTTS INSP, Date of Government Version: 04/09/2009	211 MAIN AV N	K44 / 12	120
SALLAL WATER ASSOC Database: FTTS INSP, Date of Government Version: 04/09/2009	107 MAIN AVE N	P57 / 12	140
EM MATSON JR CO INC Database: FTTS INSP, Date of Government Version: 04/09/2009	45620 SE NORTH BEND	BX328 / 19	481
TANNER ELECTRIC COOP Database: FTTS, Date of Government Version: 04/09/2009 Docket Number:: 1088-08-28-2615 Close Date:: / /	45710 SE N BEND HWY	CA341 / 19	521
TANNER ELECTRIC COOP Database: FTTS INSP, Date of Government Version: 04/09/2009	45710 SE NORTH BEND	CA345 / 19	525

EXECUTIVE SUMMARY

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A review of the HIST FTTS list, as provided by EDR, has revealed that there are 5 HIST FTTS sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND CY OF	211 MAIN AV N	K45 / 12	120
Database: HIST FTTS INSP, Date of Government Version: 10/19/2006			
SALLAL WATER ASSOC	107 MAIN AVE N	P57 / 12	140
Database: HIST FTTS INSP, Date of Government Version: 10/19/2006			
EM MATSON JR CO INC	45620 SE NORTH BEND	BX328 / 19	481
Database: HIST FTTS INSP, Date of Government Version: 10/19/2006			
TANNER ELECTRIC COOP	45710 SE NORTH BEND	CA342 / 19	521
Database: HIST FTTS INSP, Date of Government Version: 10/19/2006			
TANNER ELECTRIC COOP	45710 SE N BEND HWY	CA343 / 19	522
Database: HIST FTTS, Date of Government Version: 10/19/2006			
Close Date:: / /			
Docket Number:: 1088-08-28-2615			

US MINES: Mines Master Index File

A review of the US MINES list, as provided by EDR, has revealed that there are 2 US MINES sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
3 LAKES QUARRY	43909 SE TANNER RD	BJ264 / 18	414
Database: MINES VIOLATIONS, Date of Government Version: 12/03/2019			
FURY SITE WORKS INC		BS301 / 19	452
Database: US MINES, Date of Government Version: 11/06/2019			
Mine ID:: 4503732			

ABANDONED MINES: Abandoned Mines

A review of the ABANDONED MINES list, as provided by EDR, and dated 12/09/2019 has revealed that there are 2 ABANDONED MINES sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
3 LAKES QUARRY	43909 SE TANNER RD	BJ263 / 18	414
TANNER FALLS	45100 NE 140TH SE	BS302 / 19	453

FINDS: Facility Index System/Facility Registry System

A review of the FINDS list, as provided by EDR, and dated 11/22/2019 has revealed that there are 86 FINDS sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
KING CNTY NORTH FORK	T24N R83 S34	B5 / 8	77
Registry ID:: 110008227846			
NORTH BEND STP	400 BENDIGO BLVD N	C12 / 12	84

EXECUTIVE SUMMARY

Registry ID:: 110006684882			
ULID NO.6 PUMP STATION	356 BENDIGO BLVD N	D17 / 12	89
Registry ID:: 110040626356			
PARK AND RIDE & STREET	NORTH BEND WAY SYDNEY	21 / 12	98
Registry ID:: 110043825509			
NORTH BEND COMMUNITY	126 E 4TH	E24 / 12	101
Registry ID:: 110015539522			
OLYMPUS JOB 91 3593	S SIDE 101ST ST 1 BL	H33 / 12	106
Registry ID:: 110008223617			
BRYANS ONE STOP	302 W NORTH BEND WAY	I38 / 12	109
Registry ID:: 110015417912			
KING CNTY DOT 428TH	ON 428TH AVE SE CROSS	J43 / 12	119
Registry ID:: 110017939506			
WA DOT BRG 202/066	MP 29.50-29.59	J47 / 12	128
Registry ID:: 110035443179			
LOVELAND CHEVROLET	106 MAIN ST	P58 / 12	141
Registry ID:: 110015403017			
TELEPHONE UTILITIES	131 2ND ST E	M59 / 12	141
Registry ID:: 110015509154			
CHAPLINS NORTH BEND	106 MAIN AVE N	P61 / 12	148
Registry ID:: 110005366460			
WA DNR NORTH BEND	205 BALLARET	62 / 12	153
Registry ID:: 110015492947			
CENTURYTEL NORTH BEND	131 2ND AVE E	M63 / 12	154
Registry ID:: 110015493820			
FLOYDS COMPLETE SERVICE	106 E NORTH BEND WAY	Q65 / 12	158
Registry ID:: 110015512266			
RESIDENCE GREW	349 E 3RD ST	S70 / 12	160
Registry ID:: 110015404604			
VIRGINIA MASON MEDICAL	248 MAIN AVE S	V84 / 12	173
Registry ID:: 110015416717			
J.O. BORGES PLAZA	248 BENDIGO BLVD S	W87 / 12	174
Registry ID:: 110054937404			
NORTH BEND TEXACO	225 E NORTH BEND WAY	X96 / 12	190
Registry ID:: 110015411543			
BUSY BEE STATION & C	352 E NORTH BEND WAY	Y99 / 12	191
Registry ID:: 110015473281			
DINGFORD CREEK TRAIL	NEAR DINGFORD CREEK	Y100 / 12	195
Registry ID:: 110060673739			
KING CNTY DEEP CREEK	FURY LAKE RD 7.5 MI	Z103 / 12	202
Registry ID:: 110008227258			
RIVER GLEN	814 NE 3RD STREET	AA106 / 13	203
Registry ID:: 110064389638			
UNOCAL SERVICE STN 2	330 & 354 E NORTH BEND	Y107 / 12	204
Registry ID:: 110015421881			
NORTH BEND DRY CLEAN	400 E NORTH BEND WAY	AC112 / 12	213

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Registry ID:: 110040317485			
QFC SHOPPING CENTER	470 E NORTH BEND WAY	AH125 / 12	236
Registry ID:: 110015388999			
NORTH BEND	215 E PARK	AE127 / 12	238
Registry ID:: 110015527553			
RANGER STATION COTTA	SEC 424TH AVE SE & S	131 / 13	240
Registry ID:: 110066841868			
NORTH BEND 76	520 E NORTH BEND WAY	AH141 / 12	246
Registry ID:: 110015551678			
PHOENIX PLAZA	530 E NORTH BEND WAY	AJ146 / 12	257
Registry ID:: 110070229416			
ORCHARD PLACE APARTM	240 SE ORCHARD DR	AK153 / 12	260
Registry ID:: 110070237111			
NORTH BEND GARDINER	400 S FORK AVE SW	AL154 / 12	260
Registry ID:: 110036136730			
NINTENDO DISTRIBUTIO	401 S FORK AVE SW	AL156 / 12	262
Registry ID:: 110056480384			
SI VIEW PARK AND POO	400 SE ORCHARD DR	157 / 12	262
Registry ID:: 110015439140			
GEORGE G WYRSCH	742 SW MT SI BLVD	AM159 / 12	265
Registry ID:: 110015525528			
G & S SERVICES	745 SW MT SI BLVD	AN165 / 12	277
Registry ID:: 110015471719			
SCHUCKS AUTO SUPPLY	400 SW MOUNT SI BLVD	AO168 / 12	279
Registry ID:: 110039225415			
WA DOT CAMP MASON US	SR I90 MP 42.29	AP169 / 12	279
Registry ID:: 110006138928			
FIRE STATION 87	500 MALONEY GROVE AV	AQ171 / 12	283
Registry ID:: 110046591540			
MICHAELS FINE DRY CL	458 SW MT SI BLVD	AR175 / 12	285
Registry ID:: 110040759186			
SI VIEW ESTATES 28 L	1045 MALONEY GROVE A	AQ176 / 12	285
Registry ID:: 110055371119			
NORTH BEND AUTO PART	1120 E NORTH BEND WA	AS179 / 13	287
Registry ID:: 110005397070			
KING CNTY DOT MOUNT	43600 MOUNT SI RD	AT181 / 13	307
Registry ID:: 110037223000			
FRANK PADAVICH	1130 E NORTH BEND WA	AS186 / 13	320
Registry ID:: 110015483154			
SAFEWAY FUEL 1528	721 SW MT SI BLVD	AU191 / 12	322
Registry ID:: 110015395204			
SAFEWAY STORE 1528	460 SW MT SI BLVD	AV195 / 12	330
Registry ID:: 110058229670			
NORTH BEND CITY	1155 E NORTH BEND WA	207 / 18	355
Registry ID:: 110070226846			
Registry ID:: 110064679879			
VECTOR CONSTRUCTION	12540 412TH AVE SE	AX209 / 17	365

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Registry ID:: 110043882064			
MALONEY GROVE 9 LOT	701 MALONEY GROVE AV	AY212 / 17	368
Registry ID:: 110055371146			
SMITTYS INC	1410 E NORTH BEND WA	AZ214 / 18	369
Registry ID:: 110040127519			
42404 SE NORTH BEND	42404 SE NORTH BEND	AZ216 / 18	370
Registry ID:: 110020781607			
Registry ID:: 110015493036			
SNOQUALMIE VALLEY AP	42700 SE NORTH BEND	AZ219 / 18	373
Registry ID:: 110056478565			
MALONEY GROVE 13	710 MALONEY GROVE AV	BA221 / 17	375
Registry ID:: 110064653888			
ROWLEY ENTERPRISES M	43321 MT SI RD SE	BB224 / 18	378
Registry ID:: 110015572904			
GRANITE LAKES QUARRY	MIDDLE FORK RD & GRA	227 / 18	379
Registry ID:: 110013672374			
NEAR 11.7 MILE OF E	NEAR 11.7 MILE OF E	228 / 17	380
Registry ID:: 110060678510			
CEDAR FALLS DEVELOPM	INTER OF 424TH AVE S	BC229 / 17	383
Registry ID:: 110054911333			
LEVEL 3 COMMUNICATIO	43411 SE NORTH BEND	231 / 18	384
Registry ID:: 110022935127			
APPLIED PROFESSIONAL	43530 SE NORTH BEND	BD235 / 18	389
Registry ID:: 110069632712			
NORTH BEND COTTAGES	UNSPECIFIED	BE238 / 18	391
Registry ID:: 110067183559			
CEDAR RIVER PARTNERS	44124 SE NORTH BEND	243 / 18	396
Registry ID:: 110070554524			
PSE RATTLESNAKE MT M	1441 389TH AVE SE	BG248 / 18	402
Registry ID:: 110015464013			
AT&T WA0330 RTGWAQ35	RATTLESNAKE LEDGE RR	BG249 / 18	402
Registry ID:: 110015490182			
AT&T NORTHBEND WA524	53000 SE FROUSE RIDG	BG250 / 18	403
Registry ID:: 110015471158			
SUN RISE VIEW	42621 SE 134TH PL	BI257 / 18	406
Registry ID:: 110070501604			
PUGET SOUND POWER &	44429 SE TANNER RD	BL276 / 18	426
Registry ID:: 110015437598			
MINERS RIDGE 24 LOT	13607 461ST AVE SE	BM282 / 19	434
Registry ID:: 110059660228			
TANNER FALLS RECLAMA	SE 140TH ST WESTERLY	BO285 / 19	437
Registry ID:: 110058230347			
MAS RESOURCES INC JO	TANNER RD	BP291 / 19	445
Registry ID:: 110015565681			
WA DOT NORTH BEND	45000 SE 140TH ST	BQ294 / 19	447
Registry ID:: 110015501900			
AT&T WIRELESS TANNER	16550 487TH AVE SE	296 / 18	449

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Registry ID:: 110022930300			
TANNERWOOD	SE 140	BR298 / 19	451
Registry ID:: 110040626793			
CEDAR LANDING PHASES	UNSPECIFIED	300 / 18	452
Registry ID:: 110070080669			
MC ANDERSON TRUCKING	44711 SE NORTHBEND W	BT306 / 19	455
Registry ID:: 110015521577			
CHAMPION INTERNATIONAL	200 FT S OF MIDDLE F	BT309 / 19	456
Registry ID:: 110008214495			
IRON HORSE PARK	I90 EXIT 32	BU313 / 18	461
Registry ID:: 110015516743			
ESTATE OF DANIEL H C	45120 SE NORTH BEND	BV318 / 19	468
Registry ID:: 110005404400			
I90 CORPORATE PARK	46501 & 46511 SE NOR	322 / 20	475
Registry ID:: 110036139862			
SNOQUALMIE VALLEY SC	46837 SE MIDDLE FORK	323 / 20	476
Registry ID:: 110005380792			
CASCADE GOLF COURSE	14303 436 AVE SE	BW325 / 18	479
Registry ID:: 110015526661			
MATSON, LLC	45620 SE N BEND WAY	BX329 / 19	484
Registry ID:: 110015737862			
NOR WEST MOBILE HOME	45810 SE NORTH BEND	BY335 / 19	517
Registry ID:: 110013064708			
TANNER ELECTRIC COOP	45710 SE NORTH BEND	CA344 / 19	522
Registry ID:: 110000827767			
PETROCARD INC NORTH	14220 468TH PL SE	CB348 / 20	526
Registry ID:: 110056453314			
CASCADE DIESEL TRUCK	45830 SE NORTH BEND	CC350 / 19	527
Registry ID:: 110056464339			
I90 NORTH BEND CORPO	SE NORTH BEND WAY	CD353 / 20	530
Registry ID:: 110054615617			

ECHO: Enforcement & Compliance History Information

A review of the ECHO list, as provided by EDR, and dated 10/06/2019 has revealed that there are 39 ECHO sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
KING CNTY NORTH FORK	T24N R83 S34	B5 / 8	77
Registry ID: 110008227846			
NORTH BEND STP	400 BENDIGO BLVD N	C12 / 12	84
Registry ID: 110006684882			
ULID NO.6 PUMP STATI	356 BENDIGO BLVD N	D17 / 12	89
Registry ID: 110040626356			
OLYMPUS JOB 91 3593	S SIDE 101ST ST 1 BL	H33 / 12	106
Registry ID: 110008223617			
KING CNTY DOT 428TH	ON 428TH AVE SE CROS	J43 / 12	119

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Registry ID: 110017939506			
WA DOT BRG 202/066	MP 29.50-29.59	J47 / 12	128
Registry ID: 110035443179			
CHAPLINS NORTH BEND	106 MAIN AVE N	P61 / 12	148
Registry ID: 110005366460			
J.O. BORGES PLAZA	248 BENDIGO BLVD S	W87 / 12	174
Registry ID: 110054937404			
KING CNTY DEEP CREEK	FURY LAKE RD 7.5 MI	Z103 / 12	202
Registry ID: 110008227258			
RIVER GLEN	814 NE 3RD STREET	AA104 / 13	203
Registry ID: 110064389638			
RANGER STATION COTTA	SEC 424TH AVE SE & S	131 / 13	240
Registry ID: 110066841868			
PHOENIX PLAZA	530 E NORTH BEND WAY	AJ147 / 12	257
Registry ID: 110070229416			
ORCHARD PLACE APARTM	240 SE ORCHARD DR	AK152 / 12	260
Registry ID: 110070237111			
SI VIEW PARK AND POO	400 SE ORCHARD DR	157 / 12	262
Registry ID: 110015439140			
WA DOT CAMP MASON US	SR I90 MP 42.29	AP169 / 12	279
Registry ID: 110006138928			
FIRE STATION 87	500 MALONEY GROVE AV	AQ171 / 12	283
Registry ID: 110046591540			
SI VIEW ESTATES 28 L	1045 MALONEY GROVE A	AQ176 / 12	285
Registry ID: 110055371119			
NORTH BEND AUTO PART	1120 E NORTH BEND WA	AS179 / 13	287
Registry ID: 110005397070			
KING CNTY DOT MOUNT	43600 MOUNT SI RD	AT181 / 13	307
Registry ID: 110037223000			
SAFEWAY STORE 1528	460 SW MT SI BLVD	AV195 / 12	330
Registry ID: 110058229670			
NORTH BEND CITY	1155 E NORTH BEND WA	207 / 18	355
Registry ID: 110070226846			
Registry ID: 110064679879			
MALONEY GROVE 9 LOT	701 MALONEY GROVE AV	AY210 / 17	366
Registry ID: 110055371146			
MALONEY GROVE 13	710 MALONEY GROVE AV	BA221 / 17	375
Registry ID: 110064653888			
CEDAR FALLS DEVELOPM	INTER OF 424TH AVE S	BC229 / 17	383
Registry ID: 110054911333			
APPLIED PROFESSIONAL	43530 SE NORTH BEND	BD235 / 18	389
Registry ID: 110069632712			
NORTH BEND COTTAGES	UNSPECIFIED	BE238 / 18	391
Registry ID: 110067183559			
CEDAR RIVER PARTNERS	44124 SE NORTH BEND	243 / 18	396
Registry ID: 110070554524			
SUN RISE VIEW	42621 SE 134TH PL	BI257 / 18	406

EXECUTIVE SUMMARY

Registry ID: 110070501604			
MINERS RIDGE 24 LOT	13607 461ST AVE SE	BM282 / 19	434
Registry ID: 110059660228			
TANNER FALLS RECLAMA	SE 140TH ST WESTERLY	BO285 / 19	437
Registry ID: 110058230347			
TANNERWOOD	SE 140	BR298 / 19	451
Registry ID: 110040626793			
CEDAR LANDING PHASES	UNSPECIFIED	300 / 18	452
Registry ID: 110070080669			
CHAMPION INTERNATION	200 FT S OF MIDDLE F	BT309 / 19	456
Registry ID: 110008214495			
ESTATE OF DANIEL H C	45120 SE NORTH BEND	BV318 / 19	468
Registry ID: 110005404400			
SNOQUALMIE VALLEY SC	46837 SE MIDDLE FORK	323 / 20	476
Registry ID: 110005380792			
MATSON, LLC	45620 SE N BEND WAY	BX329 / 19	484
Registry ID: 110015737862			
NOR WEST MOBILE HOME	45810 SE NORTH BEND	BY335 / 19	517
Registry ID: 110013064708			
TANNER ELECTRIC COOP	45710 SE NORTH BEND	CA344 / 19	522
Registry ID: 110000827767			
190 NORTH BEND CORPO	SE NORTH BEND WAY	CD353 / 20	530
Registry ID: 110054615617			

WA ASBESTOS: ASBESTOS

A review of the WA ASBESTOS list, as provided by EDR, and dated 12/05/2019 has revealed that there are 29 WA ASBESTOS sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
Not reported	9027 428TH AVENUE SE	7 / 8	78
Not reported	710 MALONEY GROVE W 1	19 / 13	90
Not reported	336 BENDIGO BLVD N	20 / 12	93
Not reported	709 NE 6TH ST	22 / 13	99
Not reported	212 W SECOND ST THRO	35 / 12	107
Not reported	128 BENDIGO BLVD NOR	L46 / 12	121
Not reported	142 MAIN AVE N	M54 / 12	133
Not reported	111 MAIN AVE N.	P56 / 12	138
Not reported	235 EAST 3RD STREET	60 / 12	141
Not reported	216 E PARK NORTH	AE115 / 12	219
Not reported	228 E PARK AVE NORTH	AE118 / 12	222
Not reported	411 MAIN AVE. SOUTH	AF120 / 12	224
Not reported	316 CEDAR AVE S	121 / 12	229
Not reported	530-570 E. NORTH BEN	AJ145 / 12	255
Not reported	902 SE NORTH BEND WA	163 / 12	269
Not reported	910 MALONEY GROVE AV	AQ180 / 12	305
Not reported	448 SE MAPLE DRIVE E	AW205 / 17	345
Not reported	448 MAPLE DRIVE ALL	AW206 / 17	354
MALONEY GROVE 9 LOT	701 MALONEY GROVE AV	AY211 / 17	366
MALONEY GROVE 13	710 MALONEY GROVE AV	BA220 / 17	373
Not reported	13306 427TH AVE SE	241 / 18	392

EXECUTIVE SUMMARY

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
Not reported	13315 433RD CT SE KI	BF245 / 18	397
Not reported	42621 134TH PL	BI258 / 18	407
Not reported	13513 434TH AVE SE,	262 / 18	410
CEDAR RIVER PARTNERS	44124 SE NORTH BEND	265 / 18	417
Not reported	43030 SE 137TH PL TH	BN283 / 18	435
Not reported	13803 424TH AVE SE C	286 / 17	437
Not reported	45312 SE 140TH STREE	311 / 19	458
Not reported	44572 SE 144TH STREE	352 / 19	528

WA Financial Assurance: Financial Assurance Information Listing

A review of the WA Financial Assurance list, as provided by EDR, has revealed that there are 5 WA Financial Assurance sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND SHELL	225 E NORTH BEND WAY	X95 / 12	179
Database: Financial Assurance 1, Date of Government Version: 11/25/2019 DOE Site ID: 2428			
NORTH BEND 76	520 E NORTH BEND WAY	AH140 / 12	244
Database: Financial Assurance 1, Date of Government Version: 11/25/2019 DOE Site ID: 8108			
MT SI SHELL	742 SW MT SI BLVD	AM160 / 12	265
Database: Financial Assurance 1, Date of Government Version: 11/25/2019 DOE Site ID: 97659			
MT SI CHEVRON	745 SW MT SI BLVD	AN164 / 12	273
Database: Financial Assurance 1, Date of Government Version: 11/25/2019 DOE Site ID: 97603			
SAFEWAY FUEL 1528	715 SW MT SI BLVD	AU199 / 17	342
Database: Financial Assurance 1, Date of Government Version: 11/25/2019 DOE Site ID: 476303			

CA HAZNET: Facility and Manifest Data

A review of the CA HAZNET list, as provided by EDR, and dated 12/31/2017 has revealed that there is 1 CA HAZNET site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND ELEMENTAR GEPAID: WAC980827040	400 E 3RD ST	S73 / 12	162

WA MANIFEST: Hazardous Waste Manifest Data

A review of the WA MANIFEST list, as provided by EDR, and dated 03/29/2019 has revealed that there are 8 WA MANIFEST sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
WA DOT BRG 202/066	MP 29.50-29.59	L48 / 12	128

EXECUTIVE SUMMARY

Facility Site ID Number: 4130071
 Gen Status CD: SQG
 EPA ID: WAH000031408

NORTH BEND AUTO PART	1120 E NORTH BEND WA	AS179 / 13	287
Facility Site ID Number: 25439352 Gen Status CD: SQG EPA ID: WAH000010827			
KING CNTY DOT MOUNT	43600 MOUNT SI RD	AT181 / 13	307
Facility Site ID Number: 7159756 Gen Status CD: LQG Gen Status CD: XQG EPA ID: WAH000033348			
SAFeway STORE 1528	460 SW MT SI BLVD	AV194 / 12	323
Facility Site ID Number: 3485 Gen Status CD: SQG EPA ID: WAH000044838			
NORTH BEND CITY	1155 E NORTH BEND WA	207 / 18	355
Facility Site ID Number: 5666768 Gen Status CD: SQG EPA ID: WAH000022826			
APPLIED PROFESSIONAL	43530 SE NORTH BEND	BD234 / 18	386
Facility Site ID Number: 15772 Gen Status CD: XQG EPA ID: WAH000051652			
ESTATE OF DANIEL H C	45120 SE NORTH BEND	BV316 / 19	465
Facility Site ID Number: 11385314 Gen Status CD: LQG EPA ID: WAR000008474			
EM MATSON JR CO INC	45620 SE NORTH BEND	BX328 / 19	481
Facility Site ID Number: 798308 Gen Status CD: LQG EPA ID: WAH000044444			

WA NPDES: Water Quality Permit System Data

A review of the WA NPDES list, as provided by EDR, and dated 10/15/2019 has revealed that there are 14 WA NPDES sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
SHAKE MILL LEFT BANK Permit ID: WAR307879	8716 428TH AVE SE	B3 / 8	74
NORTH BEND WASTEWATE Permit ID: WAR306843	400 BENDIGO BLVD N	C13 / 12	85
NORTH BEND STP Permit ID: WA0029351 Facility Status: Active	400 NORTH BEND BLVD	114 / 12	214
PHOENIX PLAZA Permit ID: WAR306309	530 E NORTH BEND WAY	AJ144 / 12	254
RANGER STATION COTTA	SEC 424TH AVE SE & S	148 / 12	257

EXECUTIVE SUMMARY

Permit ID: WAR303471			
ORCHARD PLACE APARTM	240 SE ORCHARD DR	AK151 / 12	259
Permit ID: WAR306494			
MT SI BRIDGE 2550A		204 / 18	344
Permit ID: WAG994404			
NORTH BEND CITY	1155 E NORTH BEND WA	207 / 18	355
Permit ID: WAR306273			
I-90 NORTH BEND CORP	468TH AVE SE BW SE 1	232 / 19	384
Permit ID: WAR012243			
Facility Status: Active			
CEDAR FALLS SOUTH	13303 427TH AVE SE	240 / 18	392
Permit ID: WAR305260			
SUN RISE VIEW	42621 SE 134TH PL	BI259 / 18	409
Permit ID: WAR307403			
CEDAR RIVER PARTNERS	44124 SE NORTH BEND	265 / 18	417
Permit ID: WAR307958			
RIVER RUN	43600 SE 136TH STREE	BK268 / 18	422
Permit ID: WAR306832			
TANNER FALLS RECLAMA	SE 140TH ST WEST OF	292 / 19	446
Permit ID: WAR301698			
Facility Status: Active			

WA UIC: Underground Injection Wells Listing

A review of the WA UIC list, as provided by EDR, and dated 10/15/2019 has revealed that there are 27 WA UIC sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
PLAT OF RIVER GLEN Well Status: Active	PICKETT AVE,	N52 / 13	132
PLAT OF RIVER GLEN Well Status: Active	PICKETT AVE,	80 / 13	169
PLAT OF RIVER GLEN Well Status: Active	PICKETT AVE,	AD113 / 13	213
PLAT OF RIVER GLEN Well Status: Active	PICKETT AVE,	AD119 / 13	224
CITY OF NORTH BEND N Well Status: Active	NE 3RD ST	AI129 / 13	239
NORTH BEND GASOLINE, Well Status: Active	520 E N BEND WAY	AH135 / 12	242
MT SI VISTA (I 1) (D Well Status: Active	13315 433RD CT SE	BF244 / 18	397
MT SI VISTA (I 1) (D Well Status: Active	13315 433RD CT SE	BF246 / 18	401
KING COUNTY DEPT OF Well Status: Active	4430 337 PL SE	252 / 18	404
CHINOOK LUMBER	436TH AVE SE @ CEDAR	BH253 / 18	405

EXECUTIVE SUMMARY

Well Status: Active			
CHINOOK LUMBER	436TH AVE SE @ CEDAR	BH254 / 18	405
Well Status: Active			
CHINOOK LUMBER	436TH AVE SE @ CEDAR	BH255 / 18	405
Well Status: Active			
CHINOOK LUMBER	436TH AVE SE @ CEDAR	BH256 / 18	406
Well Status: Active			
MT SI VISTA (I 2) (D	13500 434RD AVE SE	260 / 18	409
Well Status: Active			
MT SI VISTA (I 3) (D	13532 433RD PLACE SE	266 / 18	421
Well Status: Active			
RIVER RUN	43600 SE 136TH STREE	BK269 / 18	423
Well Status: Active			
RIVER RUN	43600 SE 136TH STREE	BK270 / 18	423
Well Status: Active			
RIVER RUN	43600 SE 136TH STREE	BK271 / 18	424
Well Status: Active			
RIVER RUN	43600 SE 136TH STREE	BK272 / 18	424
Well Status: Active			
RIVER RUN	43600 SE 136TH STREE	BK273 / 18	425
Well Status: Active			
Well Status: Proposed			
RIVER RUN	43600 SE 136TH STREE	BK274 / 18	425
Well Status: Active			
KING COUNTY SHORT PL	44139 SE 136TH ST	303 / 18	453
Well Status: Active			
CEDAR VILLAGE DIVISI	14219 443RED PLACE S	324 / 18	479
Well Status: Active			
CEDAR VILLAGE 4 (D90	43910 SE 143RD STREE	BZ338 / 18	519
Well Status: Active			
KING CNTY SHORT PLAT	43610 SE 143RD PLACE	339 / 18	519
Well Status: Active			
CEDAR VILLAGE 4 (D90	43911 SE 143RD STREE	BZ346 / 18	525
Well Status: Active			
KING CNTY SHORT PLAT	43930 SE 144TH LANE	355 / 18	531
Well Status: Active			

MINES MRDS: Mineral Resources Data System

A review of the MINES MRDS list, as provided by EDR, and dated 04/06/2018 has revealed that there are 6 MINES MRDS sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
SCHLOCK PIT		8 / 8	81
ANNIE		9 / 9	82
CAMP BROWN QUARRY		G30 / 12	104
MAINLINE 100 PIT		F31 / 12	105
NORTH BEND PIT - DIV		158 / 12	264
DAVID PIT		BP288 / 19	443

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR Exclusive Historical Auto Stations

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 20 EDR Hist Auto sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND TESORO	302 BENDIGO BLVD N	F29 / 12	104
G & S SERVICES INC	225 BENDIGO BLVD N	G34 / 12	107
MOFFAT DISTRIBUTING	107 SIDNEY ST N	I36 / 12	109
NORTH BEND CHEVRON	201 W NORTH BEND WAY	O55 / 12	138
CLARKE FLOYD M	FIRST AVE E & MAIN	Q66 / 12	159
ARCO SELF SERVICE	201 N BEND BLVD N	R67 / 12	159
CLARKE FLOYD M	104 1ST AVE	Q68 / 12	159
G & S SERVICES INC	225 N BEND BLVD N	R77 / 12	168
WALLACE WARREN A	FIRST & BALLARD	79 / 12	169
WYRSCH GEORGE A JR	221 1ST AVE E	X89 / 12	176
WYRSCH GEORGE G	225 1ST AVE E	X90 / 12	176
WYRSCH GEORGE G	225 EAST NORTH BEND	X94 / 12	178
NORTH BEND CHEVRON	302 N BEND BLVD N	W97 / 12	191
GRINA DONALD D	417 1ST AVE E	AC117 / 12	222
STANDARD SERVICES &	520 E NORTH BAND WAY	AH136 / 12	242
MOUNT SI TEXACO	742 SW MT SI BLVD	AM162 / 12	269
G & S SERVICES INC	745 SW MT SI BLVD	AN166 / 12	278
TRANSMISSIONS PLUS I	1130 E NORTH BEND WA	AS185 / 13	319
NORTH BEND 76	721 SW MT SI BLVD	AU190 / 12	321
RON'S AUTO SERVICE	42620 SE NORTH BEND	AZ217 / 18	370

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 4 EDR Hist Cleaner sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
FALLS LAUNDRY INC	125 E NORTH BEND WAY	U78 / 12	168
NORTH BEND CLEANERS	400 E NORTH BEND WAY	AC111 / 12	213
MOUNTSIDE DRY CLEANER	412 MAIN AVE S	AF128 / 12	238
ANDRES DRYCLEANER	458 SW MT SI BLVD	AR173 / 12	284

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

WA RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

A review of the WA RGA HWS list, as provided by EDR, has revealed that there are 7 WA RGA HWS sites

EXECUTIVE SUMMARY

within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND COMMUNITY Facility ID: 7437936	126 E 4TH	E25 / 12	102
NORTH BEND 76 Facility ID: 4364196	520 E NORTH BEND WAY	AH133 / 12	241
FRANK PADAVICH Facility ID: 37779318	1130 E NORTH BEND WA	AS188 / 13	320
76 STATION Facility ID: 92656149	721 SW MT SI BLVD	AU193 / 12	322
PUGET POWER TANNER M Facility ID: 65553121	44429 SE TANNER RD	BL280 / 18	433
WA DOT NORTHBEND Facility ID: 26445399	45000 SE 140TH ST	BQ295 / 19	449
ENGINEERED COATING S Facility ID: 11385314	45120 SE NORTH BEND	BV317 / 19	468

WA RGA LF: Recovered Government Archive Solid Waste Facilities List

A review of the WA RGA LF list, as provided by EDR, has revealed that there is 1 WA RGA LF site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND WWTP Facility ID: 2290	400 BENDIGO BOULEVAR	C11 / 12	84

WA RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

A review of the WA RGA LUST list, as provided by EDR, has revealed that there are 19 WA RGA LUST sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTH BEND COMMUNITY Facility ID: 483423 Facility ID: 483423.0	126 E 4TH	E26 / 12	103
NORTH BEND COMMUNITY Facility ID: 483423 Facility ID: 483423.0	126 E 4TH	E27 / 12	103
BRYANS ONE STOP Facility ID: 8310	302 W NORTH BEND WAY	I37 / 12	109
BRYAN'S ONE STOP Facility ID: 8310	302 W NORTH BEND WAY	I39 / 12	116
NORTH BEND TESORO Facility ID: 8310 Facility ID: 8310.0	302 W NORTH BEND WAY	I40 / 12	117
RESIDENCE E 3RD ST Facility ID: 484471	349 E 3RD ST	S69 / 12	160
VIRGINIA MASON CLINI	248 MAIN AVE S	V85 / 12	173

EXECUTIVE SUMMARY

Facility ID: 490589			
NORTH BEND TEXACO	225 E NORTH BEND WAY	X92 / 12	177
Facility ID: 2428			
Facility ID: 2428.0			
Facility ID: 82682276			
NORTH BEND 76	520 E NORTH BEND WAY	AH134 / 12	241
Facility ID: 4364196			
FRANK PADAVICH	1130 E NORTH BEND WA	AS187 / 13	320
Facility ID: 37779318			
Facility ID: 100192			
Facility ID: 100192.0			
76 STATION	721 SW MT SI BLVD	AU192 / 12	322
Facility ID: 92656149			
SAFEWAY FUEL 1528	715 SW MT SI BLVD	AU201 / 17	344
Facility ID: 476303			
SAFEWAY FUEL #1528	715 SW MT SI BLVD	AU202 / 17	344
Facility ID: 476303			
SAFEWAY FUEL CENTER	715 SW MT SI BLVD	AU203 / 17	344
Facility ID: 476303			
PUGET SOUND POWER	44429 SE TANNER RD	BL275 / 18	426
Facility ID: 9173			
PUGET POWER TANNER M	44429 SE TANNER RD	BL277 / 18	426
Facility ID: 65553121			
PUGET SOUND POWER &	44429 SE TANNER RD	BL278 / 18	426
Facility ID: 5738			
Facility ID: 9173			
Facility ID: 9173.0			
MC ANDERSON TRUCKING	44711 SE NORTHBEND W	BT307 / 19	455
Facility ID: 10533			
Facility ID: 10533.0			
Facility ID: 2137			
MC ANDERSON	44711 SE NORTHBEND	BT308 / 19	456
Facility ID: 10533			

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Page Numbers and Map Identifications refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

A review of the RCRA-VSQG list, as provided by EDR, and dated 12/16/2019 has revealed that there is 1 RCRA-VSQG site within approximately 0.25 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
GENIE INDUSTRIES NOR EPA ID:: WAH000035177	47020 SE 144TH ST	E 1/8 - 1/4 (0.174 mi.)	CM384 / 20	596

State- and tribal - equivalent CERCLIS

WA CSCSL: Confirmed and Suspected Contaminated Sites List

A review of the WA CSCSL list, as provided by EDR, and dated 10/15/2019 has revealed that there is 1 WA CSCSL site within approximately 1 mile of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
SHULTZ DISTRIBUTING Site Status: Awaiting Cleanup Clean Up Siteid: 3277 Clean Up Siteid: 11908 Facility ID: 2449 Facility ID: 51367681 Soil: Suspected Soil: Confirmed Above Cleanup Levels Ground Water: Confirmed Above Cleanup Levels Contaminant Name: Petroleum Products-Unspecified Contaminant Name: Petroleum-Diesel Surface Water: Suspected	9120 BOALCH AVE SE	W 1/2 - 1 (0.738 mi.)	398 / 7	624

State and tribal landfill and/or solid waste disposal site lists

WA SWF/LF: Solid Waste Facility Database

A review of the WA SWF/LF list, as provided by EDR, has revealed that there are 2 WA SWF/LF sites within approximately 0.5 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
NORTHFORK ENTERPRISE Database: SWF/LF, Date of Government Version: 12/04/2019 Facility Type: Pile of Inert Waste (exempt) Facility Type: Recycling (non-regulated) Facility ID: 2129	7830 NORTHFORK RD	N 1/4 - 1/2 (0.330 mi.)	391 / 3	618

EXECUTIVE SUMMARY

Facility ID: 2130
 Permit Status: Exempt
 Permit Status: Permit Not Required

CADMAN INC NORTH BEN	47320 SE GROUSE RIDG	ESE 1/4 - 1/2 (0.487 mi.)	397 / 25	623
Database: SWF/LF, Date of Government Version: 12/04/2019				
Facility Type: Material Recovery Facility (exempt)				
Facility ID: 3499				

State and tribal leaking storage tank lists

WA LUST: Leaking Underground Storage Tanks Site List

A review of the WA LUST list, as provided by EDR, has revealed that there are 2 WA LUST sites within approximately 0.5 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
CASCADE AUTOVON COMP	12727 412TH AVE SE	S 0 - 1/8 (0.060 mi.)	CF364 / 17	542
Database: LUST, Date of Government Version: 11/11/2019				
Release Date: 06/20/1991				
LUST Date: 08/09/2018				
Facility Status: LUST - NFA				
Ground Water: Below Cleanup Levels				
Cleanup Site ID: 8879				
Soil: Remediated-Below				
Facility ID: 36296841				
KENS TRUCK STOP	46630 SE NORTH BEND	S 1/8 - 1/4 (0.132 mi.)	CK377 / 25	583
Database: LUST, Date of Government Version: 11/11/2019				
Release Date: 01/08/1999				
LUST Date: 10/03/2011				
Facility Status: LUST - NFA				
Cleanup Site ID: 5117				
Soil: Confirmed Above Cleanup Levels				
Facility ID: 2484				

State and tribal registered storage tank lists

WA UST: Underground Storage Tank Database

A review of the WA UST list, as provided by EDR, and dated 11/11/2019 has revealed that there are 6 WA UST sites within approximately 0.25 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
PETROCARD INC	14420 468TH AVE SE	ESE 0 - 1/8 (0.030 mi.)	CE360 / 20	537
Facility ID: 60598662				
Tank Status: Operational				
Site Id: 101515				
CASCADE AUTOVON COMP	12727 412TH AVE SE	S 0 - 1/8 (0.060 mi.)	CF364 / 17	542
Facility ID: 36296841				

EXECUTIVE SUMMARY

Tank Status: Removed
 Tank Closure Date: 01/04/2007
 Site Id: 97430

WARRIOR'S QUICK STOP Facility ID: 2698893 Tank Status: Operational Site Id: 394525	14500 468TH AVE SE	SSE 0 - 1/8 (0.067 mi.)	CG366 / 25	547
NORTH BEND B530350/N Facility ID: 32493584 Tank Status: Removed Site Id: 10117	12805 412TH AVE SE	S 0 - 1/8 (0.095 mi.)	CI372 / 17	574
HPT TA PROPERTIES TR Facility ID: 2484 Tank Status: Operational Tank Status: Removed Site Id: 2885	46630 SE NORTH BEND	S 1/8 - 1/4 (0.132 mi.)	CK379 / 25	585
HPT TA PROPERTIES TR Facility ID: 3771329 Tank Status: Operational Site Id: 619565	46600 SE NORTH BEND	S 1/8 - 1/4 (0.140 mi.)	CL382 / 25	593

State and tribal voluntary cleanup sites

WA VCP: Voluntary Cleanup Program Sites

A review of the WA VCP list, as provided by EDR, and dated 10/15/2019 has revealed that there is 1 WA VCP site within approximately 0.5 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
CASCADE AUTOVON CO Date NFA: 2018-08-09 VCP: NFA Facility ID: 36296841 Date NFA: 2018-08-09 VCP: NFA Cleanup Siteid: 8879	12727 412TH AVE SE	S 0 - 1/8 (0.060 mi.)	CF365 / 17	547

WA ICR: Independent Cleanup Reports

A review of the WA ICR list, as provided by EDR, and dated 12/01/2002 has revealed that there is 1 WA ICR site within approximately 0.5 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
CASCADE AUTOVON COMP Contaminants Found at Site: 6 Type of Report Ecology Received: I Date Ecology Received Report: 12/02/91 Date Ecology Received Report: 04/20/92 Date Ecology Received Report: 07/08/92	12727 412TH AVE SE	S 0 - 1/8 (0.060 mi.)	CF364 / 17	542

EXECUTIVE SUMMARY

Date Ecology Received Report: 10/02/92
 Date Ecology Received Report: 01/28/93
**Additional key fields are available in the Map Findings section*
 Media Contaminated: GW,S
 Media Contaminated: GW
 Media Contaminated: S

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

WA ALLSITES: Facility/Site Identification System Listing

A review of the WA ALLSITES list, as provided by EDR, and dated 10/29/2019 has revealed that there are 29 WA ALLSITES sites within approximately 0.5 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
SMITTYS TOWING AUTO Facility Id: 7313	42998 SE NORTH BEND	0 - 1/8 (0.001 mi.)	356 / 18	531
SYSTEM TRANSPORT DIE Facility Id: 13893	NWC 468TH AVE SE & S	E 0 - 1/8 (0.003 mi.)	357 / 20	531
KING CNTY DOT 468TH Facility Id: 605643	468TH AVE SE CROSSIN	N 0 - 1/8 (0.005 mi.)	358 / 20	532
NEW SKY LLC Facility Id: 10368	12700 412TH AVE SE	S 0 - 1/8 (0.024 mi.)	359 / 17	536
PETROCARD INC Facility Id: 60598662	14420 468TH AVE SE	ESE 0 - 1/8 (0.030 mi.)	CE362 / 20	540
CASCADE AUTOVON COMP Facility Id: 36296841	12727 412TH AVE SE	S 0 - 1/8 (0.060 mi.)	CF364 / 17	542
KEN ROGERS Facility Id: 2698893 Facility Id: 3479546	14500 468TH AVE SE	SSE 0 - 1/8 (0.067 mi.)	CG367 / 25	550
GENIE TEREX STORAGE Facility Id: 15368	46925 SE MIDDLE FORK	E 0 - 1/8 (0.089 mi.)	CH368 / 20	552
NORTH BEND CITYRIBAR Facility Id: 2002431	E RIBARY WAY	S 0 - 1/8 (0.094 mi.)	370 / 17	570
NORTH BEND B530350/N Facility Id: 56274392 Facility Id: 32493584	12805 412TH AVE SE	S 0 - 1/8 (0.095 mi.)	CI372 / 17	574
LOOP VEHICLE MAINTEN Facility Id: 18976		ESE 0 - 1/8 (0.115 mi.)	373 / 20	577
SI VIEW METROPOLITAN Facility Id: 11539	901 BENDIGO BLVD N	N 0 - 1/8 (0.117 mi.)	CJ375 / 12	579
TOLLGATE FARM PARK T Facility Id: 31320		N 1/8 - 1/4 (0.128 mi.)	376 / 12	583
TRAVEL CENTERS OF AM	46630 NORTH BEND WAY	S 1/8 - 1/4 (0.132 mi.)	CK378 / 25	584

EXECUTIVE SUMMARY

Facility Id: 2807661				
HPT TA PROPERTIES TR	46630 SE NORTH BEND	S 1/8 - 1/4 (0.132 mi.)	CK380 / 25	589
Facility Id: 2484				
HPT TA PROPERTIES TR	46600 SE NORTH BEND	S 1/8 - 1/4 (0.140 mi.)	CL381 / 25	591
Facility Id: 3771329				
PACIFIC PRIDE STATIO		S 1/8 - 1/4 (0.153 mi.)	CL383 / 25	595
Facility Id: 5327972				
GENIE INDUSTRIES NOR	47020 SE 144TH ST	E 1/8 - 1/4 (0.174 mi.)	CM385 / 20	599
Facility Id: 98024				
Facility Id: 8165				
NURSERY THE AT MT SI	42328 SE 108TH ST	N 1/8 - 1/4 (0.246 mi.)	386 / 12	613
Facility Id: 18929				
PEARCE INFILTRATION	14744 447TH AVE SE	S 1/4 - 1/2 (0.266 mi.)	387 / 24	614
Facility Id: 33789				
NORTH BEND DRUM	1610 NW 8TH ST	W 1/4 - 1/2 (0.270 mi.)	388 / 11	614
Facility Id: 43786988				
NORMAN BROOK FARM IN	8000 N FORK RD	N 1/4 - 1/2 (0.274 mi.)	389 / 3	616
Facility Id: 9870243				
MOUNT TENERIFFE TRAI		E 1/4 - 1/2 (0.298 mi.)	390 / 20	617
Facility Id: 7667				
KING CNTY DOT NORTH	MIDDLE FORK RD SE	E 1/4 - 1/2 (0.389 mi.)	392 / 20	619
Facility Id: 11696				
FURY CONSTRUCTION CO	14536 415TH AVE SE	WSW 1/4 - 1/2 (0.418 mi.)	393 / 22	620
Facility Id: 19283672				
SNOQUALMIE VALLEY AT	1422 BENDIGO BLVD N	N 1/4 - 1/2 (0.426 mi.)	394 / 12	621
Facility Id: 22429				
ATT MOBILITY MOUNTAI	13323 409TH AVE SE	S 1/4 - 1/2 (0.435 mi.)	395 / 17	622
Facility Id: 4054				
SNOQUALMIE VALLEY YO	152 BOALCH AVE NW	N 1/4 - 1/2 (0.450 mi.)	396 / 12	622
Facility Id: 19427				
CADMAN INC NORTH BEN	47320 SE GROUSE RIDG	ESE 1/4 - 1/2 (0.487 mi.)	397 / 25	623
Facility Id: 6841				

WA CSCSL NFA: Confirmed & Contaminated Sites - No Further Action

A review of the WA CSCSL NFA list, as provided by EDR, and dated 10/15/2019 has revealed that there are 3 WA CSCSL NFA sites within approximately 0.5 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
SYSTEM TRANSPORT DIE	NWC 468TH AVE SE & S	E 0 - 1/8 (0.003 mi.)	357 / 20	531
CS Id: 11833				
Facility/Site Id: 13893				
Soil: Remediated-Below				
NFA Date: 03/30/2012				
Contaminant Name: Petroleum-Diesel				
CASCADE AUTOVON COMP	12727 412TH AVE SE	S 0 - 1/8 (0.060 mi.)	CF364 / 17	542
CS Id: 8879				

EXECUTIVE SUMMARY

Facility/Site Id: 36296841
 Soil: Remediated-Below
 NFA Date: 08/09/2018
 Groundwater: Below Cleanup Levels
 Contaminant Name: Petroleum-Diesel

HPT TA PROPERTIES TR	46630 SE NORTH BEND	S 1/8 - 1/4 (0.132 mi.)	CK380 / 25	589
CS Id: 5117				
Facility/Site Id: 2484				
Soil: Confirmed Above Cleanup Levels				
NFA Date: 10/03/2011				
Contaminant Name: Petroleum-Diesel				
Contaminant Name: Petroleum-Other				

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/16/2019 has revealed that there are 3 RCRA NonGen / NLR sites within approximately 0.25 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
KING CNTY DOT 468TH EPA ID:: WAH000023250	468TH AVE SE CROSSIN	N 0 - 1/8 (0.005 mi.)	358 / 20	532
AT&T CORP 412TH EPA ID:: WAT540012580	12805 412TH AVE SE	S 0 - 1/8 (0.095 mi.)	CI371 / 17	571
SI VIEW METROPOLITAN EPA ID:: WAH000051785	901 BENDIGO BLVD N	N 0 - 1/8 (0.117 mi.)	CJ374 / 12	577

WA MANIFEST: Hazardous Waste Manifest Data

A review of the WA MANIFEST list, as provided by EDR, and dated 03/29/2019 has revealed that there are 3 WA MANIFEST sites within approximately 0.25 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
KING CNTY DOT 468TH Facility Site ID Number: 605643 Gen Status CD: XQG EPA ID: WAH000023250	468TH AVE SE CROSSIN	N 0 - 1/8 (0.005 mi.)	358 / 20	532
SI VIEW METROPOLITAN Facility Site ID Number: 11539 Gen Status CD: MQG EPA ID: WAH000051785	901 BENDIGO BLVD N	N 0 - 1/8 (0.117 mi.)	CJ375 / 12	579
GENIE INDUSTRIES NOR Facility Site ID Number: 8165 Gen Status CD: SQG EPA ID: WAH000035177	47020 SE 144TH ST	E 1/8 - 1/4 (0.174 mi.)	CM385 / 20	599

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR Exclusive Historical Auto Stations

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 3 EDR Hist Auto sites within approximately 0.125 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
EDGEWICK VLG TEXACO	14420 468TH AVE SE	ESE 0 - 1/8 (0.030 mi.)	CE361 / 20	539
GRAY CONSTRUCTION &	14513 449TH AVE SE	S 0 - 1/8 (0.032 mi.)	363 / 19	542
DVST INC	46925 SE MIDDLE FORK	E 0 - 1/8 (0.089 mi.)	CH369 / 20	570

MAPPED SITES SUMMARY

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
A1 / 8	UNKNOWN	8621 436TH PL SE - S	WA SPILLS	TP
A2 / 8	UNKNOWN	8621 436TH PL SE	WA HIST CDL, WA SPILLS	TP
B3 / 8	SHAKE MILL LEFT BANK	8716 428TH AVE SE	WA ALLSITES, WA NPDES	TP
B4 / 8	KING CNTY NORTH FORK	T24N R83 S34	WA ALLSITES, RCRA NonGen / NLR	TP
B5 / 8	KING CNTY NORTH FORK	T24N R83 S34	FINDS, ECHO	TP
6 / 8	PREVIOUS OWNER	43404 SE 92ND ST.	WA SPILLS	TP
7 / 8		9027 428TH AVENUE SE	WA ASBESTOS	TP
8 / 8	SCHLOCK PIT		MINES MRDS	TP
9 / 9	ANNIE		MINES MRDS	TP
C10 / 12		NORTH BEND TREATMENT	WA SPILLS	TP
C11 / 12	NORTH BEND WWTP	400 BENDIGO BOULEVAR	WA RGA LF	TP
C12 / 12	NORTH BEND STP	400 BENDIGO BLVD N	FINDS, ECHO	TP
C13 / 12	NORTH BEND WASTEWATE	400 BENDIGO BLVD N	WA SWF/LF, WA ALLSITES, WA NPDES	TP
14 / 12	NORTH BEND CITY OF	400 NORTHBEND BLVD N	WA UST	TP
15 / 12	NORTH BEND WWTP	400 BENDIGO	WA ALLSITES	TP
16 / 12		106 E 6TH ST	WA SPILLS	TP
D17 / 12	ULID NO.6 PUMP STATI	356 BENDIGO BLVD N	FINDS, ECHO	TP
D18 / 12	ULID NO 6 PUMP STATI	356 BENDIGO BLVD N	WA ALLSITES	TP
19 / 13		710 MALONEY GROVE W 1	WA ASBESTOS	TP
20 / 12		336 BENDIGO BLVD N	WA ASBESTOS	TP
21 / 12	PARK AND RIDE & STRE	NORTH BEND WAY SYDNE	FINDS	TP
22 / 13		709 NE 6TH ST	WA ASBESTOS	TP
E23 / 12	NORTH BEND COMMUNITY	126 E 4TH ST	WA VCP	TP
E24 / 12	NORTH BEND COMMUNITY	126 E 4TH	WA CSCSL, WA ALLSITES, FINDS	TP
E25 / 12	NORTH BEND COMMUNITY	126 E 4TH	WA RGA HWS	TP
E26 / 12	NORTH BEND COMMUNITY	126 E 4TH	WA RGA LUST	TP
E27 / 12	NORTH BEND COMMUNITY	126 E 4TH	WA RGA LUST	TP
E28 / 12	NORTH BEND COMMUNITY	126 E. 4TH	WA ICR	TP
F29 / 12	NORTH BEND TESORO	302 BENDIGO BLVD N	EDR Hist Auto	TP
G30 / 12	CAMP BROWN QUARRY		MINES MRDS	TP
F31 / 12	MAINLINE 100 PIT		MINES MRDS	TP
H32 / 12	OLYMPUS JOB 91 3593	S SIDE 101ST ST 1 BL	WA ALLSITES	TP
H33 / 12	OLYMPUS JOB 91 3593	S SIDE 101ST ST 1 BL	FINDS, ECHO	TP
G34 / 12	G & S SERVICES INC	225 BENDIGO BLVD N	EDR Hist Auto	TP
35 / 12		212 W SECOND ST THRO	WA ASBESTOS	TP
I36 / 12	MOFFAT DISTRIBUTING	107 SIDNEY ST N	EDR Hist Auto	TP
I37 / 12	BRYANS ONE STOP	302 W NORTH BEND WAY	WA RGA LUST	TP
I38 / 12	BRYANS ONE STOP	302 W NORTH BEND WAY	WA HSL, WA CSCSL, WA LUST, WA UST, WA AL...	TP
I39 / 12	BRYAN'S ONE STOP	302 W NORTH BEND WAY	WA RGA LUST	TP

MAPPED SITES SUMMARY

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
I40 / 12	NORTH BEND TESORO	302 W NORTH BEND WAY	WA RGA LUST	TP
41 / 12	CHEVRON - NORTH BEND	302 NORTH BEND WAY	WA ICR	TP
J42 / 12	KING CNTY DOT 428TH	428TH AVE SE CROSSIN	WA ALLSITES, RCRA NonGen / NLR	TP
J43 / 12	KING CNTY DOT 428TH	ON 428TH AVE SE CROS	FINDS, ECHO	TP
K44 / 12	NORTH BEND CY OF	211 MAIN AV N	FTTS	TP
K45 / 12	NORTH BEND CY OF	211 MAIN AV N	HIST FTTS	TP
L46 / 12		128 BENDIGO BLVD NOR	WA ASBESTOS	TP
J47 / 12	WA DOT BRG 202/066	MP 29.50-29.59	FINDS, ECHO	TP
L48 / 12	WA DOT BRG 202/066	MP 29.50-29.59	WA ALLSITES, WA MANIFEST	TP
M49 / 12	TELEPHONE UTILITIES	131 2ND ST EAST	WA UST	TP
M50 / 12	PACIFIC TELECOM	131 2ND ST. E.	WA ICR	TP
N51 / 13	PLAT OF RIVER GLEN	PICKETT AVE	WA ALLSITES	TP
N52 / 13	PLAT OF RIVER GLEN	PICKETT AVE,	WA UIC	TP
O53 / 12	TOLLGATE FARM PARK	N BEND WAY & BENDIGO	WA ALLSITES	TP
M54 / 12		142 MAIN AVE N	WA ASBESTOS	TP
O55 / 12	NORTH BEND CHEVRON	201 W NORTH BEND WAY	EDR Hist Auto	TP
P56 / 12		111 MAIN AVE N.	WA ASBESTOS	TP
P57 / 12	SALLAL WATER ASSOC	107 MAIN AVE N	FTTS, HIST FTTS	TP
P58 / 12	LOVELAND CHEVROLET	106 MAIN ST	FINDS	TP
M59 / 12	TELEPHONE UTILITIES	131 2ND ST E	FINDS	TP
60 / 12		235 EAST 3RD STREET	WA ASBESTOS	TP
P61 / 12	CHAPLINS NORTH BEND	106 MAIN AVE N	WA UST, WA ALLSITES, RCRA NonGen / NLR, ...	TP
62 / 12	WA DNR NORTH BEND	205 BALLARET	FINDS	TP
M63 / 12	CENTURYTEL NORTH BEN	131 2ND AVE E	WA LUST, WA ALLSITES, WA CSCSL NFA, FIND...	TP
Q64 / 12	FLOYDS COMPLETE SERV	106 E NORTH BEND WAY	WA UST, WA ALLSITES	TP
Q65 / 12	FLOYDS COMPLETE SERV	106 E NORTH BEND WAY	FINDS	TP
Q66 / 12	CLARKE FLOYD M	FIRST AVE E & MAIN	EDR Hist Auto	TP
R67 / 12	ARCO SELF SERVICE	201 N BEND BLVD N	EDR Hist Auto	TP
Q68 / 12	CLARKE FLOYD M	104 1ST AVE	EDR Hist Auto	TP
S69 / 12	RESIDENCE E 3RD ST	349 E 3RD ST	WA RGA LUST	TP
S70 / 12	RESIDENCE GREW	349 E 3RD ST	WA ALLSITES, WA CSCSL NFA, FINDS	TP
S71 / 12	RESIDENCE	349 E. 3RD ST.	WA ICR	TP
S72 / 12	RESIDENCE GREW	349 E 3RD ST	WA VCP	TP
S73 / 12	NORTH BEND ELEMENTAR	400 E 3RD ST	CA HAZNET	TP
T74 / 12	WA DNR NORTH BEND	205 BALLARET	WA UST, WA ALLSITES, WA CSCSL NFA	TP
T75 / 12	DNR NORTH BEND	223 E 2ND ST	WA LUST	TP
T76 / 12	DEPARTMENT OF NATURA	223 E. 2ND ST.	WA ICR	TP
R77 / 12	G & S SERVICES INC	225 N BEND BLVD N	EDR Hist Auto	TP
U78 / 12	FALLS LAUNDRY INC	125 E NORTH BEND WAY	EDR Hist Cleaner	TP

MAPPED SITES SUMMARY

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
79 / 12	WALLACE WARREN A	FIRST & BALLARD	EDR Hist Auto	TP
80 / 13	PLAT OF RIVER GLEN	PICKETT AVE,	WA UIC	TP
V81 / 12	VIRGINIA MASON MED C	248 MAIN AVE S	WA LUST, WA ALLSITES, WA CSCSL NFA	TP
V82 / 12	VIRGINIA MASON CLINI	248 MAIN AVE S	WA UST, WA ICR	TP
V83 / 12	VIRGINIA MASON MED C	248 MAIN AVE S	WA VCP	TP
V84 / 12	VIRGINIA MASON MED C	248 MAIN AVE S	FINDS	TP
V85 / 12	VIRGINIA MASON CLINI	248 MAIN AVE S	WA RGA LUST	TP
U86 / 12		NORTH BEND BAR & GRI	WA SPILLS	TP
W87 / 12	J.O. BORGES PLAZA	248 BENDIGO BLVD S	FINDS, ECHO	TP
W88 / 12	LIGHTRECYCLE WASHING	248 BENDIGO BOULEVAR	WA SWRCY, WA ALLSITES	TP
X89 / 12	WYRSCH GEORGE A JR	221 1ST AVE E	EDR Hist Auto	TP
X90 / 12	WYRSCH GEORGE G	225 1ST AVE E	EDR Hist Auto	TP
91 / 12			WA SPILLS	TP
X92 / 12	NORTH BEND TEXACO	225 E NORTH BEND WAY	WA RGA LUST	TP
X93 / 12	TEXACO	225 E. NORTH BEND WA	WA ICR	TP
X94 / 12	WYRSCH GEORGE G	225 EAST NORTH BEND	EDR Hist Auto	TP
X95 / 12	NORTH BEND SHELL	225 E NORTH BEND WAY	WA HSL, WA CSCSL, WA LUST, WA UST, WA AL...	TP
X96 / 12	NORTH BEND TEXACO	225 E NORTH BEND WAY	FINDS	TP
W97 / 12	NORTH BEND CHEVRON	302 N BEND BLVD N	EDR Hist Auto	TP
98 / 12	METRO TRANSIT	MAIN AVE. SO. & EAST	WA SPILLS	TP
Y99 / 12	BUSY BEE STATION & C	352 E NORTH BEND WAY	WA UST, WA ALLSITES, FINDS	TP
Y100 / 12	DINGFORD CREEK TRAIL	NEAR DINGFORD CREEK	US BROWNFIELDS, FINDS	TP
Z101 / 12	KING CNTY DEEP CREEK	FURY LAKE RD 7.5 MI	WA ALLSITES	TP
102 / 12	KING COUNTY SECURE M	460 E NORTH BEND WAY	WA SWRCY	TP
Z103 / 12	KING CNTY DEEP CREEK	FURY LAKE RD 7.5 MI	FINDS, ECHO	TP
AA104 / 13	RIVER GLEN	814 NE 3RD STREET	ECHO	TP
AA105 / 13	RIVER GLEN	814 NE 3RD STREET	WA ALLSITES	TP
AA106 / 13	RIVER GLEN	814 NE 3RD STREET	FINDS	TP
Y107 / 12	UNOCAL SERVICE STN 2	330 & 354 E NORTH BE	WA CSCSL, WA LUST, WA UST, WA ALLSITES, ...	TP
AB108 / 12		312 E. PARK ST.	ERNS	TP
AB109 / 12	PSE	312 E PARK ST	WA SPILLS	TP
AC110 / 12	NORTH BEND DRY CLEAN	400 E NORTH BEND WAY	WA ALLSITES	TP
AC111 / 12	NORTH BEND CLEANERS	400 E NORTH BEND WAY	EDR Hist Cleaner	TP
AC112 / 12	NORTH BEND DRY CLEAN	400 E NORTH BEND WAY	FINDS	TP
AD113 / 13	PLAT OF RIVER GLEN	PICKETT AVE,	WA UIC	TP
114 / 12	NORTH BEND STP	400 NORTH BEND BLVD	WA LUST, WA ALLSITES, WA CSCSL NFA, RCRA...	TP
AE115 / 12		216 E PARK NORTH	WA ASBESTOS	TP
116 / 12	LIGHTRECYCLE WASHING	330 MAIN AVE. S	WA SWRCY	TP
AC117 / 12	GRINA DONALD D	417 1ST AVE E	EDR Hist Auto	TP

MAPPED SITES SUMMARY

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AE118 / 12		228 E PARK AVE NORTH	WA ASBESTOS	TP
AD119 / 13	PLAT OF RIVER GLEN	PICKETT AVE,	WA UIC	TP
AF120 / 12		411 MAIN AVE. SOUTH	WA ASBESTOS	TP
121 / 12		316 CEDAR AVE S	WA ASBESTOS	TP
AG122 / 12		468 E NORTHBEND WAY	WA SPILLS	TP
AG123 / 12	NEIGHBORING GAS STAT	468 E NORTH BEND WY	WA SPILLS	TP
AH124 / 12	QFC SHOPPING CENTER	470 E NORTH BEND WAY	WA UST, WA ALLSITES	TP
AH125 / 12	QFC SHOPPING CENTER	470 E NORTH BEND WAY	FINDS	TP
AE126 / 12	NORTH BEND	215 E PARK	WA UST	TP
AE127 / 12	NORTH BEND	215 E PARK	WA ALLSITES, FINDS	TP
AF128 / 12	MOUNTSIDE DRY CLEANER	412 MAIN AVE S	EDR Hist Cleaner	TP
AI129 / 13	CITY OF NORTH BEND N	NE 3RD ST	WA UIC	TP
AI130 / 13	CITY OF NORTH BEND N	NE 3RD ST	WA ALLSITES	TP
131 / 13	RANGER STATION COTTA	SEC 424TH AVE SE & S	FINDS, ECHO	TP
AH132 / 12		76 GAS STATION	WA SPILLS	TP
AH133 / 12	NORTH BEND 76	520 E NORTH BEND WAY	WA RGA HWS	TP
AH134 / 12	NORTH BEND 76	520 E NORTH BEND WAY	WA RGA LUST	TP
AH135 / 12	NORTH BEND GASOLINE,	520 E N BEND WAY	WA UIC	TP
AH136 / 12	STANDARD SERVICES &	520 E NORTH BAND WAY	EDR Hist Auto	TP
AH137 / 12		520 E NORTHBEND WY	WA SPILLS	TP
AH138 / 12		520 EAST NORTHBEND W	ERNS	TP
AH139 / 12	NORTH BEND 76	520 E NORTH BEND WAY	WA VCP	TP
AH140 / 12	NORTH BEND 76	520 E NORTH BEND WAY	WA Financial Assurance	TP
AH141 / 12	NORTH BEND 76	520 E NORTH BEND WAY	WA CSCSL, WA LUST, WA UST, WA ALLSITES, ...	TP
AJ142 / 12	NORTH BEND 76	468 - 482 E NORTH BE	WA SPILLS	TP
143 / 12		209 THRASHER AVE	WA SPILLS	TP
AJ144 / 12	PHOENIX PLAZA	530 E NORTH BEND WAY	WA ALLSITES, WA NPDES	TP
AJ145 / 12		530-570 E. NORTH BEN	WA ASBESTOS	TP
AJ146 / 12	PHOENIX PLAZA	530 E NORTH BEND WAY	FINDS	TP
AJ147 / 12	PHOENIX PLAZA	530 E NORTH BEND WAY	ECHO	TP
148 / 12	RANGER STATION COTTA	SEC 424TH AVE SE & S	WA ALLSITES, WA NPDES	TP
149 / 12		424 HEALY AVE S	WA SPILLS	TP
150 / 12	APARTMENT MANAGER	MAIN AVE S & STOW AV	WA SPILLS	TP
AK151 / 12	ORCHARD PLACE APARTM	240 SE ORCHARD DR	WA ALLSITES, WA NPDES	TP
AK152 / 12	ORCHARD PLACE APARTM	240 SE ORCHARD DR	ECHO	TP
AK153 / 12	ORCHARD PLACE APARTM	240 SE ORCHARD DR	FINDS	TP
AL154 / 12	NORTH BEND GARDINER	400 S FORK AVE SW	WA ALLSITES, FINDS	TP
AL155 / 12	NINTENDO DISTRIBUTIO	401 S FORK AVE SW	WA ALLSITES	TP
AL156 / 12	NINTENDO DISTRIBUTIO	401 S FORK AVE SW	FINDS	TP

MAPPED SITES SUMMARY

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
157 / 12	SI VIEW PARK AND POO	400 SE ORCHARD DR	WA ALLSITES, FINDS, ECHO	TP
158 / 12	NORTH BEND PIT - DIV		MINES MRDS	TP
AM159 / 12	GEORGE G WYRSCH	742 SW MT SI BLVD	FINDS	TP
AM160 / 12	MT SI SHELL	742 SW MT SI BLVD	WA Financial Assurance	TP
AM161 / 12	MT SI SHELL	742 SW MT SI BLVD	WA UST, WA ALLSITES	TP
AM162 / 12	MOUNT SI TEXACO	742 SW MT SI BLVD	EDR Hist Auto	TP
163 / 12		902 SE NORTH BEND WA	WA ASBESTOS	TP
AN164 / 12	MT SI CHEVRON	745 SW MT SI BLVD	WA UST, WA ALLSITES, WA Financial Assura...	TP
AN165 / 12	G & S SERVICES	745 SW MT SI BLVD	FINDS	TP
AN166 / 12	G & S SERVICES INC	745 SW MT SI BLVD	EDR Hist Auto	TP
AO167 / 12	SCHUCKS AUTO SUPPLY	400 SW MOUNT SI BLVD	WA ALLSITES	TP
AO168 / 12	SCHUCKS AUTO SUPPLY	400 SW MOUNT SI BLVD	FINDS	TP
AP169 / 12	WA DOT CAMP MASON US	SR I90 MP 42.29	FINDS, ECHO	TP
AP170 / 12	WA DOT CAMP MASON US	SR I90 MP 42.29	WA ALLSITES, RCRA NonGen / NLR	TP
AQ171 / 12	FIRE STATION 87	500 MALONEY GROVE AV	FINDS, ECHO	TP
AQ172 / 12	FIRE STATION 87	500 MALONEY GROVE AV	WA ALLSITES	TP
AR173 / 12	ANDRES DRYCLEANER	458 SW MT SI BLVD	EDR Hist Cleaner	TP
AR174 / 12	MICHAELS FINE DRY CL	458 SW MT SI BLVD	WA ALLSITES	TP
AR175 / 12	MICHAELS FINE DRY CL	458 SW MT SI BLVD	FINDS	TP
AQ176 / 12	SI VIEW ESTATES 28 L	1045 MALONEY GROVE A	FINDS, ECHO	TP
AQ177 / 12	SI VIEW ESTATES 28 L	1045 MALONEY GROVE A	WA ALLSITES	TP
178 / 11		1525 ROCK CREEK RIDG	WA SPILLS	TP
AS179 / 13	NORTH BEND AUTO PART	1120 E NORTH BEND WA	RCRA-VSQQ, WA ALLSITES, FINDS, ECHO, WA ...	TP
AQ180 / 12		910 MALONEY GROVE AV	WA ASBESTOS	TP
AT181 / 13	KING CNTY DOT MOUNT	43600 MOUNT SI RD	WA ALLSITES, FINDS, ECHO, WA MANIFEST	TP
AT182 / 13	KING CNTY DOT MOUNT	43600 MOUNT SI RD	RCRA NonGen / NLR	TP
AS183 / 13	FRANK PADAVICH	1130 E NORTH BEND WA	WA CSCSL, WA LUST, WA UST, WA ALLSITES	TP
AS184 / 13	FRANK PADAVICH	1130 E NORTH BEND WA	WA VCP	TP
AS185 / 13	TRANSMISSIONS PLUS I	1130 E NORTH BEND WA	EDR Hist Auto	TP
AS186 / 13	FRANK PADAVICH	1130 E NORTH BEND WA	FINDS	TP
AS187 / 13	FRANK PADAVICH	1130 E NORTH BEND WA	WA RGA LUST	TP
AS188 / 13	FRANK PADAVICH	1130 E NORTH BEND WA	WA RGA HWS	TP
AU189 / 12	GAS STATION	721 SW MT SI BLVD	WA SPILLS	TP
AU190 / 12	NORTH BEND 76	721 SW MT SI BLVD	EDR Hist Auto	TP
AU191 / 12	SAFEWAY FUEL 1528	721 SW MT SI BLVD	FINDS	TP
AU192 / 12	76 STATION	721 SW MT SI BLVD	WA RGA LUST	TP
AU193 / 12	76 STATION	721 SW MT SI BLVD	WA RGA HWS	TP
AV194 / 12	SAFEWAY STORE 1528	460 SW MT SI BLVD	WA ALLSITES, WA MANIFEST	TP
AV195 / 12	SAFEWAY STORE 1528	460 SW MT SI BLVD	FINDS, ECHO	TP

MAPPED SITES SUMMARY

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AV196 / 12	SAFEWAY STORE 1528	460 SW MT SI BLVD	RCRA-VSQG	TP
197 / 17	MOUNTAIN VIEW ESTATE		WA ALLSITES	TP
AU198 / 17	SAFEWAY FUEL 1528	715 SW MT SI BLVD	WA CSCSL, WA LUST, WA UST, WA ALLSITES	TP
AU199 / 17	SAFEWAY FUEL 1528	715 SW MT SI BLVD	WA Financial Assurance	TP
AU200 / 17	SAFEWAY	715 W MOUNT SI BLVD	WA SPILLS	TP
AU201 / 17	SAFEWAY FUEL 1528	715 SW MT SI BLVD	WA RGA LUST	TP
AU202 / 17	SAFEWAY FUEL #1528	715 SW MT SI BLVD	WA RGA LUST	TP
AU203 / 17	SAFEWAY FUEL CENTER	715 SW MT SI BLVD	WA RGA LUST	TP
204 / 18	MT SI BRIDGE 2550A		WA ALLSITES, WA NPDES	TP
AW205 / 17		448 SE MAPLE DRIVE E	WA ASBESTOS	TP
AW206 / 17		448 MAPLE DRIVE ALL	WA ASBESTOS	TP
207 / 18	NORTH BEND CITY	1155 E NORTH BEND WA	WA ALLSITES, RCRA NonGen / NLR, FINDS, E...	TP
AX208 / 17	VECTOR CONSTRUCTION	12540 412TH AVE SE	WA ALLSITES	TP
AX209 / 17	VECTOR CONSTRUCTION	12540 412TH AVE SE	FINDS	TP
AY210 / 17	MALONEY GROVE 9 LOT	701 MALONEY GROVE AV	ECHO	TP
AY211 / 17	MALONEY GROVE 9 LOT	701 MALONEY GROVE AV	WA ALLSITES, WA ASBESTOS	TP
AY212 / 17	MALONEY GROVE 9 LOT	701 MALONEY GROVE AV	FINDS	TP
AZ213 / 18	SMITTYS INC	1410 E NORTH BEND WA	WA ALLSITES	TP
AZ214 / 18	SMITTYS INC	1410 E NORTH BEND WA	FINDS	TP
AZ215 / 18	SNOQUALMIE VALLEY AP	42700 SE NORTH BEND	WA ALLSITES	TP
AZ216 / 18	42404 SE NORTH BEND	42404 SE NORTH BEND	FINDS	TP
AZ217 / 18	RON'S AUTO SERVICE	42620 SE NORTH BEND	EDR Hist Auto	TP
AZ218 / 18	NORTH BEND RANGER ST	42404 SE NORTH BEND	WA UST, WA ALLSITES	TP
AZ219 / 18	SNOQUALMIE VALLEY AP	42700 SE NORTH BEND	FINDS	TP
BA220 / 17	MALONEY GROVE 13	710 MALONEY GROVE AV	WA ALLSITES, WA ASBESTOS	TP
BA221 / 17	MALONEY GROVE 13	710 MALONEY GROVE AV	FINDS, ECHO	TP
BB222 / 18	ROWLEY ENTERPRISE/ M	43321 MT. SI ROAD SE	WA ICR	TP
BB223 / 18	ROWLEY ENTERPRISES M	43321 MT SI RD SE	WA ALLSITES, WA CSCSL NFA	TP
BB224 / 18	ROWLEY ENTERPRISES M	43321 MT SI RD SE	FINDS	TP
225 / 19			WA SPILLS	TP
226 / 19			WA SPILLS	TP
227 / 18	GRANITE LAKES QUARRY	MIDDLE FORK RD & GRA	FINDS	TP
228 / 17	NEAR 11.7 MILE OF E	NEAR 11.7 MILE OF E	US BROWNFIELDS, FINDS	TP
BC229 / 17	CEDAR FALLS DEVELOPM	INTER OF 424TH AVE S	FINDS, ECHO	TP
BC230 / 17	CEDAR FALLS DEVELOPM	INTER OF 424TH AVE S	WA ALLSITES	TP
231 / 18	LEVEL 3 COMMUNICATIO	43411 SE NORTH BEND	WA ALLSITES, FINDS	TP
232 / 19	I-90 NORTH BEND CORP	468TH AVE SE BW SE 1	WA NPDES	TP
BD233 / 18	APPLIED PROFESSIONAL	43530 SE NORTH BEND	RCRA NonGen / NLR	TP
BD234 / 18	APPLIED PROFESSIONAL	43530 SE NORTH BEND	WA MANIFEST	TP

MAPPED SITES SUMMARY

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BD235 / 18	APPLIED PROFESSIONAL	43530 SE NORTH BEND	FINDS, ECHO	TP
BD236 / 18	APPLIED PROFESSIONAL	43530 SE NORTH BEND	WA ALLSITES	TP
BE237 / 18	NORTH BEND COTTAGES		WA ALLSITES	TP
BE238 / 18	NORTH BEND COTTAGES	UNSPECIFIED	FINDS, ECHO	TP
239 / 18	DUMP SITE	444TH AVE SE	WA ALLSITES	TP
240 / 18	CEDAR FALLS SOUTH	13303 427TH AVE SE	WA ALLSITES, WA NPDES	TP
241 / 18		13306 427TH AVE SE	WA ASBESTOS	TP
BE242 / 18		CEDAR FALLS WAY	WA SPILLS	TP
243 / 18	CEDAR RIVER PARTNERS	44124 SE NORTH BEND	FINDS, ECHO	TP
BF244 / 18	MT SI VISTA (I 1) (D	13315 433RD CT SE	WA UIC	TP
BF245 / 18		13315 433RD CT SE KI	WA ASBESTOS	TP
BF246 / 18	MT SI VISTA (I 1) (D	13315 433RD CT SE	WA UIC	TP
BG247 / 18	BPA NORTH BEND RADIO	END OF RATTLESNAKE M	WA ALLSITES	TP
BG248 / 18	PSE RATTLESNAKE MT M	1441 389TH AVE SE	WA ALLSITES, FINDS	TP
BG249 / 18	AT&T WA0330 RTGWAQ35	RATTLESNAKE LEDGE RR	WA ALLSITES, FINDS	TP
BG250 / 18	AT&T NORTHBEND WA524	53000 SE FROUSE RIDG	WA ALLSITES, FINDS	TP
251 / 19	TANNER ROAD SUBDIVIS		WA ALLSITES	TP
252 / 18	KING COUNTY DEPT OF	4430 337 PL SE	WA UIC	TP
BH253 / 18	CHINOOK LUMBER	436TH AVE SE @ CEDAR	WA UIC	TP
BH254 / 18	CHINOOK LUMBER	436TH AVE SE @ CEDAR	WA UIC	TP
BH255 / 18	CHINOOK LUMBER	436TH AVE SE @ CEDAR	WA UIC	TP
BH256 / 18	CHINOOK LUMBER	436TH AVE SE @ CEDAR	WA UIC	TP
BI257 / 18	SUN RISE VIEW	42621 SE 134TH PL	FINDS, ECHO	TP
BI258 / 18		42621 134TH PL	WA ASBESTOS	TP
BI259 / 18	SUN RISE VIEW	42621 SE 134TH PL	WA ALLSITES, WA NPDES	TP
260 / 18	MT SI VISTA (I 2) (D	13500 434RD AVE SE	WA UIC	TP
261 / 18	CHINOOK LUMBER	436TH AVE SE CEDAR F	WA ALLSITES	TP
262 / 18		13513 434TH AVE SE,	WA ASBESTOS	TP
BJ263 / 18	3 LAKES QUARRY	43909 SE TANNER RD	ABANDONED MINES	TP
BJ264 / 18	3 LAKES QUARRY	43909 SE TANNER RD	US MINES	TP
265 / 18	CEDAR RIVER PARTNERS	44124 SE NORTH BEND	WA ALLSITES, WA ASBESTOS, WA NPDES	TP
266 / 18	MT SI VISTA (I 3) (D	13532 433RD PLACE SE	WA UIC	TP
BK267 / 18	ALLIED BLDG SUPPLIES	43516 SE 136TH ST	WA SPILLS	TP
BK268 / 18	RIVER RUN	43600 SE 136TH STREE	WA ALLSITES, WA NPDES	TP
BK269 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP
BK270 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP
BK271 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP
BK272 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP
BK273 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP

MAPPED SITES SUMMARY

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BK274 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP
BL275 / 18	PUGET SOUND POWER	44429 SE TANNER RD	WA RGA LUST	TP
BL276 / 18	PUGET SOUND POWER &	44429 SE TANNER RD	FINDS	TP
BL277 / 18	PUGET POWER TANNER M	44429 SE TANNER RD	WA RGA LUST	TP
BL278 / 18	PUGET SOUND POWER &	44429 SE TANNER RD	WA RGA LUST	TP
BL279 / 18	PUGET SOUND POWER &	44429 SE TANNER RD	WA LUST, WA UST, WA ICR, WA ALLSITES, WA...	TP
BL280 / 18	PUGET POWER TANNER M	44429 SE TANNER RD	WA RGA HWS	TP
BM281 / 19	MINERS RIDGE 24 LOT	13607 461ST AVE SE	WA ALLSITES	TP
BM282 / 19	MINERS RIDGE 24 LOT	13607 461ST AVE SE	FINDS, ECHO	TP
BN283 / 18		43030 SE 137TH PL TH	WA ASBESTOS	TP
BN284 / 18	CEDAR LANDING PHASES		WA ALLSITES	TP
BO285 / 19	TANNER FALLS RECLAMA	SE 140TH ST WESTERLY	FINDS, ECHO	TP
286 / 17		13803 424TH AVE SE C	WA ASBESTOS	TP
BO287 / 19	TANNERWOOD	SE 140	WA ALLSITES	TP
BP288 / 19	DAVID PIT		MINES MRDS	TP
289 / 18		13739 436TH AVE SE	WA SPILLS	TP
290 / 19	ULID NO 6 SEWER PIPE	468TH AVE	WA ALLSITES	TP
BP291 / 19	MAS RESOURCES INC JO	TANNER RD	WA ALLSITES, FINDS	TP
292 / 19	TANNER FALLS RECLAMA	SE 140TH ST WEST OF	WA ALLSITES, WA NPDES	TP
BQ293 / 19	WA DOT NORTH BEND	45000 SE 140TH ST	WA VCP	TP
BQ294 / 19	WA DOT NORTH BEND	45000 SE 140TH ST	WA ALLSITES, WA CSCSL NFA, FINDS	TP
BQ295 / 19	WA DOT NORTHBEND	45000 SE 140TH ST	WA RGA HWS	TP
296 / 18	AT&T WIRELESS TANNER	16550 487TH AVE SE	WA ALLSITES, FINDS	TP
BR297 / 19	TANNERWOOD A	SE 140TH ST AND 453N	WA ALLSITES	TP
BR298 / 19	TANNERWOOD	SE 140	FINDS, ECHO	TP
299 / 19	NW CASCADES INC	13805 457TH AVE SE	WA SPILLS	TP
300 / 18	CEDAR LANDING PHASES	UNSPECIFIED	FINDS, ECHO	TP
BS301 / 19	FURY SITE WORKS INC		US MINES	TP
BS302 / 19	TANNER FALLS	45100 NE 140TH SE	ABANDONED MINES	TP
303 / 18	KING COUNTY SHORT PL	44139 SE 136TH ST	WA UIC	TP
BT304 / 19	M.C. ANDERSON TRUCKI	44700 NORTH BEND WAY	WA ICR	TP
BT305 / 19	CHAMPION INTERNATION	200 FT S OF MIDDLE F	WA ALLSITES	TP
BT306 / 19	MC ANDERSON TRUCKING	44711 SE NORTHBEND W	FINDS	TP
BT307 / 19	MC ANDERSON TRUCKING	44711 SE NORTHBEND W	WA RGA LUST	TP
BT308 / 19	MC ANDERSON	44711 SE NORTHBEND	WA RGA LUST	TP
BT309 / 19	CHAMPION INTERNATION	200 FT S OF MIDDLE F	RCRA NonGen / NLR, FINDS, ECHO	TP
310 / 19		457TH AVE S	WA SPILLS	TP
311 / 19		45312 SE 140TH STREE	WA ASBESTOS	TP
BU312 / 18	IRON HORSE PARK	I 90 EXIT 32	WA UST	TP

MAPPED SITES SUMMARY

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BU313 / 18	IRON HORSE PARK	I90 EXIT 32	WA ALLSITES, FINDS	TP
314 / 19		I-90 WESTBOUND MILEP	WA SPILLS	TP
315 / 19	MC ANDERSON TRUCKING	44711 SE NORTHBEND W	WA LUST, WA UST, WA ALLSITES, WA CSCSL N...	TP
BV316 / 19	ESTATE OF DANIEL H C	45120 SE NORTH BEND	WA MANIFEST	TP
BV317 / 19	ENGINEERED COATING S	45120 SE NORTH BEND	WA RGA HWS	TP
BV318 / 19	ESTATE OF DANIEL H C	45120 SE NORTH BEND	WA HSL, WA CSCSL, WA ALLSITES, RCRA NonG...	TP
319 / 18			WA SPILLS	TP
320 / 19	PSE	44504 SE 142ND ST	WA SPILLS	TP
321 / 19	TANNER HEADQUARTERS		WA ALLSITES	TP
322 / 20	I90 CORPORATE PARK	46501 & 46511 SE NOR	WA ALLSITES, WA CSCSL NFA, FINDS	TP
323 / 20	SNOQUALMIE VALLEY SC	46837 SE MIDDLE FORK	WA ALLSITES, RCRA NonGen / NLR, FINDS, E...	TP
324 / 18	CEDAR VILLAGE DIVISI	14219 443RED PLACE S	WA UIC	TP
BW325 / 18	CASCADE GOLF COURSE	14303 436 AVE SE	FINDS	TP
BW326 / 18	CASCADE GOLF COURSE	14303 436 AVE SE	WA UST, WA ALLSITES	TP
327 / 18	PSE	43816 SE 143RD ST	WA SPILLS	TP
BX328 / 19	EM MATSON JR CO INC	45620 SE NORTH BEND	WA ALLSITES, FTTS, HIST FTTS, WA MANIFES...	TP
BX329 / 19	MATSON, LLC	45620 SE N BEND WAY	ICIS, FINDS, ECHO	TP
BX330 / 19	MATSON, LLC	45620 SE N BND WAY	SSTS	TP
BX331 / 19	E. M. MATSON JR CO.,	45620 S.E. N BEND WA	SSTS	TP
BX332 / 19	E.M. MATSON, JR. CO.	45620 S.E. N BEND WA	SSTS	TP
BX333 / 19	MATSON LLC DIV OF CE	45620 SE NORTH BEND	RCRA NonGen / NLR	TP
BX334 / 19	MATSON, LLC	45620 S.E. N BEND WA	SSTS	TP
BY335 / 19	NOR WEST MOBILE HOME	45810 SE NORTH BEND	FINDS, ECHO	TP
BY336 / 19	RESIDENT	45810 SE NORTH BEND	WA SPILLS	TP
BY337 / 19	FELON	45810 SE NORTHBEND W	WA SPILLS	TP
BZ338 / 18	CEDAR VILLAGE 4 (D90	43910 SE 143RD STREE	WA UIC	TP
339 / 18	KING CNTY SHORT PLAT	43610 SE 143RD PLACE	WA UIC	TP
CA340 / 19	TANNER ELECTRIC COOP	45710 SE NORTH BEND	WA UST, WA ALLSITES	TP
CA341 / 19	TANNER ELECTRIC COOP	45710 SE N BEND HWY	FTTS	TP
CA342 / 19	TANNER ELECTRIC COOP	45710 SE NORTH BEND	HIST FTTS	TP
CA343 / 19	TANNER ELECTRIC COOP	45710 SE N BEND HWY	HIST FTTS	TP
CA344 / 19	TANNER ELECTRIC COOP	45710 SE NORTH BEND	RCRA NonGen / NLR, FINDS, ECHO	TP
CA345 / 19	TANNER ELECTRIC COOP	45710 SE NORTH BEND	FTTS	TP
BZ346 / 18	CEDAR VILLAGE 4 (D90	43911 SE 143RD STREE	WA UIC	TP
CB347 / 20	PETROCARD INC NORTH	14220 468TH PL SE	WA ALLSITES	TP
CB348 / 20	PETROCARD INC NORTH	14220 468TH PL SE	FINDS	TP
349 / 19	EASTBOUND INTERSTATE	EB I90 MP 33	WA ALLSITES	TP
CC350 / 19	CASCADE DIESEL TRUCK	45830 SE NORTH BEND	FINDS	TP
CC351 / 19	CASCADE DIESEL TRUCK	45830 SE NORTH BEND	WA ALLSITES	TP

MAPPED SITES SUMMARY

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

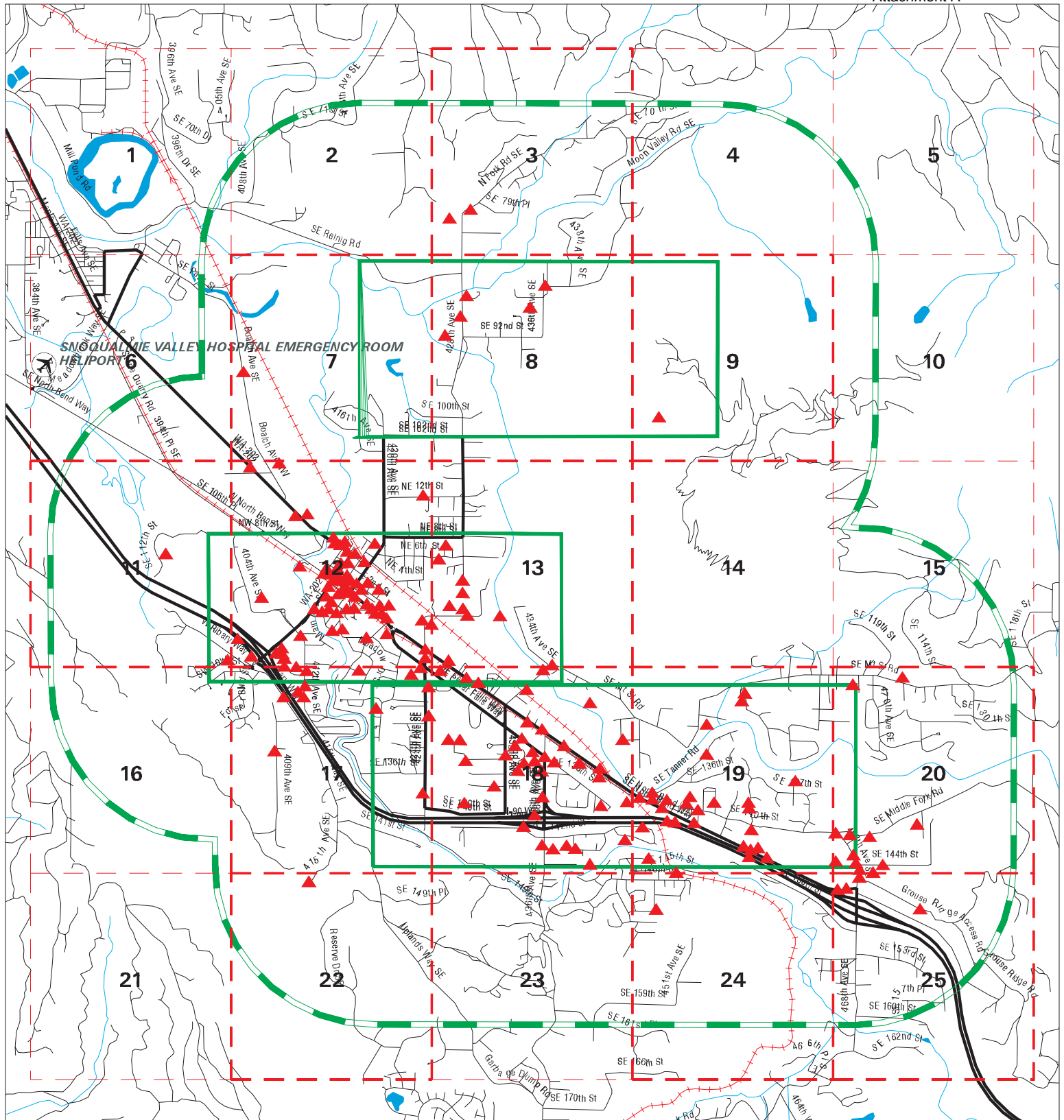
MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
352 / 19		44572 SE 144TH STREE	WA ASBESTOS	TP		
CD353 / 20	I90 NORTH BEND CORPO	SE NORTH BEND WAY	FINDS, ECHO	TP		
CD354 / 20	I90 NORTH BEND CORPO	SE NORTH BEND WAY	WA ALLSITES	TP		
355 / 18	KING CNTY SHORT PLAT	43930 SE 144TH LANE	WA UIC	TP		
356 / 18	SMITTYS TOWING AUTO	42998 SE NORTH BEND	WA ALLSITES	4	0.001	
357 / 20	SYSTEM TRANSPORT DIE	NWC 468TH AVE SE & S	WA ALLSITES, WA CSCSL NFA	14	0.003	East
358 / 20	KING CNTY DOT 468TH	468TH AVE SE CROSSIN	WA ALLSITES, RCRA NonGen / NLR, WA MANIF...	28	0.005	North
359 / 17	NEW SKY LLC	12700 412TH AVE SE	WA ALLSITES, WA NPDES	127	0.024	South
CE360 / 20	PETROCARD INC	14420 468TH AVE SE	WA UST	160	0.030	ESE
CE361 / 20	EDGEWICK VLG TEXACO	14420 468TH AVE SE	EDR Hist Auto	160	0.030	ESE
CE362 / 20	PETROCARD INC	14420 468TH AVE SE	WA ALLSITES, WA Financial Assurance	160	0.030	ESE
363 / 19	GRAY CONSTRUCTION &	14513 449TH AVE SE	EDR Hist Auto	171	0.032	South
CF364 / 17	CASCADE AUTOVON COMP	12727 412TH AVE SE	WA LUST, WA UST, WA ICR, WA ALLSITES, WA...	319	0.060	South
CF365 / 17	CASCADE AUTOVON CO	12727 412TH AVE SE	WA VCP	319	0.060	South
CG366 / 25	WARRIOR'S QUICK STOP	14500 468TH AVE SE	WA UST	353	0.067	SSE
CG367 / 25	KEN ROGERS	14500 468TH AVE SE	WA ALLSITES, WA SPILLS, WA Financial Ass...	353	0.067	SSE
CH368 / 20	GENIE TEREX STORAGE	46925 SE MIDDLE FORK	WA ALLSITES, WA ASBESTOS, WA NPDES	470	0.089	East
CH369 / 20	DVST INC	46925 SE MIDDLE FORK	EDR Hist Auto	470	0.089	East
370 / 17	NORTH BEND CITYRIBAR	E RIBARY WAY	WA ALLSITES, FINDS	494	0.094	South
CI371 / 17	AT&T CORP 412TH	12805 412TH AVE SE	RCRA NonGen / NLR, FINDS, ECHO	500	0.095	South
CI372 / 17	NORTH BEND B530350/N	12805 412TH AVE SE	WA UST, WA ALLSITES	500	0.095	South
373 / 20	LOOP VEHICLE MAINTEN		WA ALLSITES	607	0.115	ESE
CJ374 / 12	SI VIEW METROPOLITAN	901 BENDIGO BLVD N	RCRA NonGen / NLR	618	0.117	North
CJ375 / 12	SI VIEW METROPOLITAN	901 BENDIGO BLVD N	WA ALLSITES, WA MANIFEST	618	0.117	North
376 / 12	TOLLGATE FARM PARK T		WA ALLSITES	674	0.128	North
CK377 / 25	KENS TRUCK STOP	46630 SE NORTH BEND	WA LUST, WA SPILLS	695	0.132	South
CK378 / 25	TRAVEL CENTERS OF AM	46630 NORTH BEND WAY	WA ALLSITES	695	0.132	South
CK379 / 25	HPT TA PROPERTIES TR	46630 SE NORTH BEND	WA UST	695	0.132	South
CK380 / 25	HPT TA PROPERTIES TR	46630 SE NORTH BEND	WA ALLSITES, WA CSCSL NFA	695	0.132	South
CL381 / 25	HPT TA PROPERTIES TR	46600 SE NORTH BEND	WA ALLSITES, WA SPILLS, WA Financial Ass...	737	0.140	South
CL382 / 25	HPT TA PROPERTIES TR	46600 SE NORTH BEND	WA UST	737	0.140	South
CL383 / 25	PACIFIC PRIDE STATIO		WA ALLSITES	807	0.153	South
CM384 / 20	GENIE INDUSTRIES NOR	47020 SE 144TH ST	RCRA-VSQG	918	0.174	East
CM385 / 20	GENIE INDUSTRIES NOR	47020 SE 144TH ST	WA ALLSITES, WA MANIFEST	918	0.174	East
386 / 12	NURSERY THE AT MT SI	42328 SE 108TH ST	WA ALLSITES	1300	0.246	North
387 / 24	PEARCE INFILTRATION	14744 447TH AVE SE	WA ALLSITES	1405	0.266	South
388 / 11	NORTH BEND DRUM	1610 NW 8TH ST	WA ALLSITES, RCRA NonGen / NLR, FINDS, E...	1427	0.270	West
389 / 3	NORMAN BROOK FARM IN	8000 N FORK RD	WA ALLSITES, FINDS	1447	0.274	North
390 / 20	MOUNT TENERIFFE TRAI		WA ALLSITES	1575	0.298	East

MAPPED SITES SUMMARY

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
391 / 3	NORTHFORK ENTERPRISE	7830 NORTHFORK RD	WA SWF/LF	1742	0.330	North
392 / 20	KING CNTY DOT NORTH	MIDDLE FORK RD SE	WA ALLSITES, WA NPDES	2055	0.389	East
393 / 22	FURY CONSTRUCTION CO	14536 415TH AVE SE	WA UST, WA ALLSITES	2209	0.418	WSW
394 / 12	SNOQUALMIE VALLEY AT	1422 BENDIGO BLVD N	WA ALLSITES	2248	0.426	North
395 / 17	ATT MOBILITY MOUNTAI	13323 409TH AVE SE	WA ALLSITES	2298	0.435	South
396 / 12	SNOQUALMIE VALLEY YO	152 BOALCH AVE NW	WA ALLSITES, WA NPDES	2374	0.450	North
397 / 25	CADMAN INC NORTH BEN	47320 SE GROUSE RIDG	WA SWF/LF, WA ALLSITES, WA NPDES	2570	0.487	ESE
398 / 7	SHULTZ DISTRIBUTING	9120 BOALCH AVE SE	WA CSCSL, WA LUST, WA ALLSITES	3896	0.738	West



- ▲ Sites
- Target Property
- Search Buffer
- Focus Map - No Sites
- Focus Map - Sites
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA

0 1/2 1 Miles

SITE NAME: City of North Bend Well Head Protection Plan
 ADDRESS: City of North Bend Well Head Protection Plan
 CITY/STATE: North Bend WA
 ZIP: 98045

CLIENT: Golder Associates, Inc.
 CONTACT: Jay Pietraszek
 INQUIRY #: 5992688.2s
 DATE: 03/05/20 11:30 AM

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>STANDARD ENVIRONMENTAL RECORDS</u>								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250	2	0	1	NR	NR	NR	3
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP	2	NR	NR	NR	NR	NR	2
<i>State- and tribal - equivalent NPL</i>								
WA HSL	1.000	3	0	0	0	0	NR	3
<i>State- and tribal - equivalent CERCLIS</i>								
WA CSCSL	1.000	8	0	0	0	1	NR	9
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
WA SWF/LF	0.500	1	0	0	2	NR	NR	3
<i>State and tribal leaking storage tank lists</i>								
WA LUST	0.500	12	1	1	0	NR	NR	14

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
WA UST	0.250	23	4	2	NR	NR	NR	29
WA AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
WA INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
WA VCP	0.500	6	1	0	0	NR	NR	7
WA ICR	0.500	10	1	0	0	NR	NR	11
INDIAN VCP	0.500		0	0	0	NR	NR	0
WA PTAP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
WA BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500	2	0	0	0	NR	NR	2
Local Lists of Landfill / Solid Waste Disposal Sites								
WA SWTIRE	0.500		0	0	0	NR	NR	0
WA SWRCY	0.500	3	0	0	0	NR	NR	3
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
WA ALLSITES	0.500	97	12	7	10	NR	NR	126
WA CDL	TP		NR	NR	NR	NR	NR	0
WA HIST CDL	TP	1	NR	NR	NR	NR	NR	1
WA CSCSL NFA	0.500	10	2	1	0	NR	NR	13
US CDL	TP		NR	NR	NR	NR	NR	0
WA PFAS	0.500		0	0	0	NR	NR	0
WA AQUEOUS FOAM	0.500		0	0	0	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
WA SPILLS	TP	33	NR	NR	NR	NR	NR	33
WA SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250	13	3	0	NR	NR	NR	16
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP	4	NR	NR	NR	NR	NR	4
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP	1	NR	NR	NR	NR	NR	1
FTTS	TP	5	NR	NR	NR	NR	NR	5
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP	5	NR	NR	NR	NR	NR	5
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250	2	0	0	NR	NR	NR	2
ABANDONED MINES	0.250	2	0	0	NR	NR	NR	2
FINDS	TP	86	NR	NR	NR	NR	NR	86
ECHO	TP	39	NR	NR	NR	NR	NR	39
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
WA AIRS	TP		NR	NR	NR	NR	NR	0
WA ASBESTOS	TP	29	NR	NR	NR	NR	NR	29
WA COAL ASH	0.500		0	0	0	NR	NR	0
WA DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WA Financial Assurance	TP	5	NR	NR	NR	NR	NR	5
CA HAZNET	TP	1	NR	NR	NR	NR	NR	1
WA Inactive Drycleaners	0.250		0	0	NR	NR	NR	0
WA MANIFEST	0.250	8	2	1	NR	NR	NR	11
WA NPDES	TP	14	NR	NR	NR	NR	NR	14
WA UIC	TP	27	NR	NR	NR	NR	NR	27

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MINES MRDS	TP	6	NR	NR	NR	NR	NR	6
<u>EDR HIGH RISK HISTORICAL RECORDS</u>								
<i>EDR Exclusive Records</i>								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125	20	3	NR	NR	NR	NR	23
EDR Hist Cleaner	0.125	4	0	NR	NR	NR	NR	4
<u>EDR RECOVERED GOVERNMENT ARCHIVES</u>								
<i>Exclusive Recovered Govt. Archives</i>								
WA RGA HWS	TP	7	NR	NR	NR	NR	NR	7
WA RGA LF	TP	1	NR	NR	NR	NR	NR	1
WA RGA LUST	TP	19	NR	NR	NR	NR	NR	19
- Totals --		511	29	13	12	1	0	566

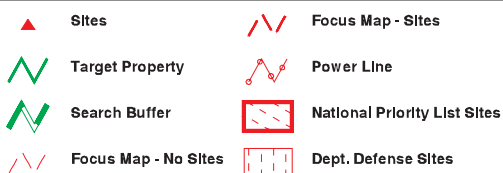
NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Attachment A



CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

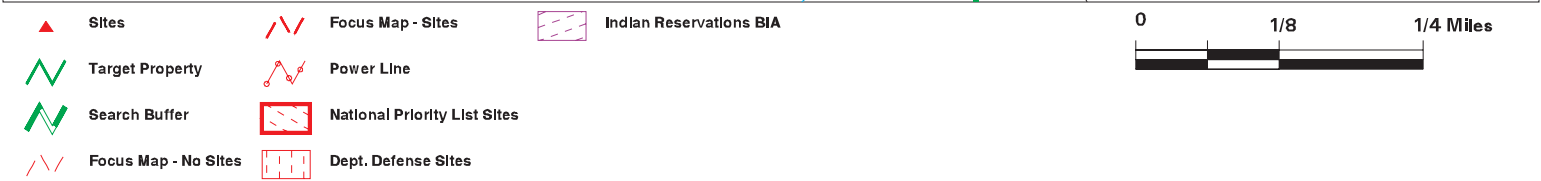
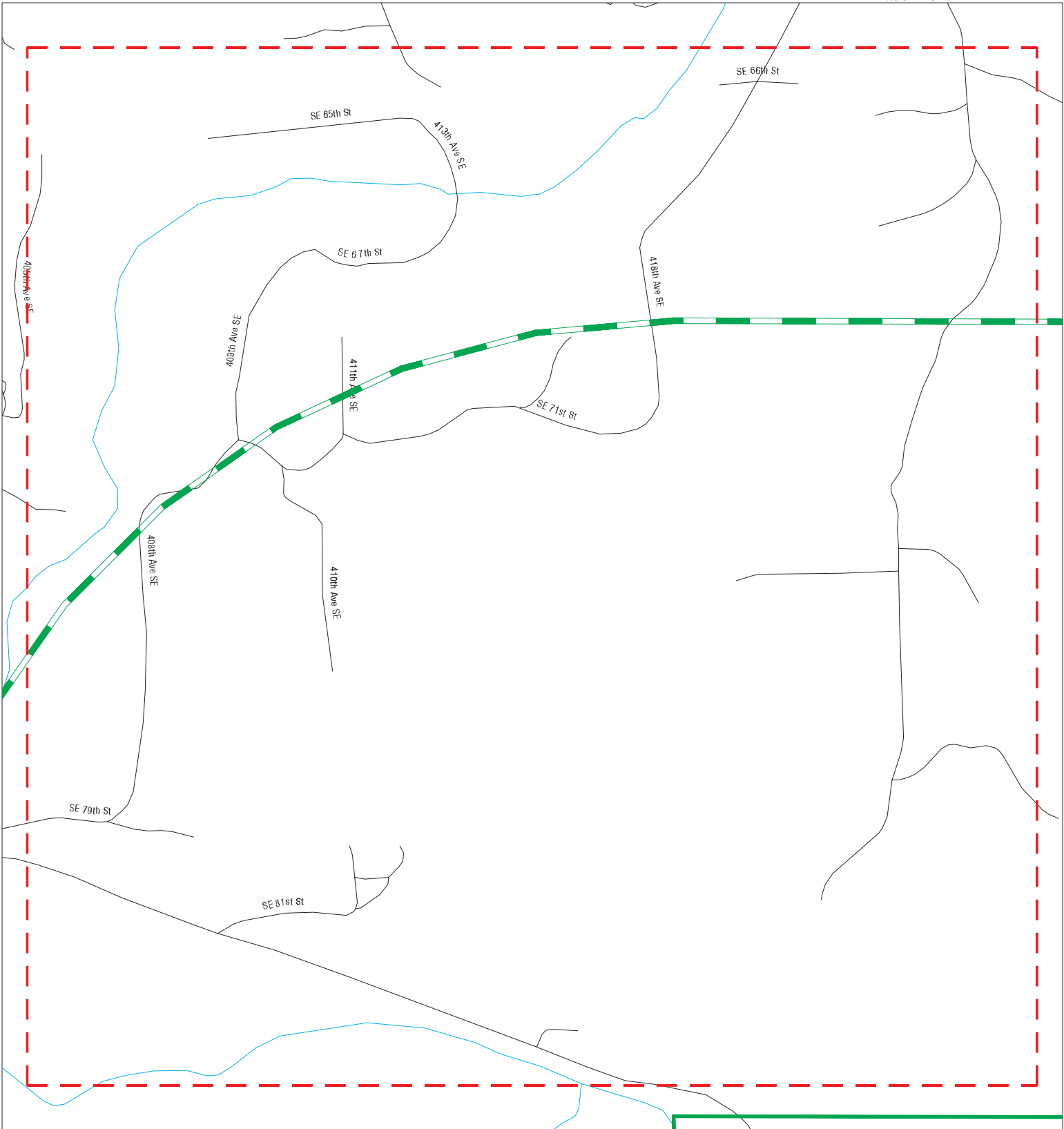
MAPPED SITES SUMMARY - FOCUS MAP 1

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND



SITE NAME: City of North Bend Well Head Protection Plan ADDRESS: City of North Bend Well Head Protection Plan CITY/STATE: North Bend WA ZIP: 98045	CLIENT: Golder Associates, Inc. CONTACT: Jay Pietraszek INQUIRY #: 5992688.2s DATE: 03/05/20
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MAPPED SITES SUMMARY - FOCUS MAP 2

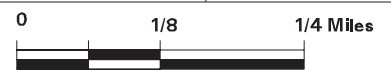
Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

Attachment A



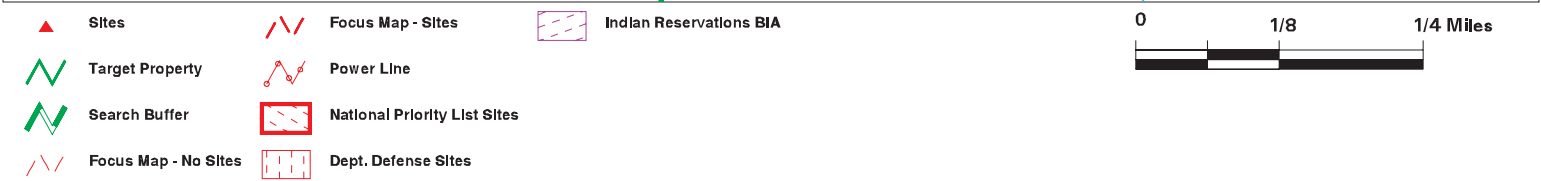
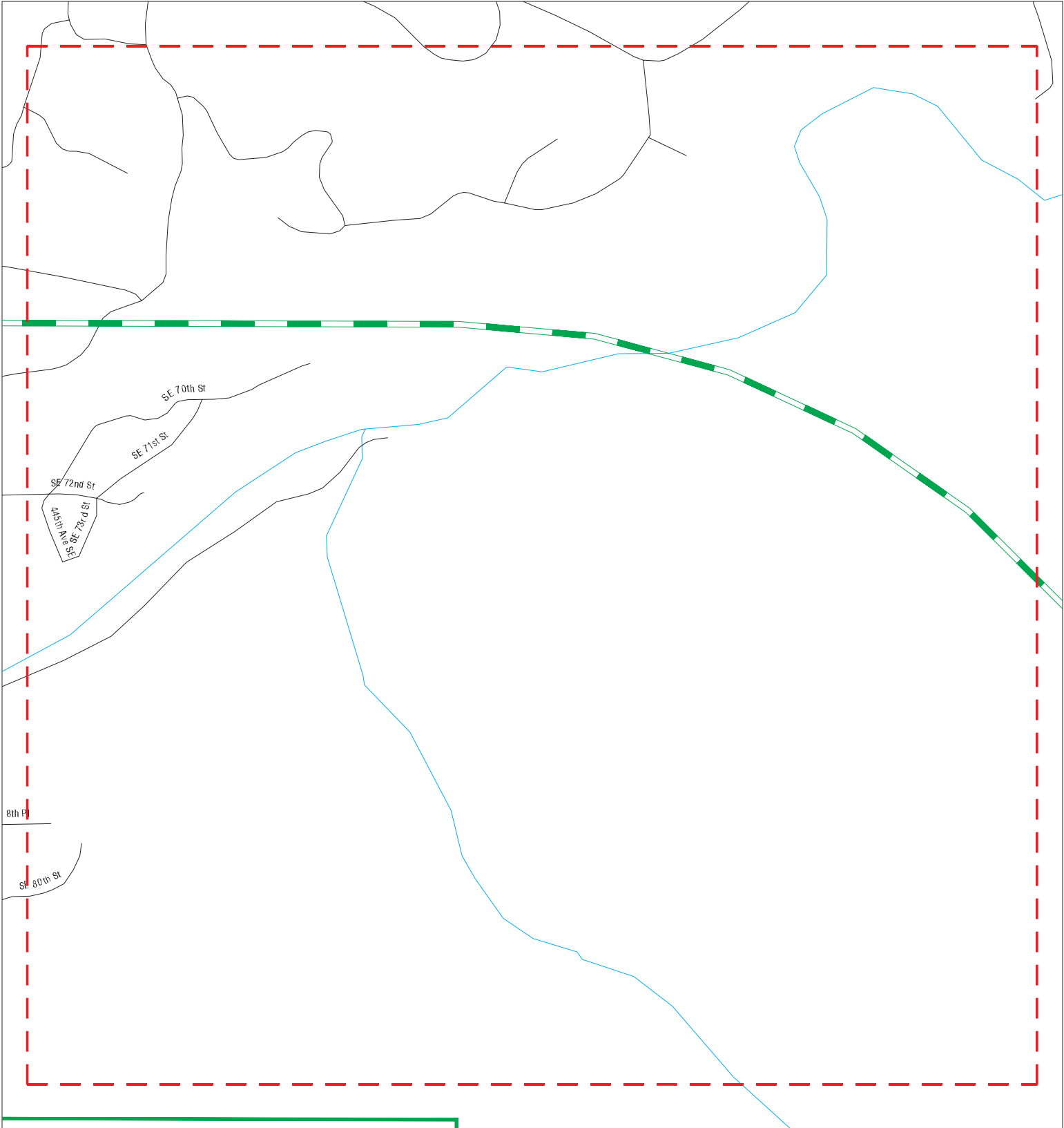
CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 3

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
389 / 3	NORMAN BROOK FARM IN	8000 N FORK RD	WA ALLSITES, FINDS	1447 0.274 North
391 / 3	NORTHFORK ENTERPRISE	7830 NORTHFORK RD	WA SWF/LF	1742 0.330 North



SITE NAME: City of North Bend Well Head Protection Plan	CLIENT: Golder Associates, Inc.
ADDRESS: City of North Bend Well Head Protection Plan	CONTACT: Jay Pietraszek
CITY/STATE: North Bend WA	INQUIRY #: 5992688.2s
ZIP: 98045	DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 4

Target Property:

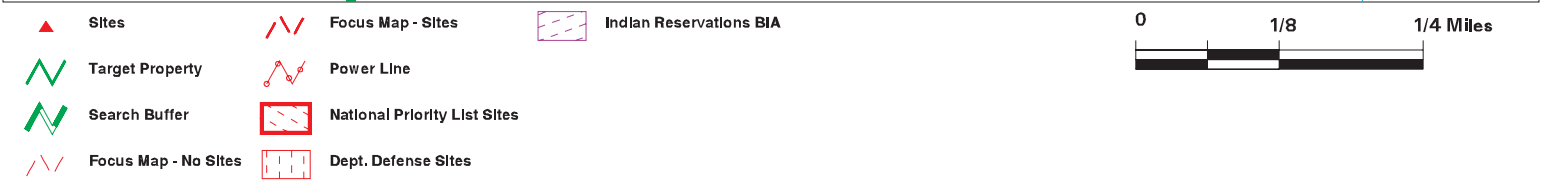
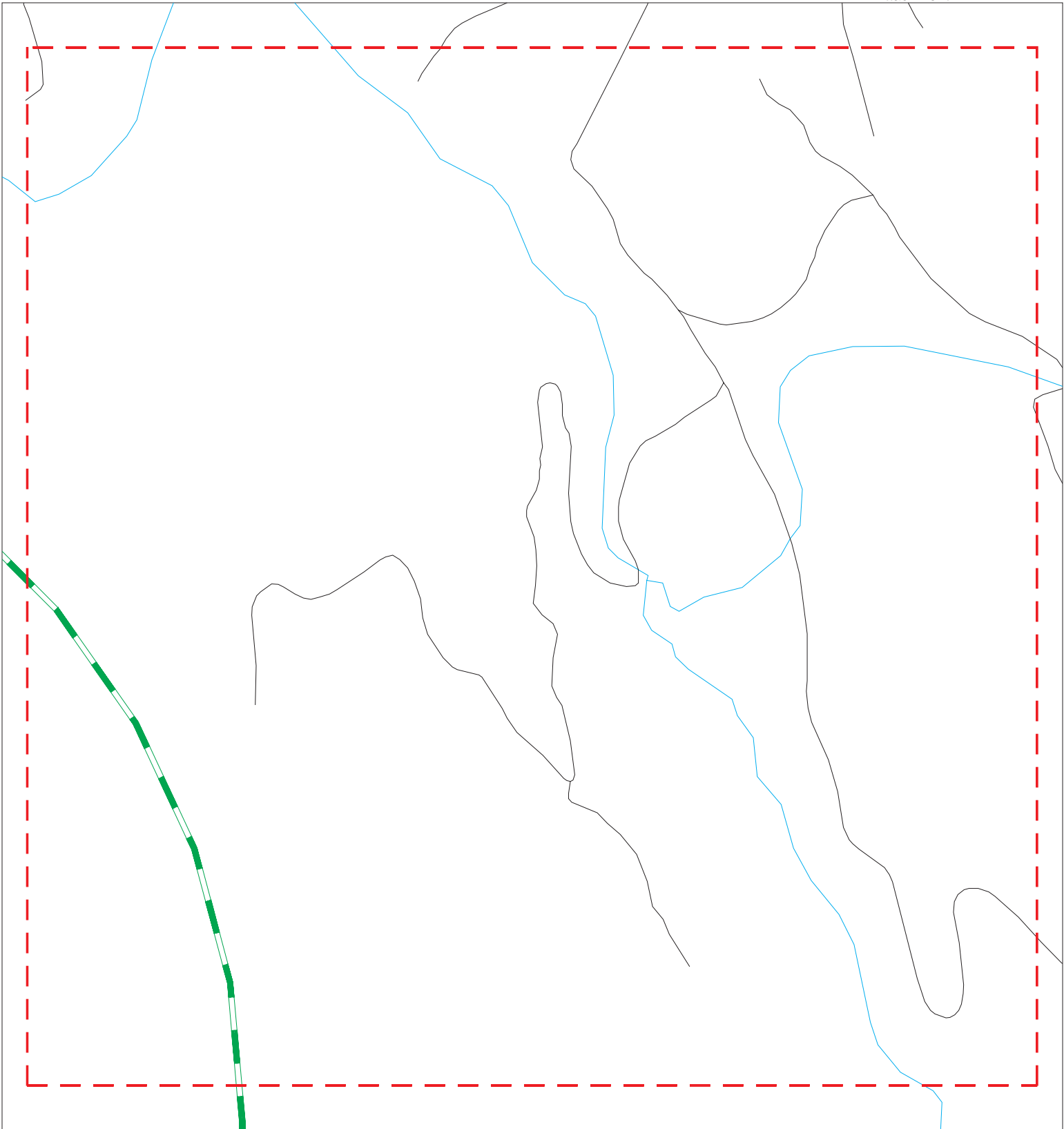
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND

Focus Map - 5 - 5992688.2s

Attachment A



SITE NAME: City of North Bend Well Head Protection Plan		CLIENT: Golder Associates, Inc.	
ADDRESS: City of North Bend Well Head Protection Plan		CONTACT: Jay Pietraszek	
CITY/STATE: North Bend WA		INQUIRY #: 5992688.2s	
ZIP: 98045		DATE: 03/05/20	

MAPPED SITES SUMMARY - FOCUS MAP 5

Target Property:










CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

Attachment A



- | | | | | | |
|---|----------------------|---|------------------------------|---|-------------------------|
|  | Sites |  | Focus Map - Sites |  | Indian Reservations BIA |
|  | Target Property |  | Power Line | | |
|  | Search Buffer |  | National Priority List Sites | | |
|  | Focus Map - No Sites |  | Dept. Defense Sites | | |

CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

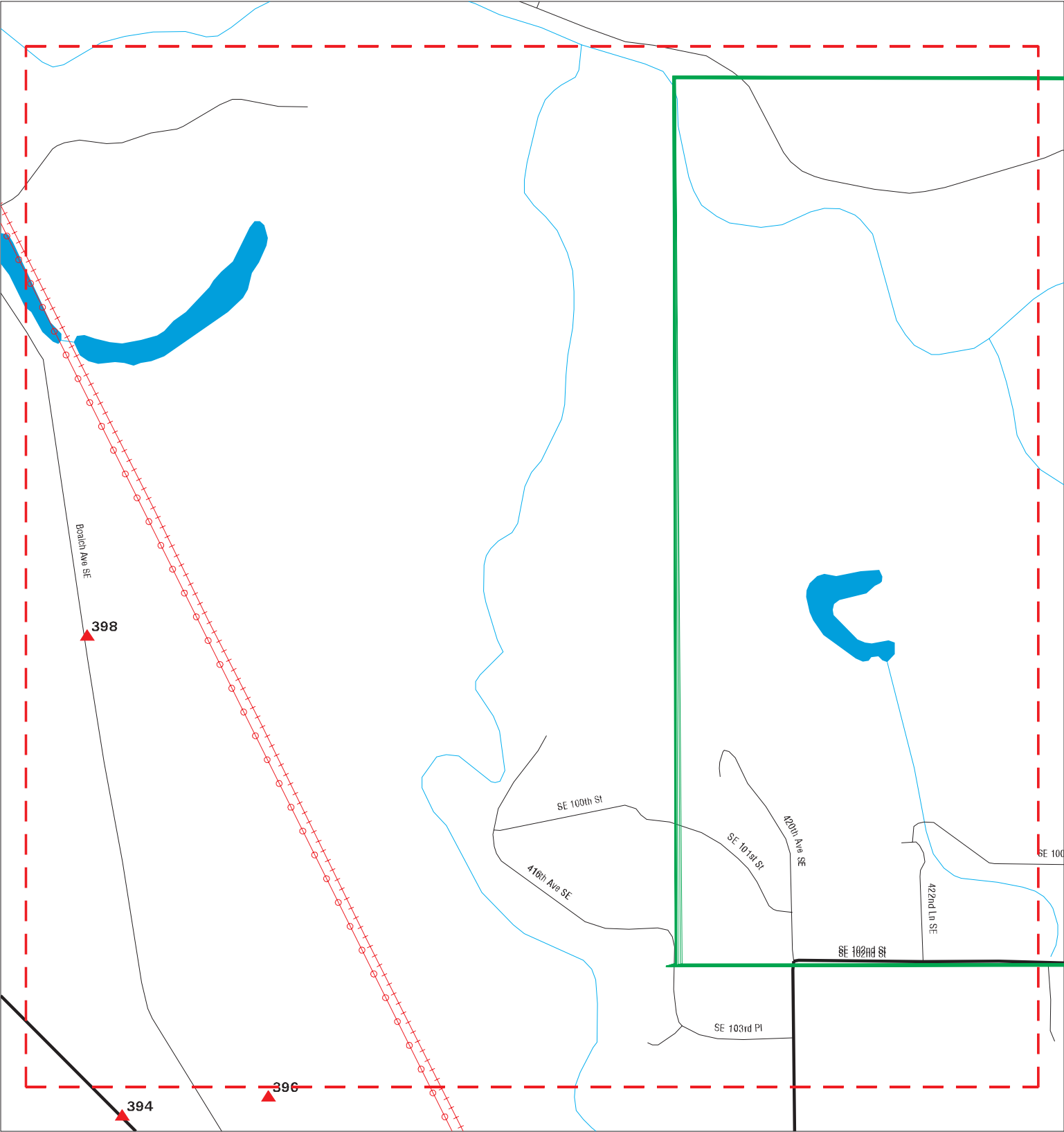
MAPPED SITES SUMMARY - FOCUS MAP 6

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND



- Sites
- Target Property
- Focus Map - Sites
- Power Line
- Search Buffer
- National Priority List Sites
- Focus Map - No Sites
- Dept. Defense Sites
- Indian Reservations BIA



SITE NAME: City of North Bend Well Head Protection Plan
ADDRESS: City of North Bend Well Head Protection Plan
CITY/STATE: North Bend WA
ZIP: 98045

CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

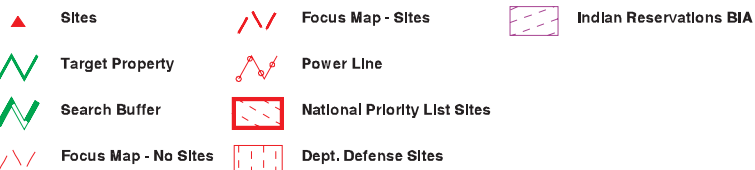
MAPPED SITES SUMMARY - FOCUS MAP 7

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
398 / 7	SHULTZ DISTRIBUTING	9120 BOALCH AVE SE	WA CSCSL, WA LUST, WA ALLSITES	3896 0.738 West

Attachment A

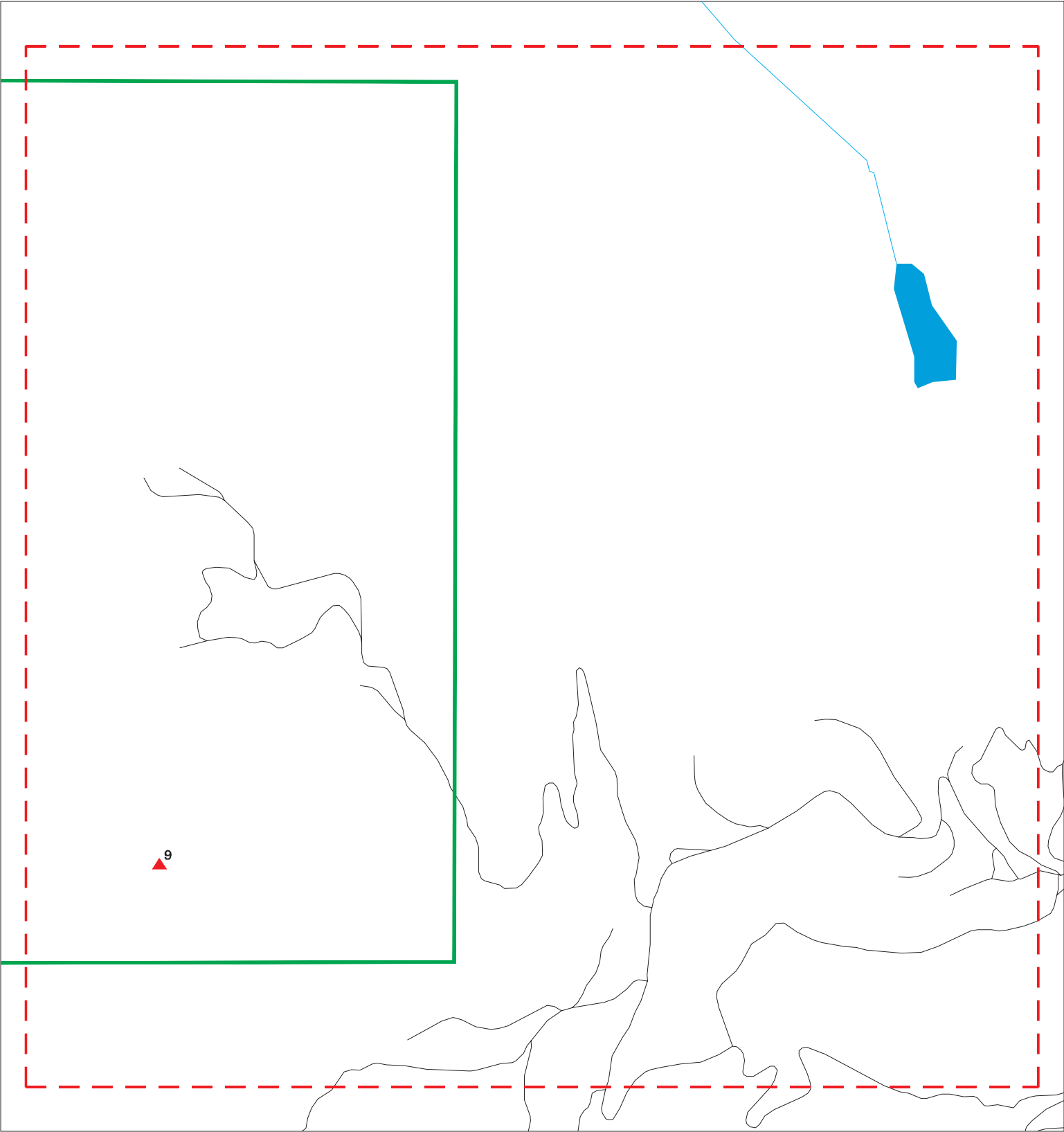


CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
A1 / 8	UNKNOWN	8621 436TH PL SE - S	WA SPILLS	TP
A2 / 8	UNKNOWN	8621 436TH PL SE	WA HIST CDL, WA SPILLS	TP
B3 / 8	SHAKE MILL LEFT BANK	8716 428TH AVE SE	WA ALLSITES, WA NPDES	TP
B4 / 8	KING CNTY NORTH FORK	T24N R83 S34	WA ALLSITES, RCRA NonGen / NLR	TP
B5 / 8	KING CNTY NORTH FORK	T24N R83 S34	FINDS, ECHO	TP
6 / 8	PREVIOUS OWNER	43404 SE 92ND ST.	WA SPILLS	TP
7 / 8		9027 428TH AVENUE SE	WA ASBESTOS	TP
8 / 8	SCHLOCK PIT		MINES MRDS	TP



<div>SITE NAME: City of North Bend Well Head Protection Plan</div> <div>ADDRESS: City of North Bend Well Head Protection Plan</div> <div>CITY/STATE: North Bend WA</div> <div>ZIP: 98045</div>	<div>CLIENT: Golder Associates, Inc.</div> <div>CONTACT: Jay Pietraszek</div> <div>INQUIRY #: 5992688.2s</div> <div>DATE: 03/05/20</div>
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MAPPED SITES SUMMARY - FOCUS MAP 9

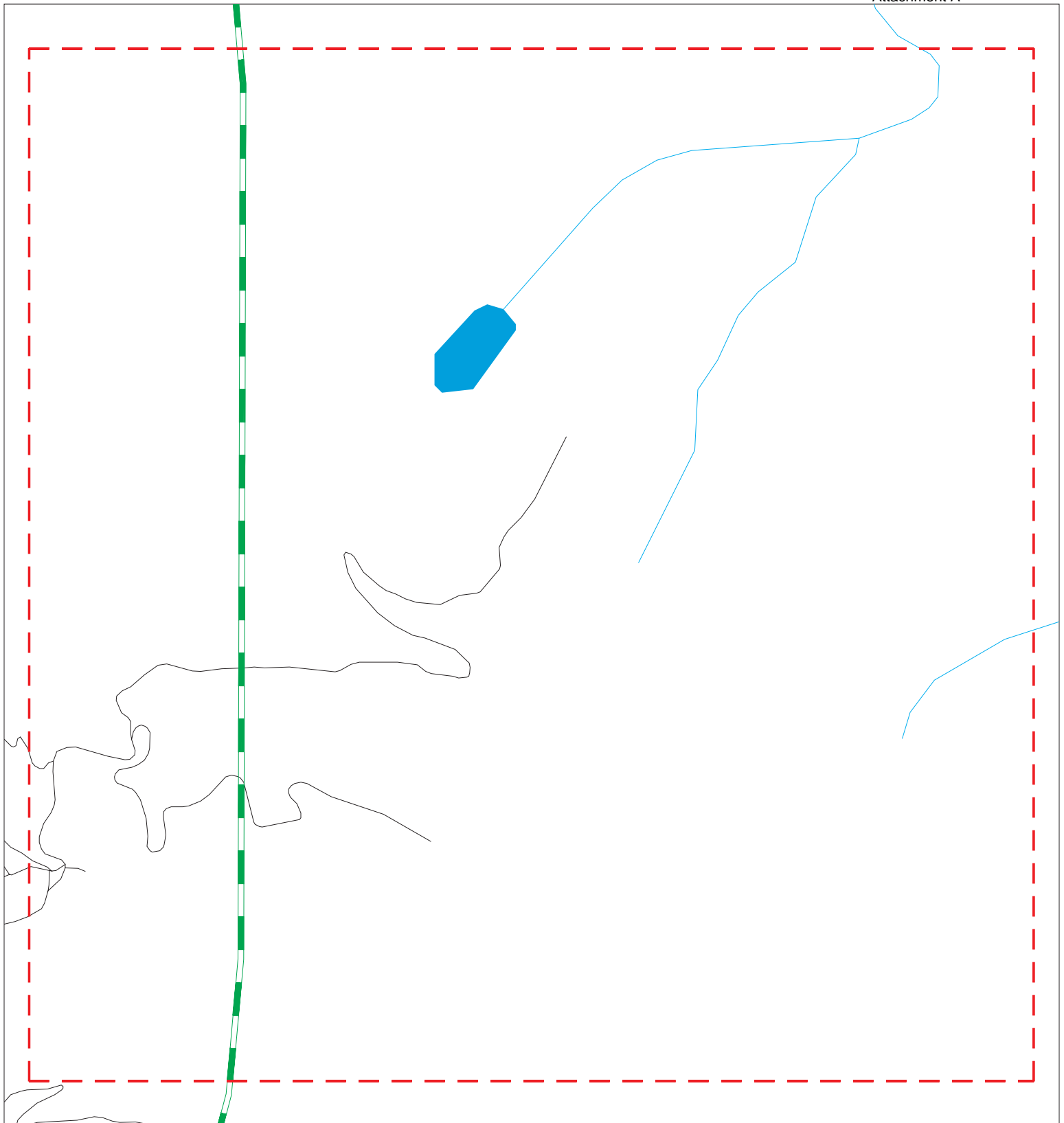
Target Property:










CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
9 / 9	ANNIE		MINES MRDS	TP

Focus Map - 10 - 5992688.2s

Attachment A



- | | | | | | |
|--|----------------------|---|---------------------|---|------------------------------|
|  | Sites |  | Focus Map - Sites |  | Indian Reservations BIA |
|  | Target Property |  | Power Line |  | National Priority List Sites |
|  | Search Buffer |  | Dept. Defense Sites | | |
|  | Focus Map - No Sites | | | | |



SITE NAME: City of North Bend Well Head Protection Plan
 ADDRESS: City of North Bend Well Head Protection Plan
 CITY/STATE: North Bend WA
 ZIP: 98045

CLIENT: Golder Associates, Inc.
 CONTACT: Jay Pietraszek
 INQUIRY #: 5992688.2s
 DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 10

Target Property:










CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

Attachment A



- | | | | | | |
|---|----------------------|---|------------------------------|---|-------------------------|
|  | Sites |  | Focus Map - Sites |  | Indian Reservations BIA |
|  | Target Property |  | Power Line | | |
|  | Search Buffer |  | National Priority List Sites | | |
|  | Focus Map - No Sites |  | Dept. Defense Sites | | |

CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

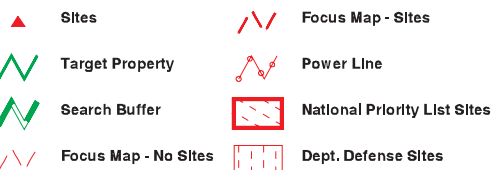
MAPPED SITES SUMMARY - FOCUS MAP 11

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
178 / 11		1525 ROCK CREEK RIDG	WA SPILLS	TP
388 / 11	NORTH BEND DRUM	1610 NW 8TH ST	WA ALLSITES, RCRA NonGen / NLR, FINDS, E...	1427 0.270 West

Attachment A



CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 12

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
C10 / 12		NORTH BEND TREATMENT	WA SPILLS	TP
C11 / 12	NORTH BEND WWTP	400 BENDIGO BOULEVAR	WA RGA LF	TP
C12 / 12	NORTH BEND STP	400 BENDIGO BLVD N	FINDS, ECHO	TP
C13 / 12	NORTH BEND WASTEWATE	400 BENDIGO BLVD N	WA SWF/LF, WA ALLSITES, WA NPDES	TP
14 / 12	NORTH BEND CITY OF	400 NORTHBEND BLVD N	WA UST	TP
15 / 12	NORTH BEND WWTP	400 BENDIGO	WA ALLSITES	TP
16 / 12		106 E 6TH ST	WA SPILLS	TP
D17 / 12	ULID NO.6 PUMP STATI	356 BENDIGO BLVD N	FINDS, ECHO	TP
D18 / 12	ULID NO 6 PUMP STATI	356 BENDIGO BLVD N	WA ALLSITES	TP
20 / 12		336 BENDIGO BLVD N	WA ASBESTOS	TP
21 / 12	PARK AND RIDE & STRE	NORTH BEND WAY SYDNE	FINDS	TP
E23 / 12	NORTH BEND COMMUNITY	126 E 4TH ST	WA VCP	TP
E24 / 12	NORTH BEND COMMUNITY	126 E 4TH	WA CSCSL, WA ALLSITES, FINDS	TP
E25 / 12	NORTH BEND COMMUNITY	126 E 4TH	WA RGA HWS	TP
E26 / 12	NORTH BEND COMMUNITY	126 E 4TH	WA RGA LUST	TP
E27 / 12	NORTH BEND COMMUNITY	126 E 4TH	WA RGA LUST	TP
E28 / 12	NORTH BEND COMMUNITY	126 E. 4TH	WA ICR	TP
F29 / 12	NORTH BEND TESORO	302 BENDIGO BLVD N	EDR Hist Auto	TP
G30 / 12	CAMP BROWN QUARRY		MINES MRDS	TP
F31 / 12	MAINLINE 100 PIT		MINES MRDS	TP
H32 / 12	OLYMPUS JOB 91 3593	S SIDE 101ST ST 1 BL	WA ALLSITES	TP
H33 / 12	OLYMPUS JOB 91 3593	S SIDE 101ST ST 1 BL	FINDS, ECHO	TP
G34 / 12	G & S SERVICES INC	225 BENDIGO BLVD N	EDR Hist Auto	TP
35 / 12		212 W SECOND ST THRO	WA ASBESTOS	TP
I36 / 12	MOFFAT DISTRIBUTING	107 SIDNEY ST N	EDR Hist Auto	TP
I37 / 12	BRYANS ONE STOP	302 W NORTH BEND WAY	WA RGA LUST	TP
I38 / 12	BRYANS ONE STOP	302 W NORTH BEND WAY	WA HSL, WA CSCSL, WA LUST, WA UST, WA AL...	TP
I39 / 12	BRYAN'S ONE STOP	302 W NORTH BEND WAY	WA RGA LUST	TP
I40 / 12	NORTH BEND TESORO	302 W NORTH BEND WAY	WA RGA LUST	TP
41 / 12	CHEVRON - NORTH BEND	302 NORTH BEND WAY	WA ICR	TP
J42 / 12	KING CNTY DOT 428TH	428TH AVE SE CROSSIN	WA ALLSITES, RCRA NonGen / NLR	TP
J43 / 12	KING CNTY DOT 428TH	ON 428TH AVE SE CROS	FINDS, ECHO	TP
K44 / 12	NORTH BEND CY OF	211 MAIN AV N	FTTS	TP
K45 / 12	NORTH BEND CY OF	211 MAIN AV N	HIST FTTS	TP
L46 / 12		128 BENDIGO BLVD NOR	WA ASBESTOS	TP
J47 / 12	WA DOT BRG 202/066	MP 29.50-29.59	FINDS, ECHO	TP
L48 / 12	WA DOT BRG 202/066	MP 29.50-29.59	WA ALLSITES, WA MANIFEST	TP
M49 / 12	TELEPHONE UTILITIES	131 2ND ST EAST	WA UST	TP
M50 / 12	PACIFIC TELECOM	131 2ND ST. E.	WA ICR	TP

MAPPED SITES SUMMARY - FOCUS MAP 12

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
O53 / 12	TOLLGATE FARM PARK	N BEND WAY & BENDIGO	WA ALLSITES	TP
M54 / 12		142 MAIN AVE N	WA ASBESTOS	TP
O55 / 12	NORTH BEND CHEVRON	201 W NORTH BEND WAY	EDR Hist Auto	TP
P56 / 12		111 MAIN AVE N.	WA ASBESTOS	TP
P57 / 12	SALLAL WATER ASSOC	107 MAIN AVE N	FTTS, HIST FTTS	TP
P58 / 12	LOVELAND CHEVROLET	106 MAIN ST	FINDS	TP
M59 / 12	TELEPHONE UTILITIES	131 2ND ST E	FINDS	TP
60 / 12		235 EAST 3RD STREET	WA ASBESTOS	TP
P61 / 12	CHAPLINS NORTH BEND	106 MAIN AVE N	WA UST, WA ALLSITES, RCRA NonGen / NLR, ...	TP
62 / 12	WA DNR NORTH BEND	205 BALLARET	FINDS	TP
M63 / 12	CENTURYTEL NORTH BEN	131 2ND AVE E	WA LUST, WA ALLSITES, WA CSCSL NFA, FIND...	TP
Q64 / 12	FLOYDS COMPLETE SERV	106 E NORTH BEND WAY	WA UST, WA ALLSITES	TP
Q65 / 12	FLOYDS COMPLETE SERV	106 E NORTH BEND WAY	FINDS	TP
Q66 / 12	CLARKE FLOYD M	FIRST AVE E & MAIN	EDR Hist Auto	TP
R67 / 12	ARCO SELF SERVICE	201 N BEND BLVD N	EDR Hist Auto	TP
Q68 / 12	CLARKE FLOYD M	104 1ST AVE	EDR Hist Auto	TP
S69 / 12	RESIDENCE E 3RD ST	349 E 3RD ST	WA RGA LUST	TP
S70 / 12	RESIDENCE GREW	349 E 3RD ST	WA ALLSITES, WA CSCSL NFA, FINDS	TP
S71 / 12	RESIDENCE	349 E. 3RD ST.	WA ICR	TP
S72 / 12	RESIDENCE GREW	349 E 3RD ST	WA VCP	TP
S73 / 12	NORTH BEND ELEMENTAR	400 E 3RD ST	CA HAZNET	TP
T74 / 12	WA DNR NORTH BEND	205 BALLARET	WA UST, WA ALLSITES, WA CSCSL NFA	TP
T75 / 12	DNR NORTH BEND	223 E 2ND ST	WA LUST	TP
T76 / 12	DEPARTMENT OF NATURA	223 E. 2ND ST.	WA ICR	TP
R77 / 12	G & S SERVICES INC	225 N BEND BLVD N	EDR Hist Auto	TP
U78 / 12	FALLS LAUNDRY INC	125 E NORTH BEND WAY	EDR Hist Cleaner	TP
79 / 12	WALLACE WARREN A	FIRST & BALLARD	EDR Hist Auto	TP
V81 / 12	VIRGINIA MASON MED C	248 MAIN AVE S	WA LUST, WA ALLSITES, WA CSCSL NFA	TP
V82 / 12	VIRGINIA MASON CLINI	248 MAIN AVE S	WA UST, WA ICR	TP
V83 / 12	VIRGINIA MASON MED C	248 MAIN AVE S	WA VCP	TP
V84 / 12	VIRGINIA MASON MED C	248 MAIN AVE S	FINDS	TP
V85 / 12	VIRGINIA MASON CLINI	248 MAIN AVE S	WA RGA LUST	TP
U86 / 12		NORTH BEND BAR & GRI	WA SPILLS	TP
W87 / 12	J.O. BORGEN PLAZA	248 BENDIGO BLVD S	FINDS, ECHO	TP
W88 / 12	LIGHTRECYCLE WASHING	248 BENDIGO BOULEVAR	WA SWRCY, WA ALLSITES	TP
X89 / 12	WYRSCH GEORGE A JR	221 1ST AVE E	EDR Hist Auto	TP
X90 / 12	WYRSCH GEORGE G	225 1ST AVE E	EDR Hist Auto	TP
91 / 12			WA SPILLS	TP
X92 / 12	NORTH BEND TEXACO	225 E NORTH BEND WAY	WA RGA LUST	TP

MAPPED SITES SUMMARY - FOCUS MAP 12

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
X93 / 12	TEXACO	225 E. NORTH BEND WA	WA ICR	TP
X94 / 12	WYRSCH GEORGE G	225 EAST NORTH BEND	EDR Hist Auto	TP
X95 / 12	NORTH BEND SHELL	225 E NORTH BEND WAY	WA HSL, WA CSCSL, WA LUST, WA UST, WA AL...	TP
X96 / 12	NORTH BEND TEXACO	225 E NORTH BEND WAY	FINDS	TP
W97 / 12	NORTH BEND CHEVRON	302 N BEND BLVD N	EDR Hist Auto	TP
98 / 12	METRO TRANSIT	MAIN AVE. SO. & EAST	WA SPILLS	TP
Y99 / 12	BUSY BEE STATION & C	352 E NORTH BEND WAY	WA UST, WA ALLSITES, FINDS	TP
Y100 / 12	DINGFORD CREEK TRAIL	NEAR DINGFORD CREEK	US BROWNFIELDS, FINDS	TP
Z101 / 12	KING CNTY DEEP CREEK	FURY LAKE RD 7.5 MI	WA ALLSITES	TP
102 / 12	KING COUNTY SECURE M	460 E NORTH BEND WAY	WA SWRCY	TP
Z103 / 12	KING CNTY DEEP CREEK	FURY LAKE RD 7.5 MI	FINDS, ECHO	TP
Y107 / 12	UNOCAL SERVICE STN 2	330 & 354 E NORTH BE	WA CSCSL, WA LUST, WA UST, WA ALLSITES, ...	TP
AB108 / 12		312 E. PARK ST.	ERNS	TP
AB109 / 12	PSE	312 E PARK ST	WA SPILLS	TP
AC110 / 12	NORTH BEND DRY CLEAN	400 E NORTH BEND WAY	WA ALLSITES	TP
AC111 / 12	NORTH BEND CLEANERS	400 E NORTH BEND WAY	EDR Hist Cleaner	TP
AC112 / 12	NORTH BEND DRY CLEAN	400 E NORTH BEND WAY	FINDS	TP
114 / 12	NORTH BEND STP	400 NORTH BEND BLVD	WA LUST, WA ALLSITES, WA CSCSL NFA, RCRA...	TP
AE115 / 12		216 E PARK NORTH	WA ASBESTOS	TP
116 / 12	LIGHTRECYCLE WASHING	330 MAIN AVE. S	WA SWRCY	TP
AC117 / 12	GRINA DONALD D	417 1ST AVE E	EDR Hist Auto	TP
AE118 / 12		228 E PARK AVE NORTH	WA ASBESTOS	TP
AF120 / 12		411 MAIN AVE. SOUTH	WA ASBESTOS	TP
121 / 12		316 CEDAR AVE S	WA ASBESTOS	TP
AG122 / 12		468 E NORTHBEND WAY	WA SPILLS	TP
AG123 / 12	NEIGHBORING GAS STAT	468 E NORTH BEND WY	WA SPILLS	TP
AH124 / 12	QFC SHOPPING CENTER	470 E NORTH BEND WAY	WA UST, WA ALLSITES	TP
AH125 / 12	QFC SHOPPING CENTER	470 E NORTH BEND WAY	FINDS	TP
AE126 / 12	NORTH BEND	215 E PARK	WA UST	TP
AE127 / 12	NORTH BEND	215 E PARK	WA ALLSITES, FINDS	TP
AF128 / 12	MOUNTSIDE DRY CLEAN	412 MAIN AVE S	EDR Hist Cleaner	TP
AH132 / 12		76 GAS STATION	WA SPILLS	TP
AH133 / 12	NORTH BEND 76	520 E NORTH BEND WAY	WA RGA HWS	TP
AH134 / 12	NORTH BEND 76	520 E NORTH BEND WAY	WA RGA LUST	TP
AH135 / 12	NORTH BEND GASOLINE,	520 E N BEND WAY	WA UIC	TP
AH136 / 12	STANDARD SERVICES &	520 E NORTH BAND WAY	EDR Hist Auto	TP
AH137 / 12		520 E NORTHBEND WY	WA SPILLS	TP
AH138 / 12		520 EAST NORTHBEND W	ERNS	TP
AH139 / 12	NORTH BEND 76	520 E NORTH BEND WAY	WA VCP	TP

MAPPED SITES SUMMARY - FOCUS MAP 12

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AH140 / 12	NORTH BEND 76	520 E NORTH BEND WAY	WA Financial Assurance	TP
AH141 / 12	NORTH BEND 76	520 E NORTH BEND WAY	WA CSCSL, WA LUST, WA UST, WA ALLSITES, ...	TP
AJ142 / 12	NORTH BEND 76	468 - 482 E NORTH BE	WA SPILLS	TP
143 / 12		209 THRASHER AVE	WA SPILLS	TP
AJ144 / 12	PHOENIX PLAZA	530 E NORTH BEND WAY	WA ALLSITES, WA NPDES	TP
AJ145 / 12		530-570 E. NORTH BEN	WA ASBESTOS	TP
AJ146 / 12	PHOENIX PLAZA	530 E NORTH BEND WAY	FINDS	TP
AJ147 / 12	PHOENIX PLAZA	530 E NORTH BEND WAY	ECHO	TP
148 / 12	RANGER STATION COTTA	SEC 424TH AVE SE & S	WA ALLSITES, WA NPDES	TP
149 / 12		424 HEALY AVE S	WA SPILLS	TP
150 / 12	APARTMENT MANAGER	MAIN AVE S & STOW AV	WA SPILLS	TP
AK151 / 12	ORCHARD PLACE APARTM	240 SE ORCHARD DR	WA ALLSITES, WA NPDES	TP
AK152 / 12	ORCHARD PLACE APARTM	240 SE ORCHARD DR	ECHO	TP
AK153 / 12	ORCHARD PLACE APARTM	240 SE ORCHARD DR	FINDS	TP
AL154 / 12	NORTH BEND GARDINER	400 S FORK AVE SW	WA ALLSITES, FINDS	TP
AL155 / 12	NINTENDO DISTRIBUTIO	401 S FORK AVE SW	WA ALLSITES	TP
AL156 / 12	NINTENDO DISTRIBUTIO	401 S FORK AVE SW	FINDS	TP
157 / 12	SI VIEW PARK AND POO	400 SE ORCHARD DR	WA ALLSITES, FINDS, ECHO	TP
158 / 12	NORTH BEND PIT - DIV		MINES MRDS	TP
AM159 / 12	GEORGE G WYRSCH	742 SW MT SI BLVD	FINDS	TP
AM160 / 12	MT SI SHELL	742 SW MT SI BLVD	WA Financial Assurance	TP
AM161 / 12	MT SI SHELL	742 SW MT SI BLVD	WA UST, WA ALLSITES	TP
AM162 / 12	MOUNT SI TEXACO	742 SW MT SI BLVD	EDR Hist Auto	TP
163 / 12		902 SE NORTH BEND WA	WA ASBESTOS	TP
AN164 / 12	MT SI CHEVRON	745 SW MT SI BLVD	WA UST, WA ALLSITES, WA Financial Assura...	TP
AN165 / 12	G & S SERVICES	745 SW MT SI BLVD	FINDS	TP
AN166 / 12	G & S SERVICES INC	745 SW MT SI BLVD	EDR Hist Auto	TP
AO167 / 12	SCHUCKS AUTO SUPPLY	400 SW MOUNT SI BLVD	WA ALLSITES	TP
AO168 / 12	SCHUCKS AUTO SUPPLY	400 SW MOUNT SI BLVD	FINDS	TP
AP169 / 12	WA DOT CAMP MASON US	SR I90 MP 42.29	FINDS, ECHO	TP
AP170 / 12	WA DOT CAMP MASON US	SR I90 MP 42.29	WA ALLSITES, RCRA NonGen / NLR	TP
AQ171 / 12	FIRE STATION 87	500 MALONEY GROVE AV	FINDS, ECHO	TP
AQ172 / 12	FIRE STATION 87	500 MALONEY GROVE AV	WA ALLSITES	TP
AR173 / 12	ANDRES DRYCLEANER	458 SW MT SI BLVD	EDR Hist Cleaner	TP
AR174 / 12	MICHAELS FINE DRY CL	458 SW MT SI BLVD	WA ALLSITES	TP
AR175 / 12	MICHAELS FINE DRY CL	458 SW MT SI BLVD	FINDS	TP
AQ176 / 12	SI VIEW ESTATES 28 L	1045 MALONEY GROVE A	FINDS, ECHO	TP
AQ177 / 12	SI VIEW ESTATES 28 L	1045 MALONEY GROVE A	WA ALLSITES	TP
AQ180 / 12		910 MALONEY GROVE AV	WA ASBESTOS	TP

MAPPED SITES SUMMARY - FOCUS MAP 12

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
AU189 / 12	GAS STATION	721 SW MT SI BLVD	WA SPILLS	TP
AU190 / 12	NORTH BEND 76	721 SW MT SI BLVD	EDR Hist Auto	TP
AU191 / 12	SAFEWAY FUEL 1528	721 SW MT SI BLVD	FINDS	TP
AU192 / 12	76 STATION	721 SW MT SI BLVD	WA RGA LUST	TP
AU193 / 12	76 STATION	721 SW MT SI BLVD	WA RGA HWS	TP
AV194 / 12	SAFEWAY STORE 1528	460 SW MT SI BLVD	WA ALLSITES, WA MANIFEST	TP
AV195 / 12	SAFEWAY STORE 1528	460 SW MT SI BLVD	FINDS, ECHO	TP
AV196 / 12	SAFEWAY STORE 1528	460 SW MT SI BLVD	RCRA-VSQG	TP
CJ374 / 12	SI VIEW METROPOLITAN	901 BENDIGO BLVD N	RCRA NonGen / NLR	618 0.117 North
CJ375 / 12	SI VIEW METROPOLITAN	901 BENDIGO BLVD N	WA ALLSITES, WA MANIFEST	618 0.117 North
376 / 12	TOLLGATE FARM PARK T		WA ALLSITES	674 0.128 North
386 / 12	NURSERY THE AT MT SI	42328 SE 108TH ST	WA ALLSITES	1300 0.246 North
394 / 12	SNOQUALMIE VALLEY AT	1422 BENDIGO BLVD N	WA ALLSITES	2248 0.426 North
396 / 12	SNOQUALMIE VALLEY YO	152 BOALCH AVE NW	WA ALLSITES, WA NPDES	2374 0.450 North

Attachment A



Indian Reservations BIA



CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 13

Target Property:










CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
19 / 13		710 MALONEY GROVE W 1	WA ASBESTOS	TP
22 / 13		709 NE 6TH ST	WA ASBESTOS	TP
N51 / 13	PLAT OF RIVER GLEN	PICKETT AVE	WA ALLSITES	TP
N52 / 13	PLAT OF RIVER GLEN	PICKETT AVE,	WA UIC	TP
80 / 13	PLAT OF RIVER GLEN	PICKETT AVE,	WA UIC	TP
AA104 / 13	RIVER GLEN	814 NE 3RD STREET	ECHO	TP
AA105 / 13	RIVER GLEN	814 NE 3RD STREET	WA ALLSITES	TP
AA106 / 13	RIVER GLEN	814 NE 3RD STREET	FINDS	TP
AD113 / 13	PLAT OF RIVER GLEN	PICKETT AVE,	WA UIC	TP
AD119 / 13	PLAT OF RIVER GLEN	PICKETT AVE,	WA UIC	TP
AI129 / 13	CITY OF NORTH BEND N	NE 3RD ST	WA UIC	TP
AI130 / 13	CITY OF NORTH BEND N	NE 3RD ST	WA ALLSITES	TP
131 / 13	RANGER STATION COTTA	SEC 424TH AVE SE & S	FINDS, ECHO	TP
AS179 / 13	NORTH BEND AUTO PART	1120 E NORTH BEND WA	RCRA-VSQQ, WA ALLSITES, FINDS, ECHO, WA ...	TP
AT181 / 13	KING CNTY DOT MOUNT	43600 MOUNT SI RD	WA ALLSITES, FINDS, ECHO, WA MANIFEST	TP
AT182 / 13	KING CNTY DOT MOUNT	43600 MOUNT SI RD	RCRA NonGen / NLR	TP
AS183 / 13	FRANK PADAVICH	1130 E NORTH BEND WA	WA CSCSL, WA LUST, WA UST, WA ALLSITES	TP
AS184 / 13	FRANK PADAVICH	1130 E NORTH BEND WA	WA VCP	TP
AS185 / 13	TRANSMISSIONS PLUS I	1130 E NORTH BEND WA	EDR Hist Auto	TP
AS186 / 13	FRANK PADAVICH	1130 E NORTH BEND WA	FINDS	TP
AS187 / 13	FRANK PADAVICH	1130 E NORTH BEND WA	WA RGA LUST	TP
AS188 / 13	FRANK PADAVICH	1130 E NORTH BEND WA	WA RGA HWS	TP

Focus Map - 14 - 5992688.2s

Attachment A



- | | | | | | |
|---|-----------------|---|----------------------|---|------------------------------|
|  | Sites |  | Focus Map - Sites |  | Indian Reservations BIA |
|  | Target Property |  | Power Line |  | National Priority List Sites |
|  | Search Buffer |  | Focus Map - No Sites |  | Dept. Defense Sites |

0 1/8 1/4 Miles



SITE NAME: City of North Bend Well Head Protection Plan
 ADDRESS: City of North Bend Well Head Protection Plan
 CITY/STATE: North Bend WA
 ZIP: 98045

CLIENT: Golder Associates, Inc.
 CONTACT: Jay Pietraszek
 INQUIRY #: 5992688.2s
 DATE: 03/05/20

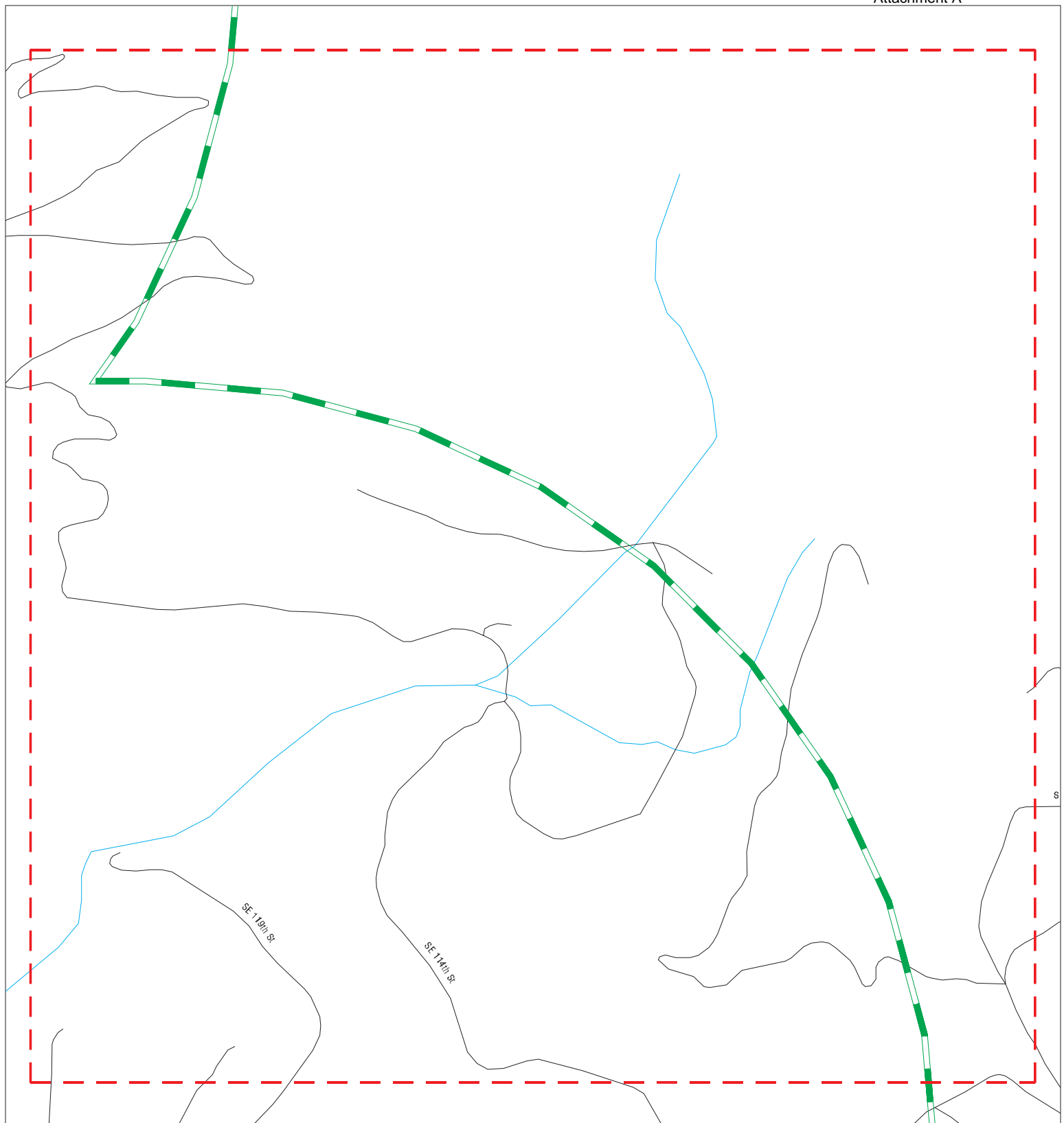
MAPPED SITES SUMMARY - FOCUS MAP 14










Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND



- | | | | | | |
|--|----------------------|---|------------------------------|---|-------------------------|
|  | Sites |  | Focus Map - Sites |  | Indian Reservations BIA |
|  | Target Property |  | Power Line | | |
|  | Search Buffer |  | National Priority List Sites | | |
|  | Focus Map - No Sites |  | Dept. Defense Sites | | |

0 1/8 1/4 Miles



SITE NAME: City of North Bend Well Head Protection Plan
ADDRESS: City of North Bend Well Head Protection Plan
CITY/STATE: North Bend WA
ZIP: 98045

CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 15

Target Property:

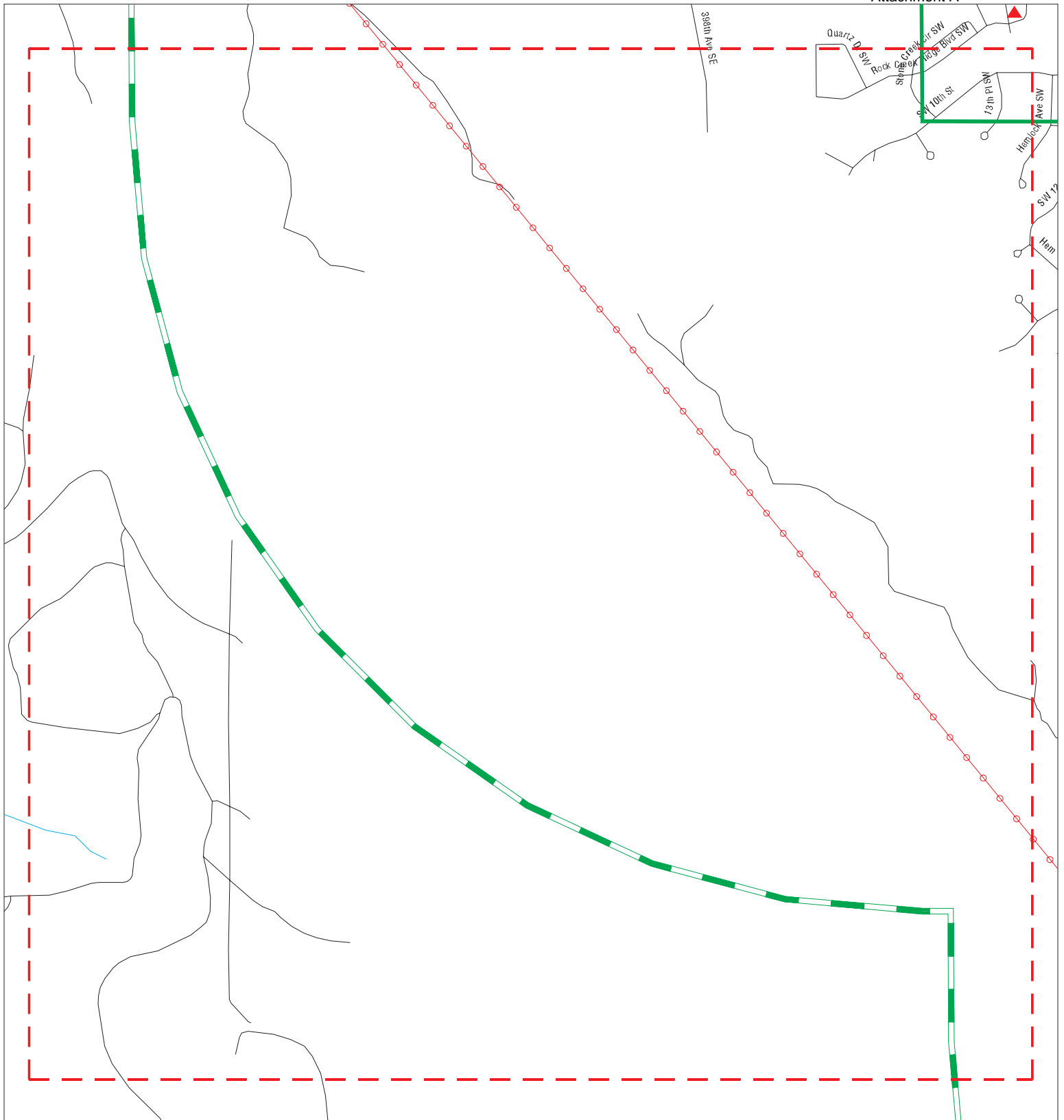
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND

Focus Map - 16 - 5992688.2s

Attachment A



- ▲ Sites
- / / Focus Map - Sites
- Indian Reservations BIA
- / / Target Property
- / / Power Line
- National Priority List Sites
- / / Search Buffer
- Dept. Defense Sites
- / / Focus Map - No Sites

0 1/8 1/4 Miles

SITE NAME: City of North Bend Well Head Protection Plan
 ADDRESS: City of North Bend Well Head Protection Plan
 CITY/STATE: North Bend WA
 ZIP: 98045

CLIENT: Golder Associates, Inc.
 CONTACT: Jay Pietraszek
 INQUIRY #: 5992688.2s
 DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 16

Target Property:

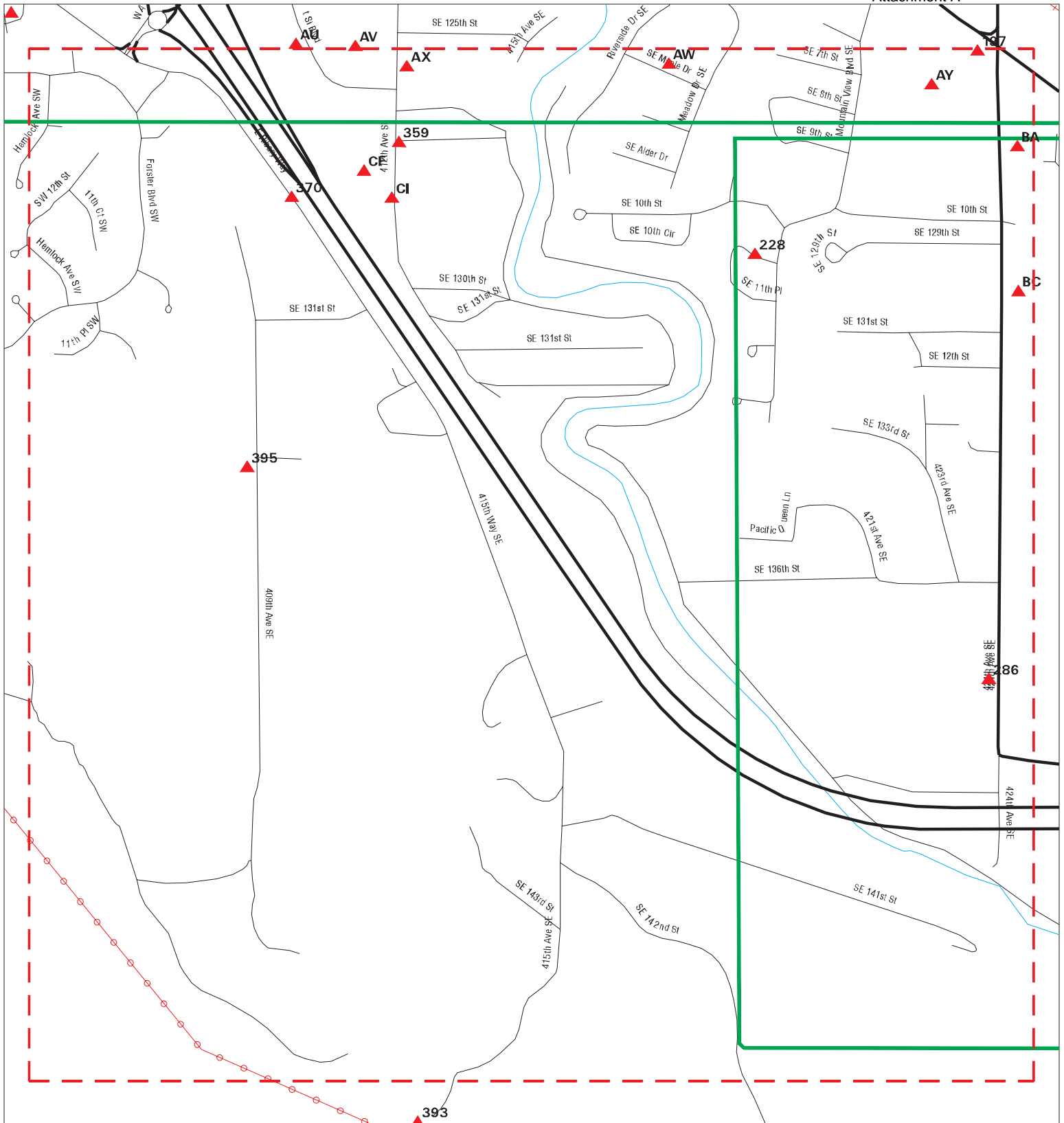
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND

Focus Map - 17 - 5992688.2s

Attachment A



- ▲ Sites
- // Focus Map - Sites
- Indian Reservations BIA
- ▲ Target Property
- Power Line
- National Priority List Sites
- ▲ Search Buffer
- Dept. Defense Sites
- // Focus Map - No Sites
- Dept. Defense Sites

0 1/8 1/4 Miles

SITE NAME: City of North Bend Well Head Protection Plan
 ADDRESS: City of North Bend Well Head Protection Plan
 CITY/STATE: North Bend WA
 ZIP: 98045

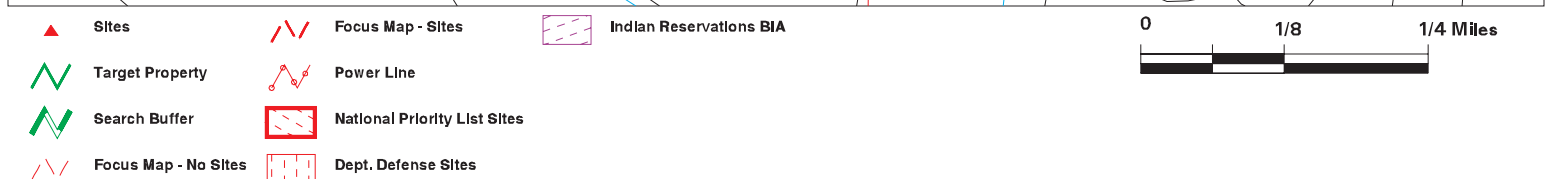
CLIENT: Golder Associates, Inc.
 CONTACT: Jay Pietraszek
 INQUIRY #: 5992688.2s
 DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 17

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
197 / 17	MOUNTAIN VIEW ESTATE		WA ALLSITES	TP
AU198 / 17	SAFEWAY FUEL 1528	715 SW MT SI BLVD	WA CSCSL, WA LUST, WA UST, WA ALLSITES	TP
AU199 / 17	SAFEWAY FUEL 1528	715 SW MT SI BLVD	WA Financial Assurance	TP
AU200 / 17	SAFEWAY	715 W MOUNT SI BLVD	WA SPILLS	TP
AU201 / 17	SAFEWAY FUEL 1528	715 SW MT SI BLVD	WA RGA LUST	TP
AU202 / 17	SAFEWAY FUEL #1528	715 SW MT SI BLVD	WA RGA LUST	TP
AU203 / 17	SAFEWAY FUEL CENTER	715 SW MT SI BLVD	WA RGA LUST	TP
AW205 / 17		448 SE MAPLE DRIVE E	WA ASBESTOS	TP
AW206 / 17		448 MAPLE DRIVE ALL	WA ASBESTOS	TP
AX208 / 17	VECTOR CONSTRUCTION	12540 412TH AVE SE	WA ALLSITES	TP
AX209 / 17	VECTOR CONSTRUCTION	12540 412TH AVE SE	FINDS	TP
AY210 / 17	MALONEY GROVE 9 LOT	701 MALONEY GROVE AV	ECHO	TP
AY211 / 17	MALONEY GROVE 9 LOT	701 MALONEY GROVE AV	WA ALLSITES, WA ASBESTOS	TP
AY212 / 17	MALONEY GROVE 9 LOT	701 MALONEY GROVE AV	FINDS	TP
BA220 / 17	MALONEY GROVE 13	710 MALONEY GROVE AV	WA ALLSITES, WA ASBESTOS	TP
BA221 / 17	MALONEY GROVE 13	710 MALONEY GROVE AV	FINDS, ECHO	TP
228 / 17	NEAR 11.7 MILE OF E	NEAR 11.7 MILE OF E	US BROWNFIELDS, FINDS	TP
BC229 / 17	CEDAR FALLS DEVELOPM	INTER OF 424TH AVE S	FINDS, ECHO	TP
BC230 / 17	CEDAR FALLS DEVELOPM	INTER OF 424TH AVE S	WA ALLSITES	TP
286 / 17		13803 424TH AVE SE C	WA ASBESTOS	TP
359 / 17	NEW SKY LLC	12700 412TH AVE SE	WA ALLSITES, WA NPDES	127 0.024 South
CF364 / 17	CASCADE AUTOVON COMP	12727 412TH AVE SE	WA LUST, WA UST, WA ICR, WA ALLSITES, WA...	319 0.060 South
CF365 / 17	CASCADE AUTOVON CO	12727 412TH AVE SE	WA VCP	319 0.060 South
370 / 17	NORTH BEND CITYRIBAR	E RIBARY WAY	WA ALLSITES, FINDS	494 0.094 South
CI371 / 17	AT&T CORP 412TH	12805 412TH AVE SE	RCRA NonGen / NLR, FINDS, ECHO	500 0.095 South
CI372 / 17	NORTH BEND B530350/N	12805 412TH AVE SE	WA UST, WA ALLSITES	500 0.095 South
395 / 17	ATT MOBILITY MOUNTAI	13323 409TH AVE SE	WA ALLSITES	2298 0.435 South

Attachment A



CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 18

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
204 / 18	MT SI BRIDGE 2550A		WA ALLSITES, WA NPDES	TP
207 / 18	NORTH BEND CITY	1155 E NORTH BEND WA	WA ALLSITES, RCRA NonGen / NLR, FINDS, E...	TP
AZ213 / 18	SMITTYS INC	1410 E NORTH BEND WA	WA ALLSITES	TP
AZ214 / 18	SMITTYS INC	1410 E NORTH BEND WA	FINDS	TP
AZ215 / 18	SNOQUALMIE VALLEY AP	42700 SE NORTH BEND	WA ALLSITES	TP
AZ216 / 18	42404 SE NORTH BEND	42404 SE NORTH BEND	FINDS	TP
AZ217 / 18	RON'S AUTO SERVICE	42620 SE NORTH BEND	EDR Hist Auto	TP
AZ218 / 18	NORTH BEND RANGER ST	42404 SE NORTH BEND	WA UST, WA ALLSITES	TP
AZ219 / 18	SNOQUALMIE VALLEY AP	42700 SE NORTH BEND	FINDS	TP
BB222 / 18	ROWLEY ENTERPRISE/ M	43321 MT. SI ROAD SE	WA ICR	TP
BB223 / 18	ROWLEY ENTERPRISES M	43321 MT SI RD SE	WA ALLSITES, WA CSCSL NFA	TP
BB224 / 18	ROWLEY ENTERPRISES M	43321 MT SI RD SE	FINDS	TP
227 / 18	GRANITE LAKES QUARRY	MIDDLE FORK RD & GRA	FINDS	TP
231 / 18	LEVEL 3 COMMUNICATIO	43411 SE NORTH BEND	WA ALLSITES, FINDS	TP
BD233 / 18	APPLIED PROFESSIONAL	43530 SE NORTH BEND	RCRA NonGen / NLR	TP
BD234 / 18	APPLIED PROFESSIONAL	43530 SE NORTH BEND	WA MANIFEST	TP
BD235 / 18	APPLIED PROFESSIONAL	43530 SE NORTH BEND	FINDS, ECHO	TP
BD236 / 18	APPLIED PROFESSIONAL	43530 SE NORTH BEND	WA ALLSITES	TP
BE237 / 18	NORTH BEND COTTAGES		WA ALLSITES	TP
BE238 / 18	NORTH BEND COTTAGES	UNSPECIFIED	FINDS, ECHO	TP
239 / 18	DUMP SITE	444TH AVE SE	WA ALLSITES	TP
240 / 18	CEDAR FALLS SOUTH	13303 427TH AVE SE	WA ALLSITES, WA NPDES	TP
241 / 18		13306 427TH AVE SE	WA ASBESTOS	TP
BE242 / 18		CEDAR FALLS WAY	WA SPILLS	TP
243 / 18	CEDAR RIVER PARTNERS	44124 SE NORTH BEND	FINDS, ECHO	TP
BF244 / 18	MT SI VISTA (I 1) (D	13315 433RD CT SE	WA UIC	TP
BF245 / 18		13315 433RD CT SE KI	WA ASBESTOS	TP
BF246 / 18	MT SI VISTA (I 1) (D	13315 433RD CT SE	WA UIC	TP
BG247 / 18	BPA NORTH BEND RADIO	END OF RATTLESNAKE M	WA ALLSITES	TP
BG248 / 18	PSE RATTLESNAKE MT M	1441 389TH AVE SE	WA ALLSITES, FINDS	TP
BG249 / 18	AT&T WA0330 RTGWAQ35	RATTLESNAKE LEDGE RR	WA ALLSITES, FINDS	TP
BG250 / 18	AT&T NORTHBEND WA524	53000 SE FROUSE RIDG	WA ALLSITES, FINDS	TP
252 / 18	KING COUNTY DEPT OF	4430 337 PL SE	WA UIC	TP
BH253 / 18	CHINOOK LUMBER	436TH AVE SE @ CEDAR	WA UIC	TP
BH254 / 18	CHINOOK LUMBER	436TH AVE SE @ CEDAR	WA UIC	TP
BH255 / 18	CHINOOK LUMBER	436TH AVE SE @ CEDAR	WA UIC	TP
BH256 / 18	CHINOOK LUMBER	436TH AVE SE @ CEDAR	WA UIC	TP
BI257 / 18	SUN RISE VIEW	42621 SE 134TH PL	FINDS, ECHO	TP
BI258 / 18		42621 134TH PL	WA ASBESTOS	TP

MAPPED SITES SUMMARY - FOCUS MAP 18

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BI259 / 18	SUN RISE VIEW	42621 SE 134TH PL	WA ALLSITES, WA NPDES	TP
260 / 18	MT SI VISTA (I 2) (D	13500 434RD AVE SE	WA UIC	TP
261 / 18	CHINOOK LUMBER	436TH AVE SE CEDAR F	WA ALLSITES	TP
262 / 18		13513 434TH AVE SE,	WA ASBESTOS	TP
BJ263 / 18	3 LAKES QUARRY	43909 SE TANNER RD	ABANDONED MINES	TP
BJ264 / 18	3 LAKES QUARRY	43909 SE TANNER RD	US MINES	TP
265 / 18	CEDAR RIVER PARTNERS	44124 SE NORTH BEND	WA ALLSITES, WA ASBESTOS, WA NPDES	TP
266 / 18	MT SI VISTA (I 3) (D	13532 433RD PLACE SE	WA UIC	TP
BK267 / 18	ALLIED BLDG SUPPLIES	43516 SE 136TH ST	WA SPILLS	TP
BK268 / 18	RIVER RUN	43600 SE 136TH STREE	WA ALLSITES, WA NPDES	TP
BK269 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP
BK270 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP
BK271 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP
BK272 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP
BK273 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP
BK274 / 18	RIVER RUN	43600 SE 136TH STREE	WA UIC	TP
BL275 / 18	PUGET SOUND POWER	44429 SE TANNER RD	WA RGA LUST	TP
BL276 / 18	PUGET SOUND POWER &	44429 SE TANNER RD	FINDS	TP
BL277 / 18	PUGET POWER TANNER M	44429 SE TANNER RD	WA RGA LUST	TP
BL278 / 18	PUGET SOUND POWER &	44429 SE TANNER RD	WA RGA LUST	TP
BL279 / 18	PUGET SOUND POWER &	44429 SE TANNER RD	WA LUST, WA UST, WA ICR, WA ALLSITES, WA...	TP
BL280 / 18	PUGET POWER TANNER M	44429 SE TANNER RD	WA RGA HWS	TP
BN283 / 18		43030 SE 137TH PL TH	WA ASBESTOS	TP
BN284 / 18	CEDAR LANDING PHASES		WA ALLSITES	TP
289 / 18		13739 436TH AVE SE	WA SPILLS	TP
296 / 18	AT&T WIRELESS TANNER	16550 487TH AVE SE	WA ALLSITES, FINDS	TP
300 / 18	CEDAR LANDING PHASES	UNSPECIFIED	FINDS, ECHO	TP
303 / 18	KING COUNTY SHORT PL	44139 SE 136TH ST	WA UIC	TP
BU312 / 18	IRON HORSE PARK	I 90 EXIT 32	WA UST	TP
BU313 / 18	IRON HORSE PARK	I90 EXIT 32	WA ALLSITES, FINDS	TP
319 / 18			WA SPILLS	TP
324 / 18	CEDAR VILLAGE DIVISI	14219 443RED PLACE S	WA UIC	TP
BW325 / 18	CASCADE GOLF COURSE	14303 436 AVE SE	FINDS	TP
BW326 / 18	CASCADE GOLF COURSE	14303 436 AVE SE	WA UST, WA ALLSITES	TP
327 / 18	PSE	43816 SE 143RD ST	WA SPILLS	TP
BZ338 / 18	CEDAR VILLAGE 4 (D90	43910 SE 143RD STREE	WA UIC	TP
339 / 18	KING CNTY SHORT PLAT	43610 SE 143RD PLACE	WA UIC	TP
BZ346 / 18	CEDAR VILLAGE 4 (D90	43911 SE 143RD STREE	WA UIC	TP
355 / 18	KING CNTY SHORT PLAT	43930 SE 144TH LANE	WA UIC	TP

MAPPED SITES SUMMARY - FOCUS MAP 18

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
356 / 18	SMITTYS TOWING AUTO	42998 SE NORTH BEND	WA ALLSITES	4 0.001

Attachment A



CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 19

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
225 / 19			WA SPILLS	TP
226 / 19			WA SPILLS	TP
232 / 19	I-90 NORTH BEND CORP	468TH AVE SE BW SE 1	WA NPDES	TP
251 / 19	TANNER ROAD SUBDIVIS		WA ALLSITES	TP
BM281 / 19	MINERS RIDGE 24 LOT	13607 461ST AVE SE	WA ALLSITES	TP
BM282 / 19	MINERS RIDGE 24 LOT	13607 461ST AVE SE	FINDS, ECHO	TP
BO285 / 19	TANNER FALLS RECLAMA	SE 140TH ST WESTERLY	FINDS, ECHO	TP
BO287 / 19	TANNERWOOD	SE 140	WA ALLSITES	TP
BP288 / 19	DAVID PIT		MINES MRDS	TP
290 / 19	ULID NO 6 SEWER PIPE	468TH AVE	WA ALLSITES	TP
BP291 / 19	MAS RESOURCES INC JO	TANNER RD	WA ALLSITES, FINDS	TP
292 / 19	TANNER FALLS RECLAMA	SE 140TH ST WEST OF	WA ALLSITES, WA NPDES	TP
BQ293 / 19	WA DOT NORTH BEND	45000 SE 140TH ST	WA VCP	TP
BQ294 / 19	WA DOT NORTH BEND	45000 SE 140TH ST	WA ALLSITES, WA CSCSL NFA, FINDS	TP
BQ295 / 19	WA DOT NORTHBEND	45000 SE 140TH ST	WA RGA HWS	TP
BR297 / 19	TANNERWOOD A	SE 140TH ST AND 453N	WA ALLSITES	TP
BR298 / 19	TANNERWOOD	SE 140	FINDS, ECHO	TP
299 / 19	NW CASCADES INC	13805 457TH AVE SE	WA SPILLS	TP
BS301 / 19	FURY SITE WORKS INC		US MINES	TP
BS302 / 19	TANNER FALLS	45100 NE 140TH SE	ABANDONED MINES	TP
BT304 / 19	M.C. ANDERSON TRUCKI	44700 NORTH BEND WAY	WA ICR	TP
BT305 / 19	CHAMPION INTERNATION	200 FT S OF MIDDLE F	WA ALLSITES	TP
BT306 / 19	MC ANDERSON TRUCKING	44711 SE NORTHBEND W	FINDS	TP
BT307 / 19	MC ANDERSON TRUCKING	44711 SE NORTHBEND W	WA RGA LUST	TP
BT308 / 19	MC ANDERSON	44711 SE NORTHBEND	WA RGA LUST	TP
BT309 / 19	CHAMPION INTERNATION	200 FT S OF MIDDLE F	RCRA NonGen / NLR, FINDS, ECHO	TP
310 / 19		457TH AVE S	WA SPILLS	TP
311 / 19		45312 SE 140TH STREE	WA ASBESTOS	TP
314 / 19		I-90 WESTBOUND MILEP	WA SPILLS	TP
315 / 19	MC ANDERSON TRUCKING	44711 SE NORTHBEND W	WA LUST, WA UST, WA ALLSITES, WA CSCSL N...	TP
BV316 / 19	ESTATE OF DANIEL H C	45120 SE NORTH BEND	WA MANIFEST	TP
BV317 / 19	ENGINEERED COATING S	45120 SE NORTH BEND	WA RGA HWS	TP
BV318 / 19	ESTATE OF DANIEL H C	45120 SE NORTH BEND	WA HSL, WA CSCSL, WA ALLSITES, RCRA NonG...	TP
320 / 19	PSE	44504 SE 142ND ST	WA SPILLS	TP
321 / 19	TANNER HEADQUARTERS		WA ALLSITES	TP
BX328 / 19	EM MATSON JR CO INC	45620 SE NORTH BEND	WA ALLSITES, FTTS, HIST FTTS, WA MANIFES...	TP
BX329 / 19	MATSON, LLC	45620 SE N BEND WAY	ICIS, FINDS, ECHO	TP
BX330 / 19	MATSON, LLC	45620 SE N BND WAY	SSTS	TP
BX331 / 19	E. M. MATSON JR CO.,	45620 S.E. N BEND WA	SSTS	TP

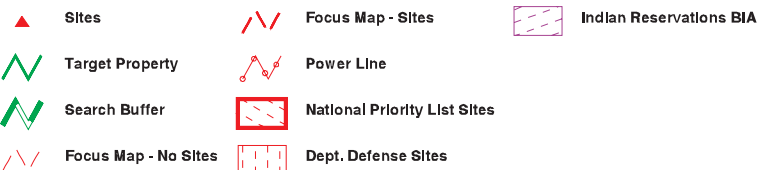
MAPPED SITES SUMMARY - FOCUS MAP 19

Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
BX332 / 19	E.M. MATSON, JR. CO.	45620 S.E. N BEND WA	SSTS	TP
BX333 / 19	MATSON LLC DIV OF CE	45620 SE NORTH BEND	RCRA NonGen / NLR	TP
BX334 / 19	MATSON, LLC	45620 S.E. N BEND WA	SSTS	TP
BY335 / 19	NOR WEST MOBILE HOME	45810 SE NORTH BEND	FINDS, ECHO	TP
BY336 / 19	RESIDENT	45810 SE NORTH BEND	WA SPILLS	TP
BY337 / 19	FELON	45810 SE NORTHBEND W	WA SPILLS	TP
CA340 / 19	TANNER ELECTRIC COOP	45710 SE NORTH BEND	WA UST, WA ALLSITES	TP
CA341 / 19	TANNER ELECTRIC COOP	45710 SE N BEND HWY	FTTS	TP
CA342 / 19	TANNER ELECTRIC COOP	45710 SE NORTH BEND	HIST FTTS	TP
CA343 / 19	TANNER ELECTRIC COOP	45710 SE N BEND HWY	HIST FTTS	TP
CA344 / 19	TANNER ELECTRIC COOP	45710 SE NORTH BEND	RCRA NonGen / NLR, FINDS, ECHO	TP
CA345 / 19	TANNER ELECTRIC COOP	45710 SE NORTH BEND	FTTS	TP
349 / 19	EASTBOUND INTERSTATE	EB I90 MP 33	WA ALLSITES	TP
CC350 / 19	CASCADE DIESEL TRUCK	45830 SE NORTH BEND	FINDS	TP
CC351 / 19	CASCADE DIESEL TRUCK	45830 SE NORTH BEND	WA ALLSITES	TP
352 / 19		44572 SE 144TH STREE	WA ASBESTOS	TP
363 / 19	GRAY CONSTRUCTION &	14513 449TH AVE SE	EDR Hist Auto	171 0.032 South

Attachment A



CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

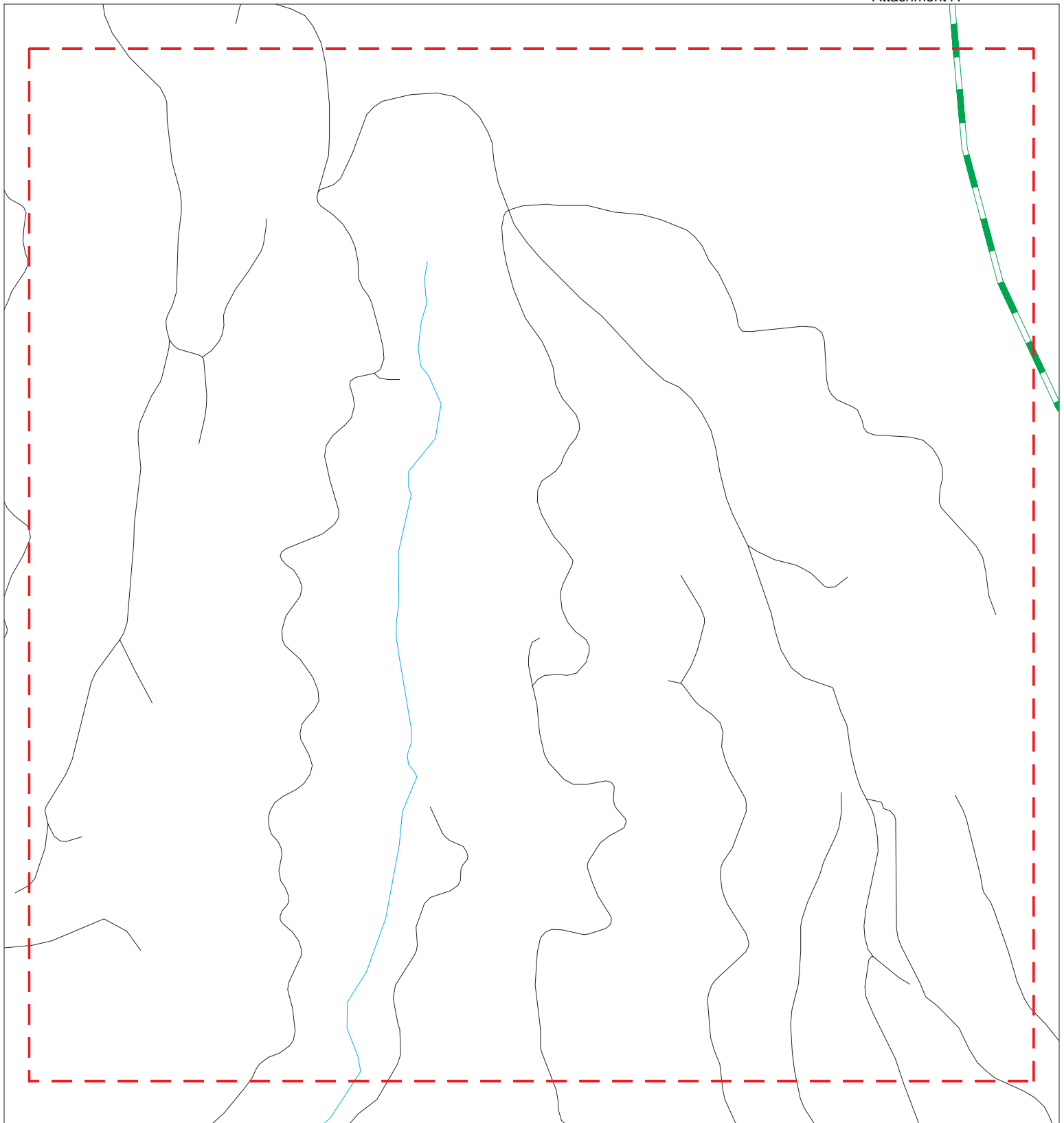
MAPPED SITES SUMMARY - FOCUS MAP 20

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
322 / 20	I90 CORPORATE PARK	46501 & 46511 SE NOR	WA ALLSITES, WA CSCSL NFA, FINDS	TP		
323 / 20	SNOQUALMIE VALLEY SC	46837 SE MIDDLE FORK	WA ALLSITES, RCRA NonGen / NLR, FINDS, E...	TP		
CB347 / 20	PETROCARD INC NORTH	14220 468TH PL SE	WA ALLSITES	TP		
CB348 / 20	PETROCARD INC NORTH	14220 468TH PL SE	FINDS	TP		
CD353 / 20	I90 NORTH BEND CORPO	SE NORTH BEND WAY	FINDS, ECHO	TP		
CD354 / 20	I90 NORTH BEND CORPO	SE NORTH BEND WAY	WA ALLSITES	TP		
357 / 20	SYSTEM TRANSPORT DIE	NWC 468TH AVE SE & S	WA ALLSITES, WA CSCSL NFA	14	0.003	East
358 / 20	KING CNTY DOT 468TH	468TH AVE SE CROSSIN	WA ALLSITES, RCRA NonGen / NLR, WA MANIF...	28	0.005	North
CE360 / 20	PETROCARD INC	14420 468TH AVE SE	WA UST	160	0.030	ESE
CE361 / 20	EDGEWICK VLG TEXACO	14420 468TH AVE SE	EDR Hist Auto	160	0.030	ESE
CE362 / 20	PETROCARD INC	14420 468TH AVE SE	WA ALLSITES, WA Financial Assurance	160	0.030	ESE
CH368 / 20	GENIE TEREX STORAGE	46925 SE MIDDLE FORK	WA ALLSITES, WA ASBESTOS, WA NPDES	470	0.089	East
CH369 / 20	DVST INC	46925 SE MIDDLE FORK	EDR Hist Auto	470	0.089	East
373 / 20	LOOP VEHICLE MAINTEN		WA ALLSITES	607	0.115	ESE
CM384 / 20	GENIE INDUSTRIES NOR	47020 SE 144TH ST	RCRA-VSQG	918	0.174	East
CM385 / 20	GENIE INDUSTRIES NOR	47020 SE 144TH ST	WA ALLSITES, WA MANIFEST	918	0.174	East
390 / 20	MOUNT TENERIFFE TRAI		WA ALLSITES	1575	0.298	East
392 / 20	KING CNTY DOT NORTH	MIDDLE FORK RD SE	WA ALLSITES, WA NPDES	2055	0.389	East

Focus Map - 21 - 5992688.2s

Attachment A



- ▲ Sites
- / / Focus Map - Sites
- Indian Reservations BIA
- / / Target Property
- / / Power Line
- National Priority List Sites
- / / Search Buffer
- Dept. Defense Sites
- / / Focus Map - No Sites

0 1/8 1/4 Miles

SITE NAME: City of North Bend Well Head Protection Plan
 ADDRESS: City of North Bend Well Head Protection Plan
 CITY/STATE: North Bend WA
 ZIP: 98045

CLIENT: Golder Associates, Inc.
 CONTACT: Jay Pietraszek
 INQUIRY #: 5992688.2s
 DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 21

Target Property:

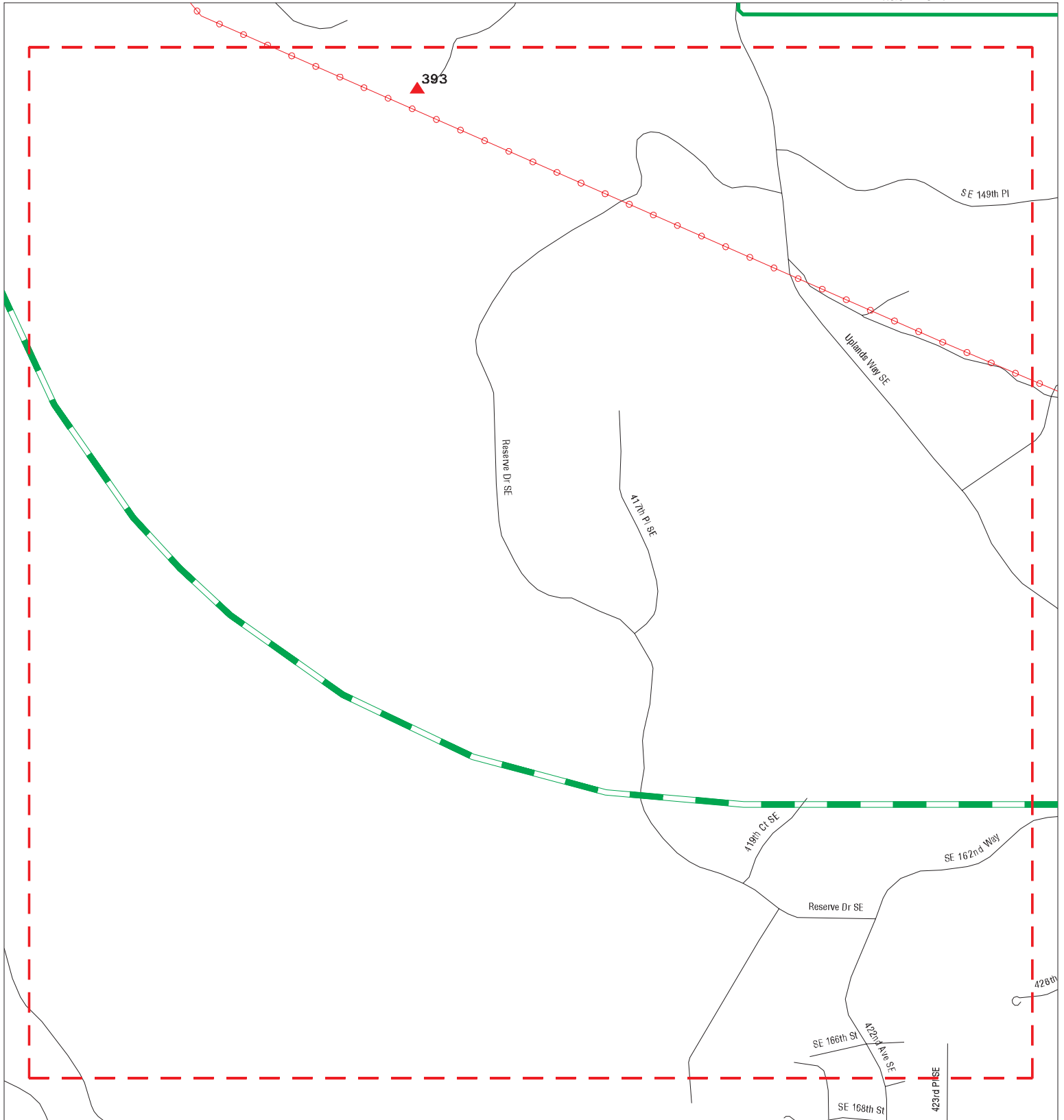
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

Focus Map - 22 - 5992688.2s

Attachment A



- | | | | | | |
|--|-----------------|--|----------------------|--|------------------------------|
| | Sites | | Focus Map - Sites | | Indian Reservations BIA |
| | Target Property | | Power Line | | National Priority List Sites |
| | Search Buffer | | Focus Map - No Sites | | Dept. Defense Sites |

0 1/8 1/4 Miles

SITE NAME: City of North Bend Well Head Protection Plan
 ADDRESS: City of North Bend Well Head Protection Plan
 CITY/STATE: North Bend WA
 ZIP: 98045

CLIENT: Golder Associates, Inc.
 CONTACT: Jay Pietraszek
 INQUIRY #: 5992688.2s
 DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 22

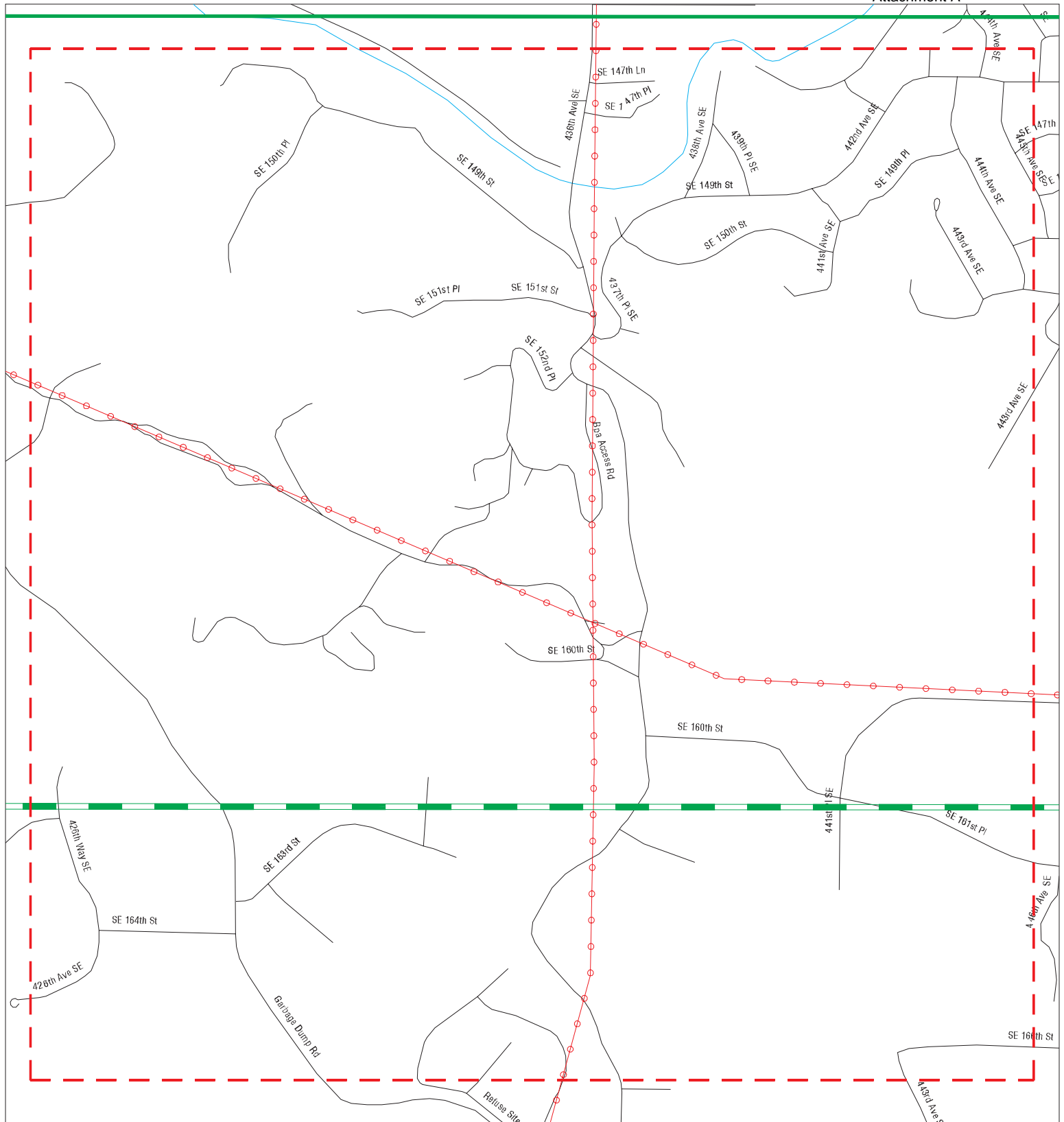
Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
393 / 22	FURY CONSTRUCTION CO	14536 415TH AVE SE	WA UST, WA ALLSITES	2209 0.418 WSW

Focus Map - 23 - 5992688.2s

Attachment A



- ▲ Sites
- ▲ Target Property
- ▲ Search Buffer
- ▲ Focus Map - No Sites
- ▲ Focus Map - Sites
- ▲ Power Line
- ▲ National Priority List Sites
- ▲ Dept. Defense Sites
- Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: City of North Bend Well Head Protection Plan
 ADDRESS: City of North Bend Well Head Protection Plan
 CITY/STATE: North Bend WA
 ZIP: 98045

CLIENT: Golder Associates, Inc.
 CONTACT: Jay Pietraszek
 INQUIRY #: 5992688.2s
 DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 23

Target Property:

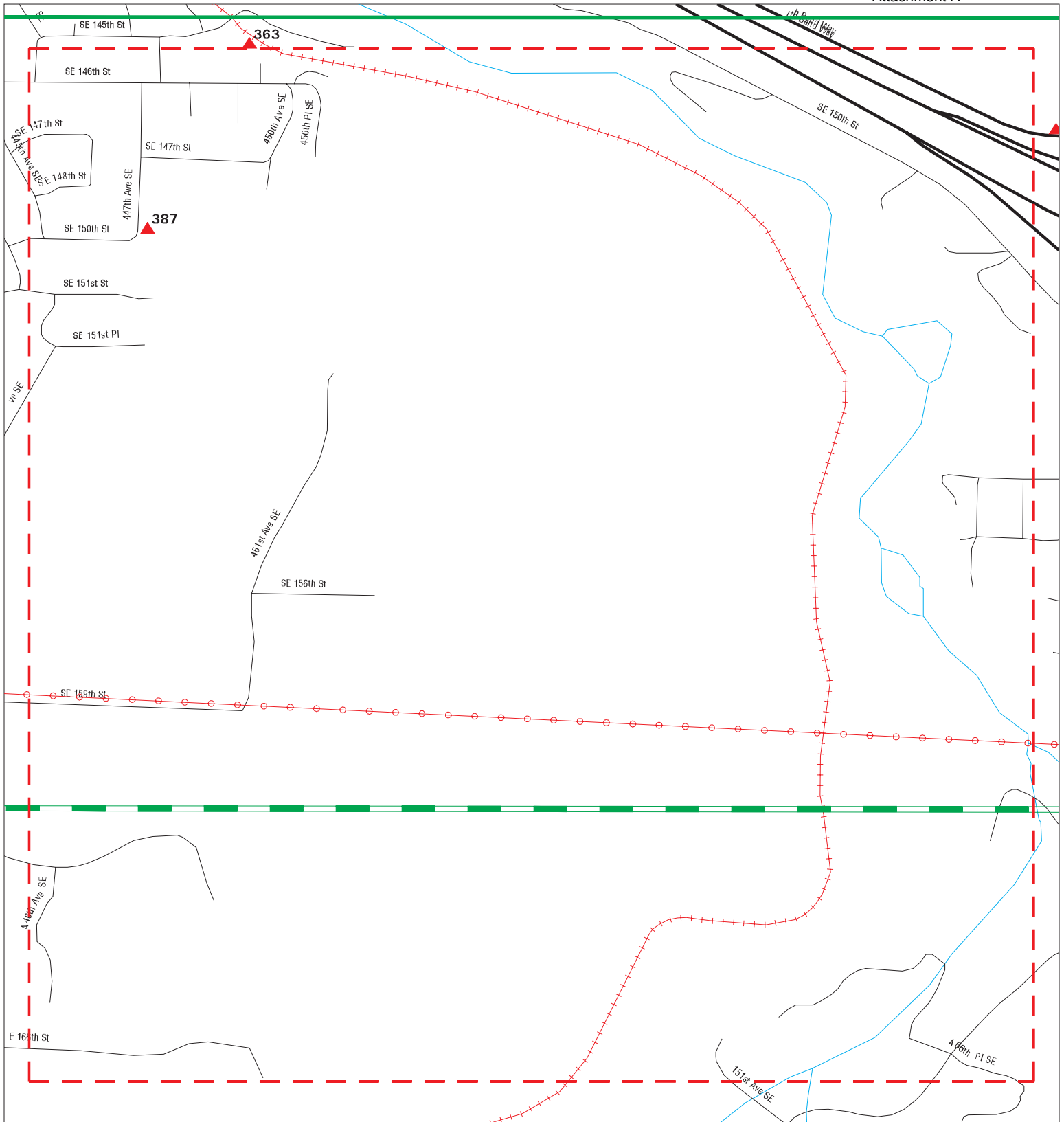
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

Focus Map - 24 - 5992688.2s

Attachment A



- ▲ Sites
- / / Focus Map - Sites
- Indian Reservations BIA
- / / Target Property
- / / Power Line
- Search Buffer
- National Priority List Sites
- / / Focus Map - No Sites
- Dept. Defense Sites



SITE NAME: City of North Bend Well Head Protection Plan
 ADDRESS: City of North Bend Well Head Protection Plan
 CITY/STATE: North Bend WA
 ZIP: 98045

CLIENT: Golder Associates, Inc.
 CONTACT: Jay Pietraszek
 INQUIRY #: 5992688.2s
 DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 24










Target Property:

CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
387 / 24	PEARCE INFILTRATION	14744 447TH AVE SE	WA ALLSITES	1405 0.266 South

Attachment A



- | | | | | | |
|---|----------------------|---|------------------------------|---|-------------------------|
|  | Sites |  | Focus Map - Sites |  | Indian Reservations BIA |
|  | Target Property |  | Power Line | | |
|  | Search Buffer |  | National Priority List Sites | | |
|  | Focus Map - No Sites |  | Dept. Defense Sites | | |

CLIENT: Golder Associates, Inc.
CONTACT: Jay Pietraszek
INQUIRY #: 5992688.2s
DATE: 03/05/20

MAPPED SITES SUMMARY - FOCUS MAP 25

Target Property:
CITY OF NORTH BEND WELL HEAD PROTECTION PLAN
NORTH BEND, WA 98045

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
CG366 / 25	WARRIOR'S QUICK STOP	14500 468TH AVE SE	WA UST	353	0.067	SSE
CG367 / 25	KEN ROGERS	14500 468TH AVE SE	WA ALLSITES, WA SPILLS, WA Financial Ass...	353	0.067	SSE
CK377 / 25	KENS TRUCK STOP	46630 SE NORTH BEND	WA LUST, WA SPILLS	695	0.132	South
CK378 / 25	TRAVEL CENTERS OF AM	46630 NORTH BEND WAY	WA ALLSITES	695	0.132	South
CK379 / 25	HPT TA PROPERTIES TR	46630 SE NORTH BEND	WA UST	695	0.132	South
CK380 / 25	HPT TA PROPERTIES TR	46630 SE NORTH BEND	WA ALLSITES, WA CSCSL NFA	695	0.132	South
CL381 / 25	HPT TA PROPERTIES TR	46600 SE NORTH BEND	WA ALLSITES, WA SPILLS, WA Financial Ass...	737	0.140	South
CL382 / 25	HPT TA PROPERTIES TR	46600 SE NORTH BEND	WA UST	737	0.140	South
CL383 / 25	PACIFIC PRIDE STATIO		WA ALLSITES	807	0.153	South
397 / 25	CADMAN INC NORTH BEN	47320 SE GROUSE RIDG	WA SWF/LF, WA ALLSITES, WA NPDES	2570	0.487	ESE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1 **UNKNOWN**
Target **8621 436TH PL SE - SITTING IN FRONT OF T**
Property **NORTH BEND, WA**

WA SPILLS **S105398598**
 N/A

Site 1 of 2 in cluster A

Actual: **SPILLS:**
434 ft. Name: UNKNOWN
Focus Map: Address: 8621 436TH PL SE - SITTING IN FRONT OF T
8 City,State,Zip: NORTH BEND, WA
 Facility ID: 520698
 Medium: Not reported
 Material Desc: CHEMICAL
 Material Qty: 1
 Material Units: CYLINDER
 Date Received: 08/28/2001
 Contact Name: Not reported
 Incident Date: Not reported
 Incident Category Type: Not reported
 Incident Category: Not reported
 Latitude: Not reported
 Longitude: Not reported
 Source Type: Not reported
 Source: Not reported
 Vessel Facility Name2: Not reported
 Recovered Quantity: Not reported
 Resp Party Contact: Not reported
 Cause: Not reported
 Cause Type: Not reported
 Resp Party Name: Not reported

A2 **UNKNOWN**
Target **8621 436TH PL SE**
Property **NORTH BEND, WA**

WA HIST CDL **S105395913**
WA SPILLS **N/A**

Site 2 of 2 in cluster A

Actual: **HIST CDL:**
434 ft. Facility ID: 21076
Focus Map: Tax ID Number: 35240890270
8 Contamination Date: Not reported
 Remediation Date: 2/27/2002

SPILLS:
Name: UNKNOWN
Address: 8621 436TH PL SE
City,State,Zip: NORTH BEND, WA
Facility ID: 516273
Medium: Not reported
Material Desc: CHEMICAL
Material Qty: Not reported
Material Units: Not reported
Date Received: 02/13/2001
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNKNOWN (Continued)

S105395913

Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

B3 **SHAKE MILL LEFT BANK REVETMENT**
Target **8716 428TH AVE SE**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S123790350**
WA NPDES **N/A**

Site 1 of 3 in cluster B

Actual: **ALLSITES:**
424 ft. Name: SHAKE MILL LEFT BANK REVETMENT
Focus Map: Facility Id: 90753
8

NPDES:
Name: SHAKE MILL LEFT BANK REVETMENT
Address: 8716 428TH AVE SE
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR307879
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 05/08/2019
Days to Expiration: -443

B4 **KING CNTY NORTH FORK BRG 122I**
Target **T24N R83 S34**
Property **NORTH BEND, WA 98045**

WA ALLSITES **1001092199**
RCRA NonGen / NLR **WAR000008532**

Site 2 of 3 in cluster B

Actual: **ALLSITES:**
424 ft. Name: KING CNTY NORTH FORK BRG 122I
Focus Map: Facility Id: 63635197
8

Interaction: 55957
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAR000008532

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY NORTH FORK BRG 122I (Continued)

1001092199

Date Interaction: 1996-03-20 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.521474325
Longitude: -121.769405218

RCRA NonGen / NLR:

Date form received by agency: 1998-03-05 00:00:00.0
Facility name: KING CNTY NORTH FORK BRG 122I
Facility address: T24N R83 S34
NORTH BEND, WA 98045
EPA ID: WAR000008532
Mailing address: 400 YESLER WAY RM 400
SEATTLE, WA 98104
Contact: JERRY DAHL
Contact address: 400 YESLER WAY RM 400
SEATTLE, WA 98104
Contact country: US
Contact telephone: 206-296-6575
Contact email: Not reported
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: KING CNTY
Owner/operator address: 400 YESLER WAY RM 400
SEATTLE, WA 98104
Owner/operator country: US
Owner/operator telephone: 206-296-6575
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: KING CNTY
Owner/operator address: 400 YESLER WAY RM 400
SEATTLE, WA 98104
Owner/operator country: US
Owner/operator telephone: 206-296-6575
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: KING CNTY
Owner/operator address: 400 YESLER WAY RM 400
SEATTLE, WA 98104
Owner/operator country: US
Owner/operator telephone: 206-296-6575

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY NORTH FORK BRG 122I (Continued)

1001092199

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 1997-01-13 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 1998-03-05 00:00:00.0
Site name: KING CNTY NORTH FORK BRG 122I
Classification: Not a generator, verified

Date form received by agency: 1998-03-04 00:00:00.0
Site name: KING CNTY NORTH FORK BRG 122I
Classification: Not a generator, verified

Date form received by agency: 1998-03-03 00:00:00.0
Site name: KING CNTY NORTH FORK BRG 122I
Classification: Not a generator, verified

Date form received by agency: 1998-03-03 00:00:00.0
Site name: KING CNTY NORTH FORK BRG 122I
Classification: Not a generator, verified

Date form received by agency: 1996-03-20 00:00:00.0
Site name: KING CNTY NORTH FORK BRG 122I
Classification: Not a generator, verified

Violation Status: No violations found

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

B5 **KING CNTY NORTH FORK BRG 122I**
Target **T24N R83 S34**
Property **NORTH BEND, WA 98045**

FINDS **1016262452**
ECHO **N/A**

Site 3 of 3 in cluster B

Actual: **424 ft.** **FINDS:**
Focus Map: **8** **Registry ID:** 110008227846
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110008227846

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1016262452
Registry ID: 110008227846
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110008227846>

6 **PREVIOUS OWNER**
Target **43404 SE 92ND ST.**
Property **NORTH BEND, WA**

WA SPILLS **S107478823**
N/A

SPILLS:

Actual: **430 ft.** **Name:** PREVIOUS OWNER
Focus Map: **8** **Address:** 43404 SE 92ND ST.
City,State,Zip: NORTH BEND, WA
Facility ID: 425909
Medium: Not reported
Material Desc: PETROLEUM - OIL OTHER
Material Qty: 84
Material Units: GALLON
Date Received: 01/14/1997
Contact Name: STRANIK
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

7

WA ASBESTOS

S125607393

Target 9027 428TH AVENUE SE DINING ROOM (#5)
Property NORTH BEND, WA

N/A

ASBESTOS:

Actual:
424 ft.

Focus Map:
8

Name:	Not reported
Address:	9027 428TH AVENUE SE DINING ROOM (#5)
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	70432##1359InHou363506
Notice Date:	04/15/2013
Start Date:	05/06/2013
Completion Date:	05/09/2013
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Not reported
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125607393

Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	Not reported
Notice type:	Initial
Project Type:	Other Square Footage, Vinyl Asbestos Tile
Supervisor:	Katea Kinahoi ()
Supervisor Phone:	Not reported
Certificate Status:	Not reported
Name:	Not reported
Address:	9027 428TH AVENUE SE DINING ROOM (#5)
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	71309##1359InHou094730
Notice Date:	05/09/2013
Start Date:	05/06/2013
Completion Date:	05/08/2013
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125607393

Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Not reported
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125607393

Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	Not reported
Notice type:	Initial
Project Type:	Other Square Footage, Vinyl Asbestos Tile
Supervisor:	Katea Kinahoi ()
Supervisor Phone:	Not reported
Certificate Status:	Not reported

8
Target
Property

SCHLOCK PIT
NORTH BEND, WA 98045

MINES MRDS 1025660943
N/A

Actual:	MINES MRDS:	
423 ft.	Name:	SCHLOCK PIT
Focus Map:	Address:	Not reported
8	Deposit identification Number:	10179932
	City,State,Zip:	NORTH BEND, WASHINGTON 98045
	URL:	https://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10179932
	MRDS Identification Number:	Not reported
	MAS/MILS Identification Number:	0530330294
	Region:	NA
	Country:	United States
	Primary Commodities:	Sand and Gravel, Construction
	Secondary Commodities:	Not reported
	Tertiary Commodities:	Not reported
	Operation Type:	Surface
	Deposit Type:	Not reported
	Production Size:	Not reported
	Development Status:	Past Producer
	Ore Minerals or Materials:	Not reported
	Gangue Minerals or Materials:	Not reported
	Other Minerals or Materials:	Not reported
	Ore Body Form:	Not reported
	Workings Type:	Not reported
	Mineral Deposit Model:	Not reported
	Alteration Processes:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SCHLOCK PIT (Continued)

1025660943

Concentration Processes:	Not reported
Previous Names:	Schlock
Ore Controls:	Not reported
Reporter:	Ridenour, James
Host Rock Unit Name:	Not reported
Host Rock Type:	Not reported
Associated Rock Unit Name:	Not reported
Associated Rock Type Code:	Not reported
Structural Characteristics:	Not reported
Tectonic Setting:	Not reported
References:	Not reported
First Production Year:	Not reported
Began Before/After FPY:	Not reported
Last Production Year:	Not reported
Ended Before/After LPY:	Not reported
Year Discovered:	Not reported
Found Before/After YD:	Not reported
Production History:	Not reported
Discovery Information:	Not reported
Latitude:	47.51791
Longitude:	-121.77181

9
Target
Property

ANNIE
NORTH BEND, WA 98045

MINES MRDS 1025753185
N/A

Actual:
3472 ft.
Focus Map:
9

MINES MRDS:

Name:	ANNIE
Address:	Not reported
Deposit identification Number:	10281099
City,State,Zip:	NORTH BEND, WASHINGTON 98045
URL:	https://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10281099
MRDS Identification Number:	Not reported
MAS/MILS Identification Number:	0530330098
Region:	NA
Country:	United States
Primary Commodities:	Copper
Secondary Commodities:	Not reported
Tertiary Commodities:	Gold, Silver
Operation Type:	Unknown
Deposit Type:	Not reported
Production Size:	Not reported
Development Status:	Unknown
Ore Minerals or Materials:	Not reported
Gangue Minerals or Materials:	Not reported
Other Minerals or Materials:	Not reported
Ore Body Form:	Not reported
Workings Type:	Not reported
Mineral Deposit Model:	Not reported
Alteration Processes:	Not reported
Concentration Processes:	Not reported
Previous Names:	Not reported
Ore Controls:	Not reported
Reporter:	Ridenour, James
Host Rock Unit Name:	Not reported
Host Rock Type:	Not reported
Associated Rock Unit Name:	Not reported
Associated Rock Type Code:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ANNIE (Continued)

1025753185

Structural Characteristics:	Not reported
Tectonic Setting:	Not reported
References:	Not reported
First Production Year:	Not reported
Began Before/After FPY:	Not reported
Last Production Year:	Not reported
Ended Before/After LPY:	Not reported
Year Discovered:	Not reported
Found Before/After YD:	Not reported
Production History:	Not reported
Discovery Information:	Not reported
Latitude:	47.51041
Longitude:	-121.74291

C10

**Target
Property**

**NORTH BEND TREATMENT PLANT
NORTH BEND, WA**

WA SPILLS

**S118486646
N/A**

Site 1 of 4 in cluster C

**Actual:
436 ft.**

**Focus Map:
12**

SPILLS:	
Name:	Not reported
Address:	NORTH BEND TREATMENT PLANT
City,State,Zip:	NORTH BEND, WA
Facility ID:	86110
Medium:	Land
Material Desc:	Sewage/Sludge
Material Qty:	1500
Material Units:	Not reported
Date Received:	Not reported
Contact Name:	Not reported
Incident Date:	12/28/2015
Incident Category Type:	Non Oil
Incident Category:	Other Non-Oil
Latitude:	47.4994
Longitude:	-121.7869
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	1500
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	NORTH BEND TREATMENT PLANT

Name:	Not reported
Address:	NORTH BEND TREATMENT PLANT
City,State,Zip:	NORTH BEND, WA
Facility ID:	86110
Medium:	Land
Material Desc:	Sewage/Sludge
Material Qty:	1500
Material Units:	Not reported
Date Received:	Not reported
Contact Name:	Not reported
Incident Date:	12/28/2015
Incident Category Type:	Non Oil
Incident Category:	Other Non-Oil

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S118486646

Latitude: 47.4994
Longitude: -121.7869
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: 1500
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: NORTH BEND TREATMENT PLANT

C11 **NORTH BEND WWTP**
Target **400 BENDIGO BOULEVARD NORTH**
Property **NORTH BEND, WA**

WA RGA LF **S115351491**
N/A

Site 2 of 4 in cluster C

Actual: **435 ft.** RGA LF:
Focus Map: 2012 NORTH BEND WWTP 400 BENDIGO BOULEVARD NORTH
12 2011 NORTH BEND WWTP 400 BENDIGO BOULEVARD NORTH
2010 NORTH BEND WWTP 400 BENDIGO BOULEVARD NORTH

C12 **NORTH BEND STP**
Target **400 BENDIGO BLVD N**
Property **NORTH BEND, WA 98045**

FINDS **1004614125**
ECHO **N/A**

Site 3 of 4 in cluster C

Actual: **435 ft.** FINDS:
Focus Map: Registry ID: 110006684882
12 Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110006684882

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND STP (Continued)

1004614125

corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1004614125
Registry ID: 110006684882
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110006684882>

C13 NORTH BEND WASTEWATER TREATMENT PLANT
Target 400 BENDIGO BLVD N
Property NORTH BEND, WA 98045

WA SWF/LF S110336094
WA ALLSITES N/A
WA NPDES

Site 4 of 4 in cluster C

Actual:
435 ft.

Focus Map:
12

SWF/LF:
Name: NORTH BEND WWTP
Address: 400 BENDIGO BOULEVARD NORTH
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 325
Region: STATE
Permit Status: Not reported
Contact Organization: Not reported
Contact Address1: PO BOX 896
Contact Address2: Not reported
Contact City: NORTH BEND
Contact State: WA
Contact Postal: 98045
Contact EMail: ddeberg@northbendwa.gov
Contact Phone: Not reported
Contact Phone Ext: Not reported
Permit No: Not reported
Phone: Not reported
Operator Name: Not reported
Operator Organization: Not reported
Operator EMail: Not reported
Operator Title: Not reported
Recycle Survey Code: Not reported
Ownership: PUBLIC
Facility Type: Biosolids Management
Contact Name: Donald DeBerg
Contact Title: Not reported
Year Closed: Not reported
Open to Public Flag: No
Website: Not reported
Latitude: 47.49926
Longitude: -121.78679

ALLSITES:

Name: NORTH BEND WASTEWATER TREATMENT PLANT
Facility Id: 56772

NPDES:

Name: NORTH BEND WASTEWATER TREATMENT PLANT
Address: 400 BENDIGO BLVD N
City,State,Zip: NORTH BEND, WA 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND WASTEWATER TREATMENT PLANT (Continued)

S110336094

Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR306843
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 08/06/2018
Days to Expiration: -443

14
Target
Property

NORTH BEND CITY OF
400 NORTHBEND BLVD N
NORTH BEND, WA 98048

WA UST **U004251551**
N/A

UST:

Actual:
437 ft.
Focus Map:
12

Name: NORTH BEND CITY OF
Address: 400 NORTHBEND BLVD N
City: NORTH BEND
Zip: 98048
Facility ID: 38121329
Site Id: 10583
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.499021
Decimal Longitude: -121.78533

Tank Name: 1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Steel
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND CITY OF (Continued)

U004251551

Name: NORTH BEND CITY OF
Address: 400 NORTHBEND BLVD N
City: NORTH BEND
Zip: 98048

Tank Name: 2
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: NORTH BEND CITY OF
Address: 400 NORTHBEND BLVD N
City: NORTH BEND
Zip: 98048

Tank Name: ONE
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 07/17/1979
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Annual
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Manual Inventory Control (daily)
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Single Wall Pipe

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND CITY OF (Continued)

U004251551

Pipe Primary Release Detection: Safe Suction (No Leak Detection)
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Sacrificial Anode
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Not reported

15
Target **NORTH BEND WWTP**
Property **400 BENDIGO**
NORTH BEND, WA 98045

WA ALLSITES **S110276046**
N/A

Actual: **436 ft.**
Focus Map: **12**

ALLSITES:
Name: NORTH BEND WWTP
Facility Id: 21911

Interaction: 95533
Interaction 1: A
Interaction 2: ENFORFNL
Ecology Program: SOLIDWASTE
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 2011-01-21 00:00:00
Date Interaction 3: Enforcement Final
Latitude: 47.498858970000001
Longitude: -121.786729607

16
Target **106 E 6TH ST**
Property **NORTH BEND, WA**

WA SPILLS **S110628152**
N/A

Actual: **441 ft.**
Focus Map: **12**

SPILLS:
Name: Not reported
Address: 106 E 6TH ST
City,State,Zip: NORTH BEND, WA
Facility ID: 621448
Medium: SURFACE WATER-FRESH
Material Desc: OTHER - SEE NOTE
Material Qty: Not reported
Material Units: Not reported
Date Received: 07/27/2010
Contact Name: UNKNOWN
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

D17
Target
Property

ULID NO.6 PUMP STATION
356 BENDIGO BLVD N
NORTH BEND, WA 98045

FINDS
ECHO

1012224624
N/A

Site 1 of 2 in cluster D

Actual:
437 ft.
Focus Map:
12

FINDS:

Registry ID: 110040626356
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110040626356

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1012224624
Registry ID: 110040626356
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110040626356>

D18
Target
Property

ULID NO 6 PUMP STATION
356 BENDIGO BLVD N
NORTH BEND, WA 98045

WA ALLSITES
S110276151
N/A

Site 2 of 2 in cluster D

Actual:
437 ft.
Focus Map:
12

ALLSITES:

Name: ULID NO 6 PUMP STATION
Facility Id: 18666

Interaction: 91553
Interaction 1: I
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: ULID No.6 Pump Station
Program ID: WAR011853
Date Interaction: 2010-10-23 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.498731329000002
Longitude: -121.78581122

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

19

WA ASBESTOS

S121511845

Target 710 MALONEY GROVEW 13TH AVE SE LIVING AREA
Property NORTH BEND, WA 98045

N/A

ASBESTOS:

Actual:
451 ft.

Focus Map:
13

Name: Not reported
Address: 710 MALONEY GROVEW 13TH AVE SE LIVING AREA
City,State,Zip: NORTH BEND, WA 98045
Facility Type: SFR
Parent ID: 152627
Form ID: 152879##1427Affor584640
Notice Date: 12/13/2017
Start Date: 12/14/2017
Completion Date: 12/15/2017
Initial: Not reported
Amended: 1
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: 8:00 a.m.
Site Hours End: 2:30 p.m.
Sunday: Not reported
Monday: 1
Tuesday: 1
Wednesday: Not reported
Thursday: Not reported
Friday: Not reported
Saturday: Not reported
Contractor ID: Not reported
Phone: 425-512-8750
Job Site CAS: Anthony Chase
Project Form Email: ci@affenv.net
Property Owner Name: Not reported
Property Owner Agent: Ron Bowen
Property Owner Company: Affordable Environmental, Inc (ABCN00001427)
Property Owner Address: 11624 SE 5th St, Suite 200
Property Owner City: Bellevue
Property Owner State: wa
Property Owner Zip4: 98005
Property Owner Phone: 4257668579
Job Site Room: Living ARoa
Facility Age: 1980's
Facility Size: 230
Facility Remodel: Not reported
Facility Demo: 1
Facility Repair: Not reported
Facility Maint: Not reported
Removed: 1
Encapsulated: Not reported
Quantity Sq Ft: 230
Fireproofing: Not reported
Popcorn Ceiling: Not reported
CAB: Not reported
Sheet Vinyl: 1
Asbestos Paper: Not reported
Boiler Insulation: Not reported
Duct Paper: Not reported
VAT: Not reported
Roofing: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121511845

Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	1
Other Resp Pro:	1
Other Resp Pro Text:	PPE As Required
Comments:	Not reported
Date Time Submitted:	2017-12-13 15:59:14
Submitter IP Address:	71.227.209.17
Region:	2
UBI:	602577245
Notice type:	Initial
Project Type:	Sheet Vinyl
Supervisor:	Anthony Chase ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	710 MALONEY GROVEW 13TH AVE SE LIVING AREA
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	SFR
Parent ID:	0
Form ID:	152627###1427Affor563390
Notice Date:	12/07/2017
Start Date:	12/18/2017
Completion Date:	12/19/2017
Initial:	1
Amended:	Not reported
On Hold:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121511845

Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:00 a.m.
Site Hours End:	2:30 p.m.
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	425-512-8750
Job Site CAS:	Anthony Chase
Project Form Email:	ci@affenv.net
Property Owner Name:	Not reported
Property Owner Agent:	Ron Bowen
Property Owner Company:	Affordable Environmental, Inc (ABCN00001427)
Property Owner Address:	11624 SE 5th St, Suite 200
Property Owner City:	Bellevue
Property Owner State:	wa
Property Owner Zip4:	98005
Property Owner Phone:	4257668579
Job Site Room:	Living ARea
Facility Age:	1980's
Facility Size:	230
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	230
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121511845

Neg Pres Enclosure: 1
Glove Bag: Not reported
Mini Enclosure: Not reported
Critical Barriers: Not reported
Wrap And Cut: Not reported
Wet Methods: 1
HEPA Vacuum: 1
MANUALMETHODS : 1
Other CM1: Not reported
Other CM1 Text: Not reported
Other CM2: Not reported
Other CM2 Text: Not reported
Half Mask APR: 1
Full Face APR: Not reported
PAPR: Not reported
Type C Continuous: Not reported
Type C Pressure: 1
Other Resp Pro: 1
Other Resp Pro Text: PPE As Required
Comments: Not reported
Date Time Submitted: 2017-12-07 13:39:27
Submitter IP Address: 71.227.209.17
Region: 2
UBI: 602577245
Notice type: Initial
Project Type: Sheet Vinyl
Supervisor: Anthony Chase ()
Supervisor Phone: Not reported
Certificate Status: ACTIVE

20

Target 336 BENDIGO BLVD N
Property NORTH BEND, WA

WA ASBESTOS S125599344
N/A

ASBESTOS:

Actual:
441 ft.

Focus Map:
12

Name: Not reported
Address: 336 BENDIGO BLVD N
City,State,Zip: NORTH BEND, WA
Facility Type: Not reported
Parent ID: Not reported
Form ID: 34313##1338Ameri595749
Notice Date: 12/16/2009
Start Date: 12/15/2009
Completion Date: 12/31/2009
Initial: Not reported
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: Not reported
Site Hours End: Not reported
Sunday: Not reported
Monday: Not reported
Tuesday: Not reported
Wednesday: Not reported
Thursday: Not reported
Friday: Not reported
Saturday: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125599344

Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	American Environmental Constru (ABCN00001338)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125599344

Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	602131386
Notice type:	Initial
Project Type:	Roofing
Supervisor:	John Asselin ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	336 BENDIGO BLVD N
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	34289##1338Ameri182804
Notice Date:	12/15/2009
Start Date:	12/15/2009
Completion Date:	12/31/2009
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	American Environmental Constru (ABCN00001338)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125599344

Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	602131386
Notice type:	Initial
Project Type:	Roofing

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125599344

Supervisor:	John Asselin ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	336 BENDIGO BLVD N
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	34051##1338Ameri970185
Notice Date:	12/04/2009
Start Date:	12/15/2009
Completion Date:	12/31/2009
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	American Environmental Constr (ABCN00001338)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125599344

Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	602131386
Notice type:	Initial
Project Type:	Roofing
Supervisor:	John Asselin ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

21 **PARK AND RIDE & STREET IMPROV PROJECT**
Target **NORTH BEND WAY SYDNEY AVE N**
Property **NORTH BEND, WA 98045**

FINDS 1025806660
N/A

FINDS:

Actual: Registry ID: 110043825509
443 ft. Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110043825509

Focus Map: Environmental Interest/Information System:
12 Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARK AND RIDE & STREET IMPROV PROJECT (Continued)

1025806660

Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

22

Target
Property

709 NE 6TH ST
NORTH BEND, WA 98045

WA ASBESTOS S121365950
N/A

ASBESTOS:

Actual:	Name:	Not reported
450 ft.	Address:	709 NE 6TH ST
Focus Map:	City,State,Zip:	NORTH BEND, WA 98045
13	Facility Type:	House
	Parent ID:	0
	Form ID:	150639##1386Super635014
	Notice Date:	10/19/2017
	Start Date:	11/13/2017
	Completion Date:	11/14/2017
	Initial:	1
	Amended:	Not reported
	On Hold:	Not reported
	Off Hold:	Not reported
	Emergency:	Not reported
	Site Hours Start:	8am
	Site Hours End:	4pm
	Sunday:	Not reported
	Monday:	1
	Tuesday:	1
	Wednesday:	Not reported
	Thursday:	Not reported
	Friday:	Not reported
	Saturday:	Not reported
	Contractor ID:	Not reported
	Phone:	4254815391
	Job Site CAS:	Robert Escamilla
	Project Form Email:	hank.shubin@coit.com
	Property Owner Name:	Geoff Trowbridge
	Property Owner Agent:	Not reported
	Property Owner Company:	Superior Cleaning & Restoratio (ABCN00001386)
	Property Owner Address:	6207 Island Crest Way
	Property Owner City:	Mercer Island
	Property Owner State:	WA
	Property Owner Zip4:	98040
	Property Owner Phone:	206-276-8256
	Job Site Room:	Not reported
	Facility Age:	1957
	Facility Size:	1590
	Facility Remodel:	Not reported
	Facility Demo:	Not reported
	Facility Repair:	Not reported
	Facility Maint:	Not reported
	Removed:	1
	Encapsulated:	Not reported
	Quantity Sq Ft:	1000
	Fireproofing:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121365950

Popcorn Ceiling:	1
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	1
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2017-10-19 10:50:47
Submitter IP Address:	40.138.95.180
Region:	2
UBI:	602293355
Notice type:	Initial
Project Type:	Popcorn Ceiling
Supervisor:	Robert Escamilla ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E23 **NORTH BEND COMMUNITY CENTER**
Target **126 E 4TH ST**
Property **NORTH BEND, WA 98045**

WA VCP **S124435784**
N/A

Site 1 of 6 in cluster E

Actual: **444 ft.** **VCP:**
Focus Map: **12** **Name:** NORTH BEND COMMUNITY CENTER
Address: 126 E 4TH ST
City,State,Zip: NORTH BEND, WA 98045
edr_fstat: WA
edr_fzip: 98045
edr_fcnty: KING
edr_zip: Not reported
Facility ID: 7437936
VCP Status: Not reported
VCP: Not reported
Ecology Status: Not reported
NFA Type: Not reported
Date NFA: Not reported
Rank: Not reported
Cleanup Siteid: 2389
Contaminant Name: Petroleum Products-Unspecified
Soil: Confirmed Above Cleanup Levels

E24 **NORTH BEND COMMUNITY CENTER**
Target **126 E 4TH**
Property **NORTH BEND, WA 98045**

WA CSCSL **1007077278**
WA ALLSITES **N/A**
FINDS

Site 2 of 6 in cluster E

Actual: **444 ft.** **CSCSL:**
Focus Map: **12** **Name:** NORTH BEND COMMUNITY CENTER
Address: 126 E 4TH ST
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 7437936
Region: Northwest
Lat/Long: 47.497138243336 / -121.7827072154
Clean Up Siteid: 2389
Site Status: Cleanup Started
Contaminant Name: Petroleum Products-Unspecified
Alternate Site Names: Not reported
Site Rank: Not reported
Has Institutional Control: Not reported
Past VCP: True
Current VCP: Not reported
Ground Water: Not reported
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

ALLSITES:

Name: NORTH BEND COMMUNITY CENTER
Facility Id: 7437936

Interaction: 20739

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND COMMUNITY CENTER (Continued)

1007077278

Interaction 1: A
Interaction 2: SCS
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: NORTH BEND COMMUNITY CENTER
Program ID: Not reported
Date Interaction: 2004-06-14 00:00:00
Date Interaction 3: State Cleanup Site
Latitude: 47.49713268
Longitude: -121.782685242

Interaction: 20738
Interaction 1: I
Interaction 2: VOLCLNST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: NORTH BEND COMMUNITY CENTER
Program ID: NW0485
Date Interaction: 2000-05-31 00:00:00
Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.49713268
Longitude: -121.782685242

FINDS:

Registry ID: 110015539522
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015539522

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**E25
Target
Property**

**NORTH BEND COMMUNITY CENTER
126 E 4TH
NORTH BEND, WA**

**WA RGA HWS S115344404
N/A**

Site 3 of 6 in cluster E

**Actual:
444 ft.**

RGA HWS:

**Focus Map:
12**

2012	NORTH BEND COMMUNITY CENTER	126 E 4TH
2011	NORTH BEND COMMUNITY CENTER	126 E 4TH
2010	NORTH BEND COMMUNITY CENTER	126 E 4TH
2009	NORTH BEND COMMUNITY CENTER	126 E 4TH
2008	NORTH BEND COMMUNITY CENTER	126 E 4TH
2007	NORTH BEND COMMUNITY CENTER	126 E 4TH
2006	NORTH BEND COMMUNITY CENTER	126 E 4TH
2005	NORTH BEND COMMUNITY CENTER	126 E 4TH
2004	NORTH BEND COMMUNITY CENTER	126 E 4TH

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E26 **NORTH BEND COMMUNITY CENTER (EXEMPT)**
Target **126 E 4TH**
Property **NORTH BEND, WA**

WA RGA LUST **S115439776**
N/A

Site 4 of 6 in cluster E

Actual: **444 ft.** **RGA LUST:**

2003 NORTH BEND COMMUNITY CENTER (EXEMPT) 126 E 4TH
2002 NORTH BEND COMMUNITY CENTER (EXEMPT) 126 E 4TH

Focus Map:
12

E27 **NORTH BEND COMMUNITY CENTER**
Target **126 E 4TH**
Property **NORTH BEND, WA**

WA RGA LUST **S115439777**
N/A

Site 5 of 6 in cluster E

Actual: **444 ft.** **RGA LUST:**

2001 NORTH BEND COMMUNITY CENTER 126 E 4TH
2000 NORTH BEND COMMUNITY CENTER 126 E 4TH
1999 NORTH BEND COMMUNITY CENTER 126 E 4TH

Focus Map:
12

E28 **NORTH BEND COMMUNITY CENTER**
Target **126 E. 4TH**
Property **NORTH BEND, WA 98045**

WA ICR **S106249933**
N/A

Site 6 of 6 in cluster E

Actual: **444 ft.** **ICR:**

Focus Map:
12

Date Ecology Received Report: 02/09/99
Contaminants Found at Site: Petroleum products
Media Contaminated: Soil
Waste Management: Tank
Region: North Western
Type of Report Ecology Received: Interim cleanup report
Site Register Issue: 98-13
County Code: 17
Contact: Not reported
Report Title: Not reported

Date Ecology Received Report: 05/10/00
Contaminants Found at Site: Petroleum products
Media Contaminated: Groundwater, Soil
Waste Management: Tank
Region: North Western
Type of Report Ecology Received: Interim cleanup report
Site Register Issue: 98-28
County Code: 17
Contact: Not reported
Report Title: First Quarter 2000 Ground Water Monitoring

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

F29
Target
Property

NORTH BEND TESORO
302 BENDIGO BLVD N
NORTH BEND, WA 98045

EDR Hist Auto **1022106264**
N/A

Site 1 of 2 in cluster F

Actual:
441 ft.

EDR Hist Auto

Focus Map:
12

Year: Name:
2000 NORTH BEND TESORO

Type:
Gasoline Service Stations

G30
Target
Property

CAMP BROWN QUARRY
NORTH BEND, WA 98045

MINES MRDS **1025638642**
N/A

Site 1 of 2 in cluster G

Actual:
439 ft.

MINES MRDS:

Focus Map:
12

Name: CAMP BROWN QUARRY
Address: Not reported
Deposit identification Number: 10155843
City,State,Zip: NORTH BEND, WASHINGTON 98045
URL: https://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10155843
MRDS Identification Number: Not reported
MAS/MILS Identification Number: 0530331102
Region: NA
Country: United States
Primary Commodities: Stone, Dimension
Secondary Commodities: Not reported
Tertiary Commodities: Not reported
Operation Type: Surface
Deposit Type: Not reported
Production Size: Not reported
Development Status: Past Producer
Ore Minerals or Materials: Not reported
Gangue Minerals or Materials: Not reported
Other Minerals or Materials: Not reported
Ore Body Form: Not reported
Workings Type: Not reported
Mineral Deposit Model: Not reported
Alteration Processes: Not reported
Concentration Processes: Not reported
Previous Names: Not reported
Ore Controls: Not reported
Reporter: Western Field Operations Center (WFOC)
Host Rock Unit Name: Not reported
Host Rock Type: Not reported
Associated Rock Unit Name: Not reported
Associated Rock Type Code: Not reported
Structural Characteristics: Not reported
Tectonic Setting: Not reported
References: Not reported
First Production Year: Not reported
Began Before/After FPY: Not reported
Last Production Year: Not reported
Ended Before/After LPY: Not reported
Year Discovered: Not reported
Found Before/After YD: Not reported
Production History: Not reported
Discovery Information: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CAMP BROWN QUARRY (Continued)

1025638642

Latitude: 47.49701
Longitude: -121.78591

F31 MAINLINE 100 PIT
Target
Property NORTH BEND, WA 98045

MINES MRDS 1025750843
N/A

Site 2 of 2 in cluster F

Actual: MINES MRDS:
441 ft. Name: MAINLINE 100 PIT
Focus Map: Address: Not reported
12 Deposit identification Number: 10277406
City,State,Zip: NORTH BEND, WASHINGTON 98045
URL: https://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10277406
MRDS Identification Number: Not reported
MAS/MILS Identification Number: 0530331106
Region: NA
Country: United States
Primary Commodities: Stone, Dimension
Secondary Commodities: Not reported
Tertiary Commodities: Not reported
Operation Type: Surface
Deposit Type: Not reported
Production Size: Not reported
Development Status: Past Producer
Ore Minerals or Materials: Not reported
Gangue Minerals or Materials: Not reported
Other Minerals or Materials: Not reported
Ore Body Form: Not reported
Workings Type: Not reported
Mineral Deposit Model: Not reported
Alteration Processes: Not reported
Concentration Processes: Not reported
Previous Names: Not reported
Ore Controls: Not reported
Reporter: Western Field Operations Center (WFOC)
Host Rock Unit Name: Not reported
Host Rock Type: Not reported
Associated Rock Unit Name: Not reported
Associated Rock Type Code: Not reported
Structural Characteristics: Not reported
Tectonic Setting: Not reported
References: Not reported
First Production Year: Not reported
Began Before/After FPY: Not reported
Last Production Year: Not reported
Ended Before/After LPY: Not reported
Year Discovered: Not reported
Found Before/After YD: Not reported
Production History: Not reported
Discovery Information: Not reported
Latitude: 47.49701
Longitude: -121.78451

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

H32
Target
Property

OLYMPUS JOB 91 3593
S SIDE 101ST ST 1 BLK E OF
NORTH BEND, WA 98045

WA ALLSITES **S109553770**
N/A

Site 1 of 2 in cluster H

Actual:
437 ft.

ALLSITES:

Focus Map:
12

Name: OLYMPUS JOB 91 3593
Facility Id: 13322851
Interaction: 27433
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAD988491205
Date Interaction: 1991-08-22 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.496734551999999
Longitude: -121.791414174

Interaction: 126179
Interaction 1: A
Interaction 2: HWOTHER
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Olympus Job 91 3593
Program ID: WAD988491205
Date Interaction: 1991-08-22 00:00:00
Date Interaction 3: Haz Waste Management Acti
Latitude: 47.496734551999999
Longitude: -121.791414174

H33
Target
Property

OLYMPUS JOB 91 3593
S SIDE 101ST ST 1 BLK E OF 353
NORTH BEND, WA 98045

FINDS **1016262152**
ECHO **N/A**

Site 2 of 2 in cluster H

Actual:
437 ft.

FINDS:

Focus Map:
12

Registry ID: 110008223617
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110008223617

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1016262152
Registry ID: 110008223617

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLYMPUS JOB 91 3593 (Continued)

1016262152

DFR URL:

<http://echo.epa.gov/detailed-facility-report?fid=110008223617>

G34
Target
Property

G & S SERVICES INC
225 BENDIGO BLVD N
NORTH BEND, WA 98045

EDR Hist Auto

1021478299
N/A

Site 2 of 2 in cluster G

Actual:
440 ft.

EDR Hist Auto

Focus Map:
12

Year: Name:
1999 G & S SERVICES INC

Type:
Gasoline Service Stations, NEC

35

Target
Property

212 W SECOND ST THROUGHOUT
NORTH BEND, WA 98045

WA ASBESTOS

S119166834
N/A

ASBESTOS:

Actual:
440 ft.

Focus Map:
12

Name: Not reported
Address: 212 W SECOND ST THROUGHOUT
City,State,Zip: NORTH BEND, WA 98045
Facility Type: House
Parent ID: 0
Form ID: 131902##1427Affor553115
Notice Date: 09/06/2016
Start Date: 09/19/2016
Completion Date: 09/22/2016
Initial: 1
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: 8:00 AM
Site Hours End: 3:00 PM
Sunday: Not reported
Monday: 1
Tuesday: 1
Wednesday: 1
Thursday: 1
Friday: Not reported
Saturday: Not reported
Contractor ID: Not reported
Phone: 425-512-8750
Job Site CAS: Anthony Chase
Project Form Email: js@affenv.net
Property Owner Name: Tim Shoultz
Property Owner Agent: Not reported
Property Owner Company: Affordable Environmental, Inc (ABCN00001427)
Property Owner Address: 8201 164th Ave NE
Property Owner City: Redmond
Property Owner State: WA
Property Owner Zip4: 98052
Property Owner Phone: 425-285-4334
Job Site Room: throughout
Facility Age: 1970's
Facility Size: 2500

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119166834

Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	1658
Fireproofing:	Not reported
Popcorn Ceiling:	1
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	Drywall
Quantity Lin Ft:	240
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	1
Lin Ft Other1 Text:	window ACM Caulking
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	1
PAPR:	Not reported
Type C Continuous:	1
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2016-09-06 06:12:54
Submitter IP Address:	73.193.81.219
Region:	2
UBI:	602577245
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Popcorn Ceiling, Sheet

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119166834

Supervisor: Vinyl
Supervisor Phone: Anthony Chase ()
Certificate Status: Not reported
ACTIVE

I36 MOFFAT DISTRIBUTING COMPANY*
Target 107 SIDNEY ST N
Property NORTH BEND, WA 98045

EDR Hist Auto 1020166920
N/A

Site 1 of 5 in cluster I

Actual: EDR Hist Auto
440 ft.

Focus Map:	Year:	Name:	Type:
12	1969	MOFFAT DISTRIBUTING CO INC	Toys And Hobby Goods And Supplies
	1970	MOFFAT DISTRIBUTING CO INC	Toys And Hobby Goods And Supplies
	1971	MOFFAT DISTRIBUTING CO INC	Toys And Hobby Goods And Supplies
	1972	MOFFAT DISTRIBUTING CO INC	Toys And Hobby Goods And Supplies
	1973	MOFFAT DISTRIBUTING CO INC	Gasoline Service Stations
	1974	MOFFAT DISTRIBUTING COMPANY*	Gasoline Service Stations
	1975	MOFFAT DISTRIBUTING COMPANY*	Gasoline Service Stations
	1976	MOFFAT DISTRIBUTING COMPANY*	Gasoline Service Stations
	1977	MOFFAT DISTRIBUTING COMPANY*	Gasoline Service Stations
	1978	MOFFAT DISTRIBUTING COMPANY*	Gasoline Service Stations
	1979	MOFFAT DISTRIBUTING COMPANY*	Gasoline Service Stations
	1980	MOFFAT DISTRIBUTING COMPANY*	Gasoline Service Stations
	1982	MOFFAT DISTRIBUTING COMPANY*	Gasoline Service Stations
	1983	MOFFAT DISTRIBUTING COMPANY*	Gasoline Service Stations

I37 BRYANS ONE STOP
Target 302 W NORTH BEND WAY
Property NORTH BEND, WA

WA RGA LUST S115431319
N/A

Site 2 of 5 in cluster I

Actual:	RGA LUST:	Year:	Name:	Address:
441 ft.		2010	BRYANS ONE STOP	302 W NORTH BEND WAY
Focus Map:		2009	BRYANS ONE STOP	302 W NORTH BEND WAY
12				

I38 BRYANS ONE STOP
Target 302 W NORTH BEND WAY
Property NORTH BEND, WA 98045

WA HSL 1007065221
WA CSCSL N/A
WA LUST
WA UST
WA ALLSITES
FINDS

Site 3 of 5 in cluster I

Actual:	HSL:	Name:	Address:
441 ft.		CHEVRON STATION NORTH BEND	Not reported
Focus Map:		City,State,Zip:	NORTH BEND, WA
12		edr_fstat:	WA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BRYANS ONE STOP (Continued)

1007065221

edr_fzip: Not reported
edr_fcnty: KING
edr_zip: Not reported
Facility Type: Hazardous Sites List
Facility Status: Cleanup Started
FSID Number: 77989332
Rank: 1
Region: NW
EDR Link ID: 77989332
Region Decode: NORTHWEST REGIONAL OFFICE

CSCSL:

Name: CHEVRON STATION NORTH BEND
Address: 302 W NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 77989332
Region: Northwest
Lat/Long: 47.496397924746 / -121.7881133912
Clean Up Siteid: 10507
Site Status: Cleanup Started
Contaminant Name: Benzene
Alternate Site Names: BROWN P:ETROLEUM LLC,BRYANS ONE STOP,NICHOLAS IMPORT SERVICES INC
Site Rank: 1 - Highest Assessed Risk
Has Institutional Control:Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: CHEVRON STATION NORTH BEND
Address: 302 W NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 77989332
Region: Northwest
Lat/Long: 47.496397924746 / -121.7881133912
Clean Up Siteid: 10507
Site Status: Cleanup Started
Contaminant Name: Petroleum-Diesel
Alternate Site Names: BROWN P:ETROLEUM LLC,BRYANS ONE STOP,NICHOLAS IMPORT SERVICES INC
Site Rank: 1 - Highest Assessed Risk
Has Institutional Control:Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: CHEVRON STATION NORTH BEND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BRYANS ONE STOP (Continued)

1007065221

Address: 302 W NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 77989332
Region: Northwest
Lat/Long: 47.496397924746 / -121.7881133912
Clean Up Siteid: 10507
Site Status: Cleanup Started
Contaminant Name: Petroleum-Gasoline
Alternate Site Names: BROWN P:ETROLEUM LLC,BRYANS ONE STOP,NICHOLAS IMPORT SERVICES INC
Site Rank: 1 - Highest Assessed Risk
Has Institutional Control:Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: CHEVRON STATION NORTH BEND
Address: 302 W NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 77989332
Region: Northwest
Lat/Long: 47.496397924746 / -121.7881133912
Clean Up Siteid: 10507
Site Status: Cleanup Started
Contaminant Name: Petroleum-Other
Alternate Site Names: BROWN P:ETROLEUM LLC,BRYANS ONE STOP,NICHOLAS IMPORT SERVICES INC
Site Rank: 1 - Highest Assessed Risk
Has Institutional Control:Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

LUST:

Name: CHEVRON STATION NORTH BEND
Address: 302 W NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 77989332
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 10507
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: BROWN P:ETROLEUM LLC,BRYANS ONE STOP,NICHOLAS IMPORT SERVICES INC
Response Section: Northwest
Release Date: 02/28/1992
Lust Date: 10/24/2007
Region: Northwest

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BRYANS ONE STOP (Continued)

1007065221

Lust ID: 1592
UST ID: 8310
Contaminant Name: Petroleum-Other
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4963979 / -121.78811

Name: CHEVRON STATION NORTH BEND
Address: 302 W NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 77989332
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 10507
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: BROWN P:ETROLEUM LLC,BRYANS ONE STOP,NICHOLAS IMPORT SERVICES INC
Response Section: Northwest
Release Date: 02/28/1992
Lust Date: 10/24/2007
Region: Northwest
Lust ID: 1592
UST ID: 8310
Contaminant Name: Petroleum-Gasoline
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4963979 / -121.78811

Name: CHEVRON STATION NORTH BEND
Address: 302 W NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 77989332
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 10507
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: BROWN P:ETROLEUM LLC,BRYANS ONE STOP,NICHOLAS IMPORT SERVICES INC
Response Section: Northwest
Release Date: 02/28/1992
Lust Date: 10/24/2007
Region: Northwest
Lust ID: 1592
UST ID: 8310
Contaminant Name: Benzene
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BRYANS ONE STOP (Continued)

1007065221

Lat/Long: 47.4963979 / -121.78811

Name: CHEVRON STATION NORTH BEND
Address: 302 W NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 77989332
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 10507
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: BROWN P:ETROLEUM LLC,BRYANS ONE STOP,NICHOLAS IMPORT SERVICES INC
Response Section: Northwest
Release Date: 02/28/1992
Lust Date: 10/24/2007
Region: Northwest
Lust ID: 1592
UST ID: 8310
Contaminant Name: Petroleum-Diesel
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4963979 / -121.78811

UST:

Name: BRYANS ONE STOP
Address: 302 W NORTH BEND WAY
City: NORTH BEND
Zip: 98045
Facility ID: 77989332
Site Id: 8310
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.4963979247464
Decimal Longitude: -121.788113391297

Tank Name: 1
Tag Number: A8114
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1972
Tank Closure Date: 07/12/2010
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: 12/17/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Impressed Current and Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Fiberglass

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BRYANS ONE STOP (Continued)

1007065221

Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: BRYANS ONE STOP
Address: 302 W NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 2
Tag Number: A8114
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1972
Tank Closure Date: 07/12/2010
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: 12/17/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Impressed Current and Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Fiberglass
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: BRYANS ONE STOP
Address: 302 W NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 3
Tag Number: A8114
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1972
Tank Closure Date: 07/12/2010
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: 12/17/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Steel

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BRYANS ONE STOP (Continued)

1007065221

Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Impressed Current and Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Fiberglass
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: BRYANS ONE STOP
Address: 302 W NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 4
Tag Number: A8114
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1972
Tank Closure Date: 07/12/2010
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: 12/17/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Impressed Current and Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Fiberglass
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: BRYANS ONE STOP
Facility Id: 77989332

Interaction: 64411
Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BRYANS ONE STOP (Continued)

1007065221

Program ID: 8310
Date Interaction: 1972-01-01 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.496393046999998
Longitude: -121.788088554

Interaction: 64412
Interaction 1: A
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 8310
Date Interaction: 1992-02-28 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.496393046999998
Longitude: -121.788088554

FINDS:

Registry ID: 110015417912
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015417912

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

I39
Target
Property

BRYAN'S ONE STOP
302 W NORTH BEND WAY
NORTH BEND, WA

WA RGA LUST S115431318
N/A

Site 4 of 5 in cluster I

Actual:
441 ft.
Focus Map:
12

RGA LUST:

2008	BRYAN'S ONE STOP	302 W NORTH BEND WAY
2007	BRYAN'S ONE STOP	302 W NORTH BEND WAY
2006	BRYAN'S ONE STOP	302 W NORTH BEND WAY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

I40
Target
Property

NORTH BEND TESORO
302 W NORTH BEND WAY
NORTH BEND, WA

WA RGA LUST **S115439779**
N/A

Site 5 of 5 in cluster I

Actual: **441 ft.** **RGA LUST:**

2005	NORTH BEND TESORO	302 W NORTH BEND WAY
2004	NORTH BEND TESORO	302 W NORTH BEND WAY
2003	NORTH BEND TESORO	302 W NORTH BEND WAY
2002	NORTH BEND TESORO	302 W NORTH BEND WAY
2001	NORTH BEND TESORO	302 W NORTH BEND WAY

Focus Map:
12

41
Target
Property

CHEVRON - NORTH BEND
302 NORTH BEND WAY
NORTH BEND, WA 98045

WA ICR **S103506441**
N/A

Actual: **441 ft.** **Focus Map:**
12

ICR:

Date Ecology Received Report:	03/20/92
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Soil
Waste Management:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	92-21
County Code:	17
Contact:	Not reported
Report Title:	Not reported

J42
Target
Property

KING CNTY DOT 428TH
428TH AVE SE CROSSING
NORTH BEND, WA 98045

WA ALLSITES **1010337766**
RCRA NonGen / NLR **WAH000024120**

Site 1 of 3 in cluster J

Actual: **443 ft.** **Focus Map:**
12

ALLSITES:

Name:	KING CNTY DOT 428TH
Facility Id:	8942198
Interaction:	23762
Interaction 1:	I
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAH000024120
Date Interaction:	2004-07-29 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.495994328999998
Longitude:	-121.787285221

RCRA NonGen / NLR:

Date form received by agency: 2005-03-11 00:00:00.0

Facility name: KING CNTY DOT 428TH

Facility address: 428TH AVE SE CROSSING
MIDDLE FORK SNOQUALMIE RIVER
NORTH BEND, WA 98045

EPA ID: WAH000024120

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT 428TH (Continued)

1010337766

Mailing address: 201 S JACKSON ST
MS KSC TR 0231
SEATTLE, WA 98104

Contact: ERICK THOMPSON
Contact address: 201 S JACKSON ST MS KSC TR 0231
SEATTLE, WA 98104

Contact country: US
Contact telephone: 206-296-8747
Contact email: ERICK.THOMPSON@METROKC.GOV
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: KING CNTY DOT ROAD SERVICES DIV
Owner/operator address: 201 S JACKSON ST MS KSC TR 0231
SEATTLE, WA 98104

Owner/operator country: US
Owner/operator telephone: 206-296-8747
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: KING CNTY DOT ROAD SERVICES DIV
Owner/operator address: 201 S JACKSON ST MS KSC TR 0231
SEATTLE, WA 98104

Owner/operator country: US
Owner/operator telephone: 206-296-8747
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2004-12-31 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: BELLAH, SAM
Owner/operator address: 201 S JACKSON ST MS KSC TR 0231
SEATTLE, WA 98104

Owner/operator country: US
Owner/operator telephone: 206-296-8747
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT 428TH (Continued)

1010337766

Recycler of hazardous waste: No
 Transporter of hazardous waste: No
 Treater, storer or disposer of HW: No
 Underground injection activity: No
 On-site burner exemption: No
 Furnace exemption: No
 Used oil fuel burner: No
 Used oil processor: No
 User oil refiner: No
 Used oil fuel marketer to burner: No
 Used oil Specification marketer: No
 Used oil transfer facility: No
 Used oil transporter: No

Historical Generators:

Date form received by agency: 2005-03-10 00:00:00.0
 Site name: KING CNTY DOT 428TH
 Classification: Not a generator, verified

Date form received by agency: 2005-03-10 00:00:00.0
 Site name: KING CNTY DOT 428TH
 Classification: Not a generator, verified

Date form received by agency: 2005-03-10 00:00:00.0
 Site name: KING CNTY DOT 428TH
 Classification: Not a generator, verified

Date form received by agency: 2004-07-29 00:00:00.0
 Site name: KING CNTY DOT 428TH
 Classification: Large Quantity Generator

Hazardous Waste Summary:

. Waste code: D008
 . Waste name: LEAD

 . Waste code: WP02
 . Waste name: Washington State Dangerous Persistent Waste containing Halogenated Organic Compounds (HOC) at a total concentration level of 0.01% to 1.0%.

Violation Status: No violations found

J43 **KING CNTY DOT 428TH**
Target **ON 428TH AVE SE CROSSING OVER**
Property **NORTH BEND, WA 98045**

FINDS **1007676952**
ECHO **N/A**

Site 2 of 3 in cluster J

Actual: **FINDS:**
443 ft. Registry ID: 110017939506
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110017939506
12

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT 428TH (Continued)

1007676952

facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1007676952
Registry ID: 110017939506
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110017939506>

K44 **NORTH BEND CY OF**
Target **211 MAIN AV N**
Property **NORTH BEND, WA 98045**

FTTS **1010007736**
N/A

Site 1 of 2 in cluster K

Actual: FTTS INSP:
442 ft. Inspection Number: 19880322WA003 1
Focus Map: Region: 10
12 Inspection Date: 03/22/88
Inspector: MAULE
Violation occurred: No
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

K45 **NORTH BEND CY OF**
Target **211 MAIN AV N**
Property **NORTH BEND, WA 98045**

HIST FTTS **1008186087**
N/A

Site 2 of 2 in cluster K

Actual: HIST FTTS INSP:
442 ft. Inspection Number: 19880322WA003 1
Focus Map: Region: 10
12 Inspection Date: Not reported
Inspector: MAULE
Violation occurred: No
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

L46

Target
Property

128 BENDIGO BLVD NORTH
NORTH BEND, WA 98045

WA ASBESTOS

S121511239
N/A

Site 1 of 2 in cluster L

Actual:
443 ft.

Focus Map:
12

ASBESTOS:

Name:	Not reported
Address:	128 BENDIGO BLVD NORTH
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	Commercial
Parent ID:	153937
Form ID:	154818##1222North922120
Notice Date:	02/01/2018
Start Date:	02/03/2018
Completion Date:	02/28/2018
Initial:	Not reported
Amended:	1
On Hold:	Not reported
Off Hold:	1
Emergency:	Not reported
Site Hours Start:	2:00 PM
Site Hours End:	12:00 AM
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	1
Contractor ID:	Not reported
Phone:	4258810623
Job Site CAS:	Juan Gonzalez
Project Form Email:	staylor@northstar.com
Property Owner Name:	Not reported
Property Owner Agent:	Ethan Hennessey
Property Owner Company:	Northstar CG, LP (ABCN00001222)
Property Owner Address:	1100 Olive Way Suite 800
Property Owner City:	Seattle
Property Owner State:	WA
Property Owner Zip4:	98101
Property Owner Phone:	2067264737
Job Site Room:	Not reported
Facility Age:	unknown
Facility Size:	unknown
Facility Remodel:	1
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	900
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121511239

VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Project off hold. Site work hours and days updated.
Date Time Submitted:	2018-02-01 12:24:13
Submitter IP Address:	50.226.138.146
Region:	2
UBI:	602614420
Notice type:	Initial
Project Type:	Vinyl Asbestos Tile
Supervisor:	Juan Gonzalez ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	128 BENDIGO BLVD NORTH
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	Commercial
Parent ID:	153937
Form ID:	155401##1222North679578
Notice Date:	02/15/2018
Start Date:	02/03/2018
Completion Date:	03/31/2018
Initial:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121511239

Amended:	1
On Hold:	Not reported
Off Hold:	1
Emergency:	Not reported
Site Hours Start:	2:00 PM
Site Hours End:	12:00 AM
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	1
Contractor ID:	Not reported
Phone:	4258810623
Job Site CAS:	Juan Gonzalez
Project Form Email:	staylor@northstar.com
Property Owner Name:	Not reported
Property Owner Agent:	Ethan Hennessey
Property Owner Company:	Northstar CG, LP (ABCN00001222)
Property Owner Address:	1100 Olive Way Suite 800
Property Owner City:	Seattle
Property Owner State:	WA
Property Owner Zip4:	98101
Property Owner Phone:	2067264737
Job Site Room:	Not reported
Facility Age:	unknown
Facility Size:	unknown
Facility Remodel:	1
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	900
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121511239

Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Project on hold. completion date extended
Date Time Submitted:	2018-02-15 14:51:28
Submitter IP Address:	50.226.138.146
Region:	2
UBI:	602614420
Notice type:	Initial
Project Type:	Vinyl Asbestos Tile
Supervisor:	Juan Gonzalez ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	128 BENDIGO BLVD NORTH
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	Commercial
Parent ID:	153937
Form ID:	155402##1222North679578
Notice Date:	02/15/2018
Start Date:	02/03/2018
Completion Date:	03/31/2018
Initial:	Not reported
Amended:	1
On Hold:	1
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	2:00 PM
Site Hours End:	12:00 AM
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	1
Contractor ID:	Not reported
Phone:	4258810623

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121511239

Job Site CAS:	Juan Gonzalez
Project Form Email:	staylor@northstar.com
Property Owner Name:	Not reported
Property Owner Agent:	Ethan Hennessey
Property Owner Company:	Northstar CG, LP (ABCN00001222)
Property Owner Address:	1100 Olive Way Suite 800
Property Owner City:	Seattle
Property Owner State:	WA
Property Owner Zip4:	98101
Property Owner Phone:	2067264737
Job Site Room:	Not reported
Facility Age:	unknown
Facility Size:	unknown
Facility Remodel:	1
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	900
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121511239

Full Face APR: Not reported
PAPR: Not reported
Type C Continuous: Not reported
Type C Pressure: Not reported
Other Resp Pro: Not reported
Other Resp Pro Text: Not reported
Comments: Project on hold. completion date extended
Date Time Submitted: 2018-02-15 14:54:28
Submitter IP Address: 50.226.138.146
Region: 2
UBI: 602614420
Notice type: Initial
Project Type: Vinyl Asbestos Tile
Supervisor: Juan Gonzalez ()
Supervisor Phone: Not reported
Certificate Status: ACTIVE

Name: Not reported
Address: 128 BENDIGO BLVD NORTH
City,State,Zip: NORTH BEND, WA 98045
Facility Type: Commercial
Parent ID: 0
Form ID: 153937##1222North025110
Notice Date: 01/11/2018
Start Date: 02/03/2018
Completion Date: 02/28/2018
Initial: 1
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: 7:00 AM
Site Hours End: 3:30 PM
Sunday: Not reported
Monday: 1
Tuesday: 1
Wednesday: 1
Thursday: 1
Friday: 1
Saturday: Not reported
Contractor ID: Not reported
Phone: 4258810623
Job Site CAS: Juan Gonzalez
Project Form Email: staylor@northstar.com
Property Owner Name: Not reported
Property Owner Agent: Ethan Hennessey
Property Owner Company: Northstar CG, LP (ABCN00001222)
Property Owner Address: 1100 Olive Way Suite 800
Property Owner City: Seattle
Property Owner State: WA
Property Owner Zip4: 98101
Property Owner Phone: 2067264737
Job Site Room: Not reported
Facility Age: unknown
Facility Size: unknown
Facility Remodel: 1
Facility Demo: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121511239

Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	900
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2018-01-11 14:22:41
Submitter IP Address:	50.226.138.146
Region:	2
UBI:	602614420
Notice type:	Initial
Project Type:	Vinyl Asbestos Tile
Supervisor:	Juan Gonzalez ()
Supervisor Phone:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121511239

Certificate Status: ACTIVE

J47 **WA DOT BRG 202/066**
Target **MP 29.50-29.59**
Property **NORTH BEND, WA 98045**

FINDS **1011399091**
ECHO **N/A**

Site 3 of 3 in cluster J

Actual: **FINDS:**
444 ft. Registry ID: 110035443179
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110035443179
12

Environmental Interest/Information System:

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RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1011399091
Registry ID: 110035443179
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110035443179>

L48 **WA DOT BRG 202/066**
Target **MP 29.50-29.59**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S109053318**
WA MANIFEST **N/A**

Site 2 of 2 in cluster L

Actual: **ALLSITES:**
444 ft. Name: WA DOT BRG 202/066
Focus Map: Facility Id: 4130071
12

Interaction: 14066
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAH000031408
Date Interaction: 2007-07-13 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.495685328999997
Longitude: -121.786588221

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WA DOT BRG 202/066 (Continued)

S109053318

Interaction: 14067
Interaction 1: I
Interaction 2: HWOTHER
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAH000031408
Date Interaction: 2007-12-31 00:00:00
Date Interaction 3: Haz Waste Management Acti
Latitude: 47.495685328999997
Longitude: -121.786588221

WA MANIFEST:

Name: WA DOT BRG 202/066
Address: MP 29.50-29.59
City,State,Zip: NORTH BEND, WA 98045
Facility Address 2: Not reported
Facility ID: 4130071
EPA ID: WAH000031408
NAICS: 48849
State Waste Code Desc: Not reported
Federal Waste Code Desc: Not reported
Form Comm: Not reported
Data Year: Not reported
Permit by Rule: F
Mailing Address 2: Not reported
Treatment by Generator: F
Mixed Radioactive Waste: F
Importer of Hazardous Waste: F
Immediate Recycler: F
Treatment/Storage/Disposal/Recycling Facility: F
Generator of Dangerous Fuel Waste: F
Generator Marketing to Burner: F
Other Marketers (i.e., blender, distributor, etc.): F
Utility Boiler Burner: F
Industry Boiler Burner: F
Industrial Furnace: F
Smelter Defferal: F
Universal Waste: Not reported
Off-Specification: Not reported
LN Address 2: Not reported
Tax Reg #: 916001068
Business Type: Transportation
Mail Name: WSDOT NWR Facilities HazMat
Mailing Address: 6431 Corson Ave S
Mailing City,State,Zip: Seattle, WA 98108-3445
Legal Organization Name: WSDOT NWR Facilities HazMat
Legal Organization Type: State
Legal Contact: Not reported
Legal Address: 6431 Corson Ave S
Legal Address 2: Not reported
Legal City,State,Zip: Seattle, WA 98108-3445
Legal Phone Number: (206)768-5866
Legal Effective Date: 01/01/2007
Land Organization Name: WSDOT NWR Facilities HazMat
Land Organization Type: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WA DOT BRG 202/066 (Continued)

S109053318

Land Contact:	Not reported
Land Address:	6431 Corson Ave S
Land City,State,Zip:	Seattle, WA 98108-3445
Land Phone Number:	(206)768-5866
Operator Organization Name:	WSDOT NWR Facilities HazMat
Operator Organization Type:	State
Operator:	Robert Jackson
Operator Address:	6431 Corson Ave S
Operator Address 2:	Not reported
Operator City,State,Zip:	Seattle, WA 98108-3445
Operator Phone Number:	(206)768-3445
Operator Effective Date:	01/01/2007
Site Contact:	Robert Jackson
Site Contact Address:	6431 Corson Ave S
Contact City,State,Zip:	Seattle, WA 98108-3445
Site Contact Phone Number:	(206)768-3445
Site Contact Email:	jacksoR@wsdot.wa.gov
Gen Status Code:	SQG
Monthly Generation:	F
Batch Generation:	T
One Time Generation:	F
Transport Own Waste:	F
Tranports Other Waste:	F
Recycler Onsite:	F
Transfer Facility:	F
Other Exemption:	Not reported
UW Battery Gen:	F
Used Oil Transporter:	F
Used Oil Transfer Facility:	F
Used Oil Processor:	F
Used Oil Refiner:	F
Used Oil Fuel Marketer Directs Shipments:	F
Used Oil Fuel Marketer Meets Specs:	F
Site Contact Address 2:	Not reported

M49 **TELEPHONE UTILITIES OF WASHINGTON NORTH BEND**
Target **131 2ND ST EAST**
Property **NORTH BEND, WA 98045**

WA UST **U001124915**
N/A

Site 1 of 5 in cluster M

Actual:	UST:	
443 ft.	Name:	TELEPHONE UTILITIES OF WASHINGTON NORTH BEND
Focus Map:	Address:	131 2ND ST EAST
12	City:	NORTH BEND
	Zip:	98045
	Facility ID:	22472173
	Site Id:	7284
	UBI:	Not reported
	Phone Number:	Not reported
	Decimal Latitude:	47.495109
	Decimal Longitude:	-121.785435
	Tank Name:	1
	Tag Number:	Not reported
	Tank Status:	Removed
	Tank Status Date:	08/06/1996
	Tank Install Date:	01/01/1968

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TELEPHONE UTILITIES OF WASHINGTON NORTH BEND (Continued)

U001124915

Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Not reported
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Other
Tank Manifold:	Not reported
Tank Release Detection:	Other
Tank SFC Type:	Not reported
Pipe Material:	Other
Pipe Construction:	Other
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	Northwest
Dispencer/Pump SFC Type:	Not reported

M50 **PACIFIC TELECOM**
Target **131 2ND ST. E.**
Property **NORTH BEND, WA 98045**

WA ICR **S103508566**
N/A

Site 2 of 5 in cluster M

Actual:	ICR:	
443 ft.	Date Ecology Received Report:	09/12/94
Focus Map:	Contaminants Found at Site:	Petroleum products
12	Media Contaminated:	Soil
	Waste Management:	Tank
	Region:	North Western
	Type of Report Ecology Received:	Interim cleanup report
	Site Register Issue:	93-36
	County Code:	17
	Contact:	Not reported
	Report Title:	Not reported

N51 **PLAT OF RIVER GLEN**
Target **PICKETT AVE**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S119162373**
N/A

Site 1 of 2 in cluster N

Actual:	ALLSITES:	
453 ft.	Name:	PLAT OF RIVER GLEN
Focus Map:	Facility Id:	17798
13		
	Interaction:	120337
	Interaction 1:	A
	Interaction 2:	UIC
	Ecology Program:	WATQUAL
	Program Data:	UIC
	Facility Alt.:	Plat of River Glen

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PLAT OF RIVER GLEN (Continued)

S119162373

Program ID: 33405
Date Interaction: 2016-10-12 00:00:00
Date Interaction 3: Underground Injection Con
Latitude: 47.495284994999999
Longitude: -121.77066628999999

N52
Target
Property

PLAT OF RIVER GLEN
PICKETT AVE,
NORTH BEND, WA 98045

WA UIC **S121083737**
N/A

Site 2 of 2 in cluster N

Actual: **453 ft.**
Focus Map: **13**

UIC:
Name: PLAT OF RIVER GLEN
Address: PICKETT AVE,
City,State,Zip: NORTH BEND, WA 98045
Site Number: 33405
Owner Name: River Glen Home Owner's Association
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.495471
Longitude: 121.76946
Well Name: Trench 3
Registration Type: Municipal Stormwater
Construction Date: 10/12/2016
Construction Type: Infiltration trench with perforated pipe
Depth: 3

O53
Target
Property

TOLLGATE FARM PARK
N BEND WAY & BENDIGO BLVD
NORTH BEND, WA 98045

WA ALLSITES **S113831099**
N/A

Site 1 of 2 in cluster O

Actual: **444 ft.**
Focus Map: **12**

ALLSITES:
Name: TOLLGATE FARM PARK
Facility Id: 15915
Interaction: 105655
Interaction 1: A
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Tollgate Farm Park
Program ID: WAR127272
Date Interaction: 2013-04-30 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.501701998999998
Longitude: -121.7956611

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

M54

Target
Property

142 MAIN AVE N
NORTH BEND, WA

WA ASBESTOS

S125591151
N/A

Site 3 of 5 in cluster M

Actual:
443 ft.

Focus Map:
12

ASBESTOS:

Name:	Not reported
Address:	142 MAIN AVE N
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	75991##1338Ameri035556
Notice Date:	08/30/2013
Start Date:	08/30/2013
Completion Date:	09/20/2013
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	American Environmental Constru (ABCN00001338)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125591151

VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	602131386
Notice type:	Initial
Project Type:	Other Square Footage, Vinyl Asbestos Tile
Supervisor:	Charley Bainard ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	142 MAIN AVE N
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	76071##1338Ameri754034
Notice Date:	09/03/2013
Start Date:	08/30/2013
Completion Date:	08/30/2013
Initial:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125591151

Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	American Environmental Constr (ABCN00001338)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125591151

Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	602131386
Notice type:	Initial
Project Type:	Other Square Footage, Vinyl Asbestos Tile
Supervisor:	Charley Bainard ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	142 MAIN AVE N
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	75479##1338Ameri104984
Notice Date:	08/19/2013
Start Date:	08/30/2013
Completion Date:	09/20/2013
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125591151

Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	American Environmental Constr (ABCN00001338)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125591151

Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	602131386
Notice type:	Initial
Project Type:	Other Square Footage, Vinyl Asbestos Tile
Supervisor:	John Asselin ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

O55
Target **NORTH BEND CHEVRON**
Property **201 W NORTH BEND WAY**
NORTH BEND, WA 98045

EDR Hist Auto **1021874438**
N/A

Site 2 of 2 in cluster O

Actual: EDR Hist Auto
444 ft.

Focus Map:	Year:	Name:	Type:
12	1987	NORTH BEND CHEVRON	Gasoline Service Stations
	1988	NORTH BEND CHEVRON	Gasoline Service Stations

P56
Target **111 MAIN AVE N.**
Property **NORTH BEND, WA 98045**

WA ASBESTOS **S119163677**
N/A

Site 1 of 4 in cluster P

Actual:	ASBESTOS:
444 ft.	Name:
	Address:
Focus Map:	City,State,Zip:
12	Facility Type:
	Parent ID:
	Form ID:
	Notice Date:
	Start Date:
	Completion Date:
	Initial:
	Amended:
	On Hold:
	Off Hold:
	Emergency:
	Site Hours Start:
	Site Hours End:
	Sunday:
	Monday:
	Tuesday:
	Wednesday:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119163677

Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	206 -228-4290
Job Site CAS:	Jesus Mapelli Sr.
Project Form Email:	turbo.ruiz1@comcast.net
Property Owner Name:	Glaziers City Of North Bend
Property Owner Agent:	Don B.
Property Owner Company:	One Step Environmental Abateme (ABCN00001337)
Property Owner Address:	PO Box 896
Property Owner City:	North Bend
Property Owner State:	Wa
Property Owner Zip4:	98045
Property Owner Phone:	425-888-7652
Job Site Room:	Not reported
Facility Age:	1914
Facility Size:	1500
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	1500
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	1
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	1
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119163677

Other CM1: Not reported
Other CM1 Text: Not reported
Other CM2: Not reported
Other CM2 Text: Not reported
Half Mask APR: 1
Full Face APR: Not reported
PAPR: Not reported
Type C Continuous: Not reported
Type C Pressure: Not reported
Other Resp Pro: Not reported
Other Resp Pro Text: Not reported
Comments: Not reported
Date Time Submitted: 2014-06-11 10:31:07
Submitter IP Address: 98.225.25.31
Region: 2
UBI: 602107921
Notice type: Initial
Project Type: Cement Asbestos Board (CAB)
Supervisor: Jesus Mapelli Sr. ()
Supervisor Phone: Not reported
Certificate Status: ACTIVE

P57 **SALLAL WATER ASSOC**
Target **107 MAIN AVE N**
Property **NORTH BEND, WA 98045**

FTTS **1004613587**
HIST FTTS **N/A**

Site 2 of 4 in cluster P

Actual: **444 ft.** **FTTS INSP:**
Focus Map: **12** **Inspection Number:** 19880322WA003 3
Region: 10
Inspection Date: 03/22/88
Inspector: MAULE
Violation occurred: No
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: For Cause, Private Citizen/Press Complaint
Legislation Code: TSCA
Facility Function: User

HIST FTTS INSP:
Inspection Number: 19880322WA003 3
Region: 10
Inspection Date: Not reported
Inspector: MAULE
Violation occurred: No
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: For Cause, Private Citizen/Press Complaint
Legislation Code: TSCA
Facility Function: User

Map ID	MAP FINDINGS			
Direction				
Distance				
Elevation	Site	Database(s)	EDR ID Number	EPA ID Number
P58	LOVELAND CHEVROLET		FINDS	1007063750
Target	106 MAIN ST			N/A
Property	NORTH BEND, WA 98045			
	Site 3 of 4 in cluster P			
Actual:	FINDS:			
444 ft.	Registry ID:	110015403017		
Focus Map:	Facility URL:	http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015403017		
12				
	Environmental Interest/Information System:			
	Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.			
	Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.			
M59	TELEPHONE UTILITIES OF WA NORTH BEND		FINDS	1007074278
Target	131 2ND ST E			N/A
Property	NORTH BEND, WA 98045			
	Site 4 of 5 in cluster M			
Actual:	FINDS:			
444 ft.	Registry ID:	110015509154		
Focus Map:	Facility URL:	http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015509154		
12				
	Environmental Interest/Information System:			
	Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.			
	Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.			
60	235 EAST 3RD STREET ENTRY, KITCHEN	WA ASBESTOS	S121068515	
Target	NORTH BEND, WA 98045		N/A	
Property				
	ASBESTOS:			
	Name:	Not reported		
Actual:	Address:	235 EAST 3RD STREET ENTRY, KITCHEN		
446 ft.	City,State,Zip:	NORTH BEND, WA 98045		
Focus Map:	Facility Type:	Single Family Residence		
12	Parent ID:	138293		
	Form ID:	138791##1210Therm350459		
	Notice Date:	02/20/2017		
	Start Date:	02/20/2017		
	Completion Date:	02/28/2017		
	Initial:	Not reported		
	Amended:	1		
	On Hold:	1		

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121068515

Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	7:00 a.m.
Site Hours End:	3:30 p.m.
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	1
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	253-984-1818
Job Site CAS:	Troy Harris
Project Form Email:	debif@ttnw-inc.com
Property Owner Name:	Charles Jackson
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	235 East 3rd St
Property Owner City:	North Bend
Property Owner State:	WA
Property Owner Zip4:	98045
Property Owner Phone:	206-914-6187
Job Site Room:	entry, kitchen
Facility Age:	1949
Facility Size:	1570 SF
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	1
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	124
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	sink undercoating
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121068515

Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	ON HOLD Monday 2-20-17 at 710am-owner was not ready.
Date Time Submitted:	2017-02-20 07:11:21
Submitter IP Address:	75.151.101.37
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other Square Footage, Sheet Vinyl
Supervisor:	Troy Harris ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	235 EAST 3RD STREET ENTRY, KITCHEN
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	Single Family Residence
Parent ID:	138293
Form ID:	145417##1210Therm611856
Notice Date:	06/30/2017
Start Date:	02/20/2017
Completion Date:	06/30/2017
Initial:	Not reported
Amended:	1
On Hold:	Not reported
Off Hold:	1
Emergency:	Not reported
Site Hours Start:	1:30 p.m.
Site Hours End:	1:30 p.m.
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	1
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	253-984-1818
Job Site CAS:	Troy Harris
Project Form Email:	debif@ttnw-inc.com

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121068515

Property Owner Name:	Charles Jackson
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	235 East 3rd St
Property Owner City:	North Bend
Property Owner State:	WA
Property Owner Zip4:	98045
Property Owner Phone:	206-914-6187
Job Site Room:	entry, kitchen
Facility Age:	1949
Facility Size:	1570 SF
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	1
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	124
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	sink undercoating
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121068515

Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	OFF HOLD and cancelled as of Friday 6-30-17 at 130pm. No work was performed onsite under this notification to date.
Date Time Submitted:	2017-06-30 13:31:01
Submitter IP Address:	75.151.101.37
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other Square Footage, Sheet Vinyl
Supervisor:	Troy Harris ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	235 EAST 3RD STREET ENTRY, KITCHEN
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	Single Family Residence
Parent ID:	138293
Form ID:	139112##1210Therm258444
Notice Date:	02/27/2017
Start Date:	02/20/2017
Completion Date:	06/30/2017
Initial:	Not reported
Amended:	1
On Hold:	1
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	7:00 a.m.
Site Hours End:	3:30 p.m.
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	1
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	253-984-1818
Job Site CAS:	Troy Harris
Project Form Email:	debif@tnw-inc.com
Property Owner Name:	Charles Jackson
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	235 East 3rd St
Property Owner City:	North Bend
Property Owner State:	WA
Property Owner Zip4:	98045
Property Owner Phone:	206-914-6187
Job Site Room:	entry, kitchen
Facility Age:	1949
Facility Size:	1570 SF
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121068515

Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	124
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	sink undercoating
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Still on Hold as of Monday 2-27-17 at 1140am-Amend completion date to Friday 6-30-17.
Date Time Submitted:	2017-02-27 11:43:12
Submitter IP Address:	75.151.101.37
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other Square Footage, Sheet Vinyl
Supervisor:	Troy Harris ()
Supervisor Phone:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121068515

Certificate Status:	ACTIVE
Name:	Not reported
Address:	235 EAST 3RD STREET ENTRY, KITCHEN
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	Single Family Residence
Parent ID:	0
Form ID:	138293##1210Therm405853
Notice Date:	02/09/2017
Start Date:	02/20/2017
Completion Date:	02/28/2017
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	7:00 a.m.
Site Hours End:	3:30 p.m.
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	1
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	253-984-1818
Job Site CAS:	Troy Harris
Project Form Email:	debif@ttnw-inc.com
Property Owner Name:	Charles Jackson
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	235 East 3rd St
Property Owner City:	North Bend
Property Owner State:	WA
Property Owner Zip4:	98045
Property Owner Phone:	206-914-6187
Job Site Room:	entry, kitchen
Facility Age:	1949
Facility Size:	1570 SF
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	1
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	124
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121068515

Sq Ft Other Text:	sink undercoating
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2017-02-09 09:06:33
Submitter IP Address:	75.151.101.37
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other Square Footage, Sheet Vinyl
Supervisor:	Troy Harris ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

P61 CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU
Target 106 MAIN AVE N
Property NORTH BEND, WA 98045

WA UST 1000659710
WA ALLSITES WAD988493862
RCRA NonGen / NLR
FINDS
ECHO

Site 4 of 4 in cluster P

Actual:	UST:	
444 ft.	Name:	LOVELAND CHEVROLET
Focus Map:	Address:	106 MAIN ST
12	City:	NORTH BEND
	Zip:	98045
	Facility ID:	87445666
	Site Id:	101691
	UBI:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU (Continued)

1000659710

Phone Number: Not reported
Decimal Latitude: 47.494704
Decimal Longitude: -121.786971

Tank Name: 1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: LOVELAND CHEVROLET
Address: 106 MAIN ST
City: NORTH BEND
Zip: 98045

Tank Name: 2
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU (Continued)

1000659710

Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU
Facility Id: 6719324

Interaction: 19453
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAD988493862
Date Interaction: 1991-09-23 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.495204329000003
Longitude: -121.786625222

Name: LOVELAND CHEVROLET
Facility Id: 87445666

Interaction: 69641
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 101691
Date Interaction: 1992-07-10 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.494698329000002
Longitude: -121.786956221

RCRA NonGen / NLR:

Date form received by agency: 2004-06-24 00:00:00.0
Facility name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU
Facility address: 106 MAIN AVE N
NORTH BEND, WA 98045
EPA ID: WAD988493862
Contact: JOEL CHURCH
Contact address: 106 MAIN AVE N
NORTH BEND, WA 98045
Contact country: US
Contact telephone: 425-888-0781
Contact email: JOELE55@EARTHLINK.NET
EPA Region: 10
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU (Continued)

1000659710

Owner/Operator Summary:

Owner/operator name: LOVELAND, HUGO
Owner/operator address: 111 N BEND WAY
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 425-391-1578
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAR
Owner/operator address: 15000 SE EASTGATE WAY
BELLEVUE, WA 98007
Owner/operator country: US
Owner/operator telephone: 425-641-2002
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2000-01-01 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: MAXEY, MARK
Owner/operator address: 106 MAIN AVE N
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 425-888-0781
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU (Continued)

1000659710

Historical Generators:

Date form received by agency: 2004-06-23 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Not a generator, verified

Date form received by agency: 2004-06-23 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Not a generator, verified

Date form received by agency: 2003-12-31 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Not a generator, verified

Date form received by agency: 2003-02-07 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Not a generator, verified

Date form received by agency: 2002-05-23 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2000-12-11 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2000-03-01 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2000-01-06 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2000-01-06 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Not a generator, verified

Date form received by agency: 1999-03-26 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 1997-06-09 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 1996-03-01 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Small Quantity Generator

Date form received by agency: 1994-01-01 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Not a generator, verified

Date form received by agency: 1993-12-31 00:00:00.0

Site name: CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU

Classification: Small Quantity Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHAPLINS NORTH BEND CHEVROLET OLDS SUBAU (Continued)

1000659710

Violation Status: No violations found

FINDS:

Registry ID: 110005366460
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110005366460

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000659710
Registry ID: 110005366460
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110005366460>

62
Target
Property

WA DNR NORTH BEND
205 BALLARET
NORTH BEND, WA 98045

FINDS **1007072667**
N/A

FINDS:

Registry ID: 110015492947
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015492947

Actual:
444 ft.

Focus Map:
12

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

M63
Target
Property

CENTURYTEL NORTH BEND
131 2ND AVE E
NORTH BEND, WA 98045

WA LUST
WA ALLSITES
WA CSCSL NFA
FINDS

1007072754
N/A

Site 5 of 5 in cluster M

Actual:
444 ft.
Focus Map:
12

LUST:
Name: PACIFIC TELECOM
Address: 131 2ND ST E
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 22472173
Lust Status Type: LUST - NFA
Cleanup Site ID: 8320
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: TELEPHONE UTILITIES OF WA NORTH BEND, TELEPHONE UTILITIES OF WASHINGTON
NORTH BEND
Response Section: Northwest
Release Date: 07/05/1994
Lust Date: 10/03/2011
Region: Northwest
Lust ID: 3516
UST ID: 7284
Contaminant Name: Petroleum-Diesel
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.495109 / -121.78543

ALLSITES:

Name: CENTURYTEL NORTH BEND
Facility Id: 31962197

Interaction: 37700
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Not reported
Program ID: CRK000045910
Date Interaction: 1998-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.358049336000001
Longitude: -121.780266255

Name: TELEPHONE UTILITIES OF WA NORTH BEND
Facility Id: 22472173

Interaction: 32483
Interaction 1: I
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 7284

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTURYTEL NORTH BEND (Continued)

1007072754

Date Interaction: 1994-07-05 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.495103329000003
Longitude: -121.785420221

Interaction: 32482
Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 7284
Date Interaction: 1968-01-01 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.495103329000003
Longitude: -121.785420221

CSCSL NFA:

Name: PACIFIC TELECOM
Address: 131 2ND ST E
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 22472173
CS Id: 8320
NFA Date: 10/03/2011
Alternate Site Names: TELEPHONE UTILITIES OF WA NORTH BEND, TELEPHONE UTILITIES OF WASHINGTON
NORTH BEND
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Diesel
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.495109
Longitude: -121.785435

FINDS:

Registry ID: 110015493820
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015493820

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

Q64 **FLOYDS COMPLETE SERVICES INC**
Target **106 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

WA UST **U003294827**
WA ALLSITES **N/A**

Site 1 of 4 in cluster Q

Actual:
445 ft.

UST:

Focus Map:
12

Name: FLOYDS COMPLETE SERVICES INC
Address: 106 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045
Facility ID: 19924895
Site Id: 389
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.494674
Decimal Longitude: -121.786801

Tank Name: 1 SKY
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 04/15/1972
Tank Closure Date: 10/29/2000
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Manual Inventory Control (daily)
Tank SFC Type: Not reported
Pipe Material: Steel
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Sacrificial Anode
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: FLOYDS COMPLETE SERVICES INC
Address: 106 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 2 FIRE
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 04/15/1972
Tank Closure Date: 09/13/2000
Capacity Range: 1,101 to 2,000 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FLOYDS COMPLETE SERVICES INC (Continued)

U003294827

Tank Spill Prevention: None
 Tank Overfill Prevention: None
 Tank Material: Not reported
 Tank Construction: Single Wall Tank
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: None
 Tank Manifold: Not reported
 Tank Release Detection: Manual Inventory Control (daily)
 Tank SFC Type: Not reported
 Pipe Material: Not reported
 Pipe Construction: Single Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Not reported
 Pipe Corrosion Protection: Sacrificial Anode
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Not reported

Name: FLOYDS COMPLETE SERVICES INC
 Address: 106 E NORTH BEND WAY
 City: NORTH BEND
 Zip: 98045

Tank Name: 3 L FREE
 Tag Number: Not reported
 Tank Status: Removed
 Tank Status Date: 08/06/1996
 Tank Install Date: 04/15/1972
 Tank Closure Date: 09/13/2000
 Capacity Range: Not reported
 Tank Permit Expiration Date: Not reported
 Tank Upgrade Date: Not reported
 Tank Spill Prevention: None
 Tank Overfill Prevention: None
 Tank Material: Not reported
 Tank Construction: Single Wall Tank
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: None
 Tank Manifold: Not reported
 Tank Release Detection: Manual Inventory Control (daily)
 Tank SFC Type: Not reported
 Pipe Material: Not reported
 Pipe Construction: Single Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Not reported
 Pipe Corrosion Protection: Sacrificial Anode
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Not reported

Name: FLOYDS COMPLETE SERVICES INC
 Address: 106 E NORTH BEND WAY
 City: NORTH BEND
 Zip: 98045

Tank Name: 4 WASTE OIL
 Tag Number: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FLOYDS COMPLETE SERVICES INC (Continued)

U003294827

Tank Status: Removed
 Tank Status Date: 08/06/1996
 Tank Install Date: 04/15/1972
 Tank Closure Date: 09/13/2000
 Capacity Range: Not reported
 Tank Permit Expiration Date: Not reported
 Tank Upgrade Date: Not reported
 Tank Spill Prevention: None
 Tank Overfill Prevention: None
 Tank Material: Not reported
 Tank Construction: Single Wall Tank
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: None
 Tank Manifold: Not reported
 Tank Release Detection: Manual Inventory Control (daily)
 Tank SFC Type: Not reported
 Pipe Material: Not reported
 Pipe Construction: Not reported
 Pipe Primary Release Detection: Vapor Monitoring
 Pipe Second Release Detection: Not reported
 Pipe Corrosion Protection: None
 Pipe Pumping System: Product Removed by Reclaimer
 Responsible Unit: Northwest
 Dispencer/Pump SFC Type: Not reported

ALLSITES:

Name: FLOYDS COMPLETE SERVICES INC
 Facility Id: 19924895

Interaction: 31358
 Interaction 1: A
 Interaction 2: UST
 Ecology Program: TOXICS
 Program Data: UST
 Facility Alt.: Not reported
 Program ID: 389
 Date Interaction: 1972-04-15 00:00:00
 Date Interaction 3: Underground Storage Tank
 Latitude: 47.494668329
 Longitude: -121.786786221

Q65 FLOYDS COMPLETE SERVICES INC
Target 106 E NORTH BEND WAY
Property NORTH BEND, WA 98045

FINDS 1007074585
N/A

Site 2 of 4 in cluster Q

Actual: 445 ft. FINDS:
 Registry ID: 110015512266
Focus Map: 12 Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015512266

Environmental Interest/Information System:

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Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FLOYDS COMPLETE SERVICES INC (Continued)

1007074585

Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water
Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access
additional FINDS: detail in the EDR Site Report.

Q66
Target
Property

CLARKE FLOYD M
FIRST AVE E & MAIN
NORTH BEND, WA 98045

EDR Hist Auto

1021480631
N/A

Site 3 of 4 in cluster Q

Actual:
445 ft.

EDR Hist Auto

Focus Map:
12

Year: Name:
1969 CLARKE FLOYD M
1970 CLARKE FLOYD M

Type:
Gasoline Service Stations
Gasoline Service Stations

R67
Target
Property

ARCO SELF SERVICE
201 N BEND BLVD N
NORTH BEND, WA 98045

EDR Hist Auto

1021492231
N/A

Site 1 of 2 in cluster R

Actual:
444 ft.

EDR Hist Auto

Focus Map:
12

Year: Name:
1995 ARCO SELF SERVICE
1996 ARCO SELF SERVICE

Type:
Gasoline Service Stations
Gasoline Service Stations

Q68
Target
Property

CLARKE FLOYD M
104 1ST AVE
NORTH BEND, WA 98045

EDR Hist Auto

1021056428
N/A

Site 4 of 4 in cluster Q

Actual:
445 ft.

EDR Hist Auto

Focus Map:
12

Year: Name:
1971 CLARKE FLOYD M
1972 CLARKE FLOYD M
1973 CLARKE FLOYD M
1974 CLARKE FLOYD M
1975 CLARKE FLOYD M
1976 CLARKE FLOYD M
1977 CLARKE FLOYD M
1978 CLARKE FLOYD M
1979 CLARKE FLOYD M
1980 CLARKE FLOYD M
1982 CLARKE FLOYD M
1983 CLARKE FLOYD M
1985 FLOYDS COMPLETE SERVICE INC
1986 FLOYDS COMPLETE SERVICE INC

Type:
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

S69
Target
Property

RESIDENCE E 3RD ST
349 E 3RD ST
NORTH BEND, WA

WA RGA LUST

S115441835
N/A

Site 1 of 5 in cluster S

Actual:
448 ft.

RGA LUST:

2000 RESIDENCE E 3RD ST 349 E 3RD ST

Focus Map:
12

S70
Target
Property

RESIDENCE GREW
349 E 3RD ST
NORTH BEND, WA 98045

WA ALLSITES
WA CSCSL NFA
FINDS

1007063909
N/A

Site 2 of 5 in cluster S

Actual:
448 ft.

ALLSITES:

Focus Map:
12

Name:

RESIDENCE GREW

Facility Id:

86393988

Interaction:

69060

Interaction 1:

I

Interaction 2:

VOLCLNST

Ecology Program:

TOXICS

Program Data:

ISIS

Facility Alt.:

RESIDENCE GREW

Program ID:

Not reported

Date Interaction:

1998-09-08 00:00:00

Date Interaction 3:

Voluntary Cleanup Sites

Latitude:

47.494457328000003

Longitude:

-121.780587223

CSCSL NFA:

Name:

RESIDENCE GREW

Address:

349 E 3RD ST

City,State,Zip:

NORTH BEND, WA 98045

Facility/Site Id:

86393988

CS Id:

608

NFA Date:

03/17/2000

Alternate Site Names:

Not reported

NFA Reason:

NFA-Voluntary Cleanup Program Review

Site Status:

NFA

Region:

Northwest

Contaminant Name:

Petroleum Products-Unspecified

Ground Water:

Not reported

Surface Water:

Not reported

Soil:

Remediated

Sediment:

Not reported

Air:

Not reported

Bedrock:

Not reported

Latitude:

47.494463

Longitude:

-121.780602

FINDS:

Registry ID:

110015404604

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RESIDENCE GREW (Continued)

1007063909

Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015404604

Environmental Interest/Information System:

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[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

S71
Target
Property

RESIDENCE
349 E. 3RD ST.
NORTH BEND, WA 98045

WA ICR **S106249937**
N/A

Site 3 of 5 in cluster S

Actual: 448 ft.
Focus Map: 12

ICR:

Date Ecology Received Report:	11/21/97
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Groundwater, Soil
Waste Management:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	98-15
County Code:	17
Contact:	Not reported
Report Title:	Not reported

S72
Target
Property

RESIDENCE GREW
349 E 3RD ST
NORTH BEND, WA 98045

WA VCP **S124436316**
N/A

Site 4 of 5 in cluster S

Actual: 448 ft.
Focus Map: 12

VCP:

Name:	RESIDENCE GREW
Address:	349 E 3RD ST
City,State,Zip:	NORTH BEND, WA 98045
edr_fstat:	WA
edr_fzip:	98045
edr_fcnty:	KING
edr_zip:	Not reported
Facility ID:	86393988
VCP Status:	Not reported
VCP:	NFA
Ecology Status:	Not reported
NFA Type:	Not reported
Date NFA:	2000-03-17
Rank:	Not reported
Cleanup Siteid:	608
Contaminant Name:	Petroleum Products-Unspecified
Soil:	Remediated

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

S73 **NORTH BEND ELEMENTARY SCHOOL**
Target **400 E 3RD ST**
Property **NORTH BEND, WA 98045**

CA HAZNET **S113185891**
N/A

Site 5 of 5 in cluster S

Actual:
449 ft.

Focus Map:
12

HAZNET:

Name: NORTH BEND ELEMENTARY SCHOOL
Address: 400 E 3RD ST
Address 2: Not reported
City,State,Zip: NORTH BEND, WA 980450000
Contact: CARL LARSON
Telephone: 4258882334
Mailing Name: Not reported
Mailing Address: 8001 SILVA AVE SE

Year: 1998
Gepaid: WAC980827040
TSD EPA ID: CAD044429835
CA Waste Code: 551 - Laboratory waste chemicals
Disposal Method: D99 - Disposal, Other
Tons: 0.019

Additional Info:

Year: 1998
Gen EPA ID: WAC980827040

Shipment Date: 19980828
Creation Date: 12/7/1998 0:00:00
Receipt Date: 19980929
Manifest ID: 98342887
Trans EPA ID: WAD981765969
Trans Name: Not reported
Trans 2 EPA ID: DER000000968
Trans 2 Name: Not reported
TSDF EPA ID: CAD044429835
Trans Name: Not reported
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
CA Waste Code: 551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code: D001
Disposal Method: D99 - Disposal, Other
Quantity Tons: 0.005
Waste Quantity: 10
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19980828
Creation Date: 12/7/1998 0:00:00
Receipt Date: 19980929
Manifest ID: 98342887
Trans EPA ID: WAD981765969
Trans Name: Not reported
Trans 2 EPA ID: DER000000968

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND ELEMENTARY SCHOOL (Continued)

S113185891

Trans 2 Name:	Not reported
TSDf EPA ID:	CAD044429835
Trans Name:	Not reported
TSDf Alt EPA ID:	Not reported
TSDf Alt Name:	Not reported
CA Waste Code:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D007
Disposal Method:	D99 - Disposal, Other
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19980828
Creation Date:	12/7/1998 0:00:00
Receipt Date:	19980929
Manifest ID:	98342887
Trans EPA ID:	WAD981765969
Trans Name:	Not reported
Trans 2 EPA ID:	DER000000968
Trans 2 Name:	Not reported
TSDf EPA ID:	CAD044429835
Trans Name:	Not reported
TSDf Alt EPA ID:	Not reported
TSDf Alt Name:	Not reported
CA Waste Code:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D002
Disposal Method:	D99 - Disposal, Other
Quantity Tons:	0.009
Waste Quantity:	18
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

T74
Target
Property

WA DNR NORTH BEND
205 BALLARET
NORTH BEND, WA 98045

WA UST
WA ALLSITES
WA CSCSL NFA

U001123387
N/A

Site 1 of 3 in cluster T

Actual:	UST:	
446 ft.	Name:	WA DNR NORTH BEND
Focus Map:	Address:	205 BALLARET
12	City:	NORTH BEND
	Zip:	98045
	Facility ID:	32541339
	Site Id:	3916
	UBI:	Not reported
	Phone Number:	Not reported
	Decimal Latitude:	47.4948068819875
	Decimal Longitude:	-121.78369571365

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WA DNR NORTH BEND (Continued)

U001123387

Tank Name: 1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: WA DNR NORTH BEND
Facility Id: 32541339

Interaction: 118795
Interaction 1: A
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: WA DNR NORTH BEND
Program ID: 3916
Date Interaction: 1991-04-16 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.494802184999998
Longitude: -121.783681133

Interaction: 37969
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 3916
Date Interaction: 2000-03-20 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.494802184999998
Longitude: -121.783681133

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WA DNR NORTH BEND (Continued)

U001123387

CSCSL NFA:

Name: DNR NORTH BEND
Address: 223 E 2ND ST
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 32541339
CS Id: 8714
NFA Date: 02/15/2018
Alternate Site Names: WA DNR NORTH BEND
NFA Reason: NFA-Independent Cleanup Reviewed by Ecology
Site Status: NFA
Region: Northwest
Contaminant Name: Benzene
Ground Water: Remediated-Below
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.494806882
Longitude: -121.78369571

Name: DNR NORTH BEND
Address: 223 E 2ND ST
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 32541339
CS Id: 8714
NFA Date: 02/15/2018
Alternate Site Names: WA DNR NORTH BEND
NFA Reason: NFA-Independent Cleanup Reviewed by Ecology
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Diesel
Ground Water: Remediated-Below
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.494806882
Longitude: -121.78369571

Name: DNR NORTH BEND
Address: 223 E 2ND ST
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 32541339
CS Id: 8714
NFA Date: 02/15/2018
Alternate Site Names: WA DNR NORTH BEND
NFA Reason: NFA-Independent Cleanup Reviewed by Ecology
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Gasoline
Ground Water: Remediated-Below
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WA DNR NORTH BEND (Continued)

U001123387

Bedrock: Not reported
Latitude: 47.494806882
Longitude: -121.78369571

Name: DNR NORTH BEND
Address: 223 E 2ND ST
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 32541339
CS Id: 8714
NFA Date: 02/15/2018
Alternate Site Names: WA DNR NORTH BEND
NFA Reason: NFA-Independent Cleanup Reviewed by Ecology
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Other
Ground Water: Remediated-Below
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.494806882
Longitude: -121.78369571

T75 DNR NORTH BEND
Target 223 E 2ND ST
Property NORTH BEND, WA 98045

WA LUST S121927803
N/A

Site 2 of 3 in cluster T

Actual: LUST:
446 ft. Name: DNR NORTH BEND
Focus Map: Address: 223 E 2ND ST
12 City,State,Zip: NORTH BEND, WA 98045
Facility ID: 32541339
Lust Status Type: LUST - NFA
Cleanup Site ID: 8714
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: WA DNR NORTH BEND
Response Section: Northwest
Release Date: 04/16/1991
Lust Date: 02/15/2018
Region: Northwest
Lust ID: 933
UST ID: 3916
Contaminant Name: Petroleum-Diesel
Ground Water: Remediated-Below
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4948068 / -121.78369

Name: DNR NORTH BEND
Address: 223 E 2ND ST
City,State,Zip: NORTH BEND, WA 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DNR NORTH BEND (Continued)

S121927803

Facility ID: 32541339
Lust Status Type: LUST - NFA
Cleanup Site ID: 8714
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: WA DNR NORTH BEND
Response Section: Northwest
Release Date: 04/16/1991
Lust Date: 02/15/2018
Region: Northwest
Lust ID: 933
UST ID: 3916
Contaminant Name: Benzene
Ground Water: Remediated-Below
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4948068 / -121.78369

Name: DNR NORTH BEND
Address: 223 E 2ND ST
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 32541339
Lust Status Type: LUST - NFA
Cleanup Site ID: 8714
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: WA DNR NORTH BEND
Response Section: Northwest
Release Date: 04/16/1991
Lust Date: 02/15/2018
Region: Northwest
Lust ID: 933
UST ID: 3916
Contaminant Name: Petroleum-Other
Ground Water: Remediated-Below
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4948068 / -121.78369

Name: DNR NORTH BEND
Address: 223 E 2ND ST
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 32541339
Lust Status Type: LUST - NFA
Cleanup Site ID: 8714
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: WA DNR NORTH BEND
Response Section: Northwest
Release Date: 04/16/1991
Lust Date: 02/15/2018

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DNR NORTH BEND (Continued)

S121927803

Region: Northwest
Lust ID: 933
UST ID: 3916
Contaminant Name: Petroleum-Gasoline
Ground Water: Remediated-Below
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4948068 / -121.78369

T76 **DEPARTMENT OF NATURAL RESOURCES - NORTH BEND**
Target **223 E. 2ND ST.**
Property **NORTH BEND, WA 98045**

WA ICR **S103506686**
N/A

Site 3 of 3 in cluster T

Actual: **446 ft.** **ICR:**
Focus Map: **12** **Date Ecology Received Report:** 12/04/91
Contaminants Found at Site: Petroleum products
Media Contaminated: Soil

R77 **G & S SERVICES INC**
Target **225 N BEND BLVD N**
Property **NORTH BEND, WA 98045**

EDR Hist Auto **1021491114**
N/A

Site 2 of 2 in cluster R

Actual: **444 ft.** **EDR Hist Auto**
Focus Map: **12** **Year:** **Name:** **Type:**
1997 G & S SERVICES INC Gasoline Service Stations, NEC
1998 G & S SERVICES INC Gasoline Service Stations, NEC

U78 **FALLS LAUNDRY INC**
Target **125 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

EDR Hist Cleaner **1018825921**
N/A

Site 1 of 2 in cluster U

Actual: **446 ft.** **EDR Hist Cleaner**
Focus Map: **12** **Year:** **Name:** **Type:**
1982 FALLS LAUNDRY INC Coin-Operated Laundries And Cleaning
1983 FALLS LAUNDRY INC Coin-Operated Laundries And Cleaning
1985 FALLS LAUNDRY INC Coin-Operated Laundries And Cleaning
1986 FALLS LAUNDRY INC Coin-Operated Laundries And Cleaning
1987 FALLS LAUNDRY INC Coin-Operated Laundries And Cleaning
1988 FALLS LAUNDRY INC Coin-Operated Laundries And Cleaning
1989 FALLS LAUNDRY INC Coin-Operated Laundries And Cleaning, NEC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FALLS LAUNDRY INC (Continued)

1018825921

1990	FALLS LAUNDRY INC	Coin-Operated Laundries And Cleaning, NEC
1991	FALLS LAUNDRY INC	Coin-Operated Laundries And Cleaning, NEC
1992	FALLS LAUNDRY INC	Coin-Operated Laundries And Cleaning, NEC
1993	FALLS LAUNDRY INC	Coin-Operated Laundries And Cleaning, NEC
1994	FALLS LAUNDRY INC	Coin-Operated Laundries And Cleaning, NEC
1994	MT SI DRYCLEANERS & SHIRT LDY	Garment Pressing And Cleaners' Agents
1995	FALLS LAUNDRY INC	Coin-Operated Laundries And Cleaning, NEC
1995	MT SI DRYCLEANERS & SHIRT LDY	Garment Pressing And Cleaners' Agents
1996	MT SI DRYCLEANERS & SHIRT LDY	Garment Pressing And Cleaners' Agents
1996	FALLS LAUNDRY INC	Coin-Operated Laundries And Cleaning, NEC
1997	MT SI DRYCLEANERS & SHIRT LDY	Garment Pressing And Cleaners' Agents
1997	FALLS LAUNDRY INC	Coin-Operated Laundries And Cleaning, NEC
1998	FALLS LAUNDRY INC	Coin-Operated Laundries And Cleaning, NEC
1998	MT SI DRYCLEANERS	Garment Pressing And Cleaners' Agents
1999	MT SI DRYCLEANERS	Garment Pressing And Cleaners' Agents
1999	FALLS LAUNDRY INC	Coin-Operated Laundries And Cleaning, NEC
2000	FALLS LAUNDRY INC	Coin-Operated Laundries And Cleaning, NEC
2000	MT SI DRYCLEANERS	Garment Pressing And Cleaners' Agents
2001	MOUNTSIDE DRY CLEANERS	Coin-Operated Laundries And Cleaning, NEC
2001	MT SI DRYCLEANERS	Garment Pressing And Cleaners' Agents
2002	MOUNTSIDE DRY CLEANERS	Coin-Operated Laundries And Cleaning, NEC
2003	MOUNTSIDE DRY CLEANERS	Coin-Operated Laundries And Cleaning, NEC
2004	MOUNTSIDE DRY CLEANERS	Coin-Operated Laundries And Cleaning, NEC
2005	MOUNTSIDE DRY CLEANERS	Coin-Operated Laundries And Cleaning, NEC
2006	MOUNTSIDE DRY CLEANERS	Coin-Operated Laundries And Cleaning, NEC
2007	MOUNTSIDE DRY CLEANERS	Coin-Operated Laundries And Cleaning, NEC
2008	MOUNTSIDE DRY CLEANERS	Coin-Operated Laundries And Cleaning, NEC

79
Target
Property

WALLACE WARREN A
FIRST & BALLARD
NORTH BEND, WA 98045

EDR Hist Auto **1020707105**
N/A

EDR Hist Auto

Actual:
446 ft.
Focus Map:
12

Year: Name:

1969	WALLACE WARREN A
1970	WALLACE WARREN A
1971	WALLACE WARREN A
1972	WALLACE WARREN A
1973	WALLACE WARREN A
1974	WALLACE WARREN A
1975	WALLACE WARREN A
1976	WALLACE WARREN A
1977	WALLACE WARREN A

Type:

Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations

80
Target
Property

PLAT OF RIVER GLEN
PICKETT AVE,
NORTH BEND, WA 98045

WA UIC **S121083734**
N/A

UIC:

Actual:
455 ft.
Focus Map:
13

Name: PLAT OF RIVER GLEN
Address: PICKETT AVE,
City,State,Zip: NORTH BEND, WA 98045
Site Number: 33405
Owner Name: River Glen Home Owner's Association
Well Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PLAT OF RIVER GLEN (Continued)

S121083734

EPA Well Type: 5H1 - Stormwater
Latitude: 47.494314
Longitude: 121.76943
Well Name: Trench 2
Registration Type: Municipal Stormwater
Construction Date: 10/12/2016
Construction Type: Infiltration trench with perforated pipe
Depth: 3

V81 VIRGINIA MASON MED CLINIC
Target 248 MAIN AVE S
Property NORTH BEND, WA 98045

WA LUST S104971817
WA ALLSITES N/A
WA CSCSL NFA

Site 1 of 5 in cluster V

Actual:
446 ft.

Focus Map:
12

LUST:
Name: VIRGINIA MASON MED CLINIC
Address: 248 MAIN AVE S
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 78819135
Lust Status Type: LUST - NFA
Cleanup Site ID: 6677
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: VIRGINIA MASON CLINIC NORTH BEND
Response Section: Northwest
Release Date: 02/11/1999
Lust Date: 11/03/1999
Region: Northwest
Lust ID: 5205
UST ID: 490589
Contaminant Name: Petroleum-Other
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.493824 / -121.78789

ALLSITES:

Name: VIRGINIA MASON MED CLINIC
Facility Id: 78819135

Interaction: 64832
Interaction 1: I
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 490589
Date Interaction: 1999-02-11 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.493818329
Longitude: -121.787876221

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIRGINIA MASON MED CLINIC (Continued)

S104971817

Interaction: 64834
Interaction 1: I
Interaction 2: VOLCLNST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: VIRGINIA MASON MED CLINIC
Program ID: 490589
Date Interaction: 1999-09-30 00:00:00
Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.493818329
Longitude: -121.787876221

Interaction: 64833
Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 490589
Date Interaction: 1999-03-25 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.493818329
Longitude: -121.787876221

CSCSL NFA:

Name: VIRGINIA MASON MED CLINIC
Address: 248 MAIN AVE S
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 78819135
CS Id: 6677
NFA Date: 11/03/1999
Alternate Site Names: VIRGINIA MASON CLINIC NORTH BEND
NFA Reason: NFA-Voluntary Cleanup Program Review
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Other
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.493824
Longitude: -121.787891

V82 VIRGINIA MASON CLINIC NORTH BEND
Target 248 MAIN AVE S
Property NORTH BEND, WA 98045

WA UST U003604674
WA ICR N/A

Site 2 of 5 in cluster V

Actual: 446 ft. UST:
Focus Map: 12 Name: VIRGINIA MASON CLINIC NORTH BEND
Address: 248 MAIN AVE S
City: NORTH BEND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIRGINIA MASON CLINIC NORTH BEND (Continued)

U003604674

Zip: 98045
Facility ID: 78819135
Site Id: 490589
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.493824
Decimal Longitude: -121.787891

Tank Name: 1
Tag Number: Not reported
Tank Status: Exempt
Tank Status Date: 12/10/1999
Tank Install Date: 01/01/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ICR:

Date Ecology Received Report: 09/30/99
Contaminants Found at Site: Petroleum products
Media Contaminated: Groundwater, Soil
Waste Management: Tank
Region: North Western
Type of Report Ecology Received: Interim cleanup report
Site Register Issue: 98-19
County Code: 17
Contact: Not reported
Report Title: Not reported

Date Ecology Received Report: 11/03/99
Contaminants Found at Site: Petroleum products
Media Contaminated: Groundwater, Soil
Waste Management: Tank
Region: North Western
Type of Report Ecology Received: Final cleanup report
Site Register Issue: 98-19
County Code: 17
Contact: Not reported
Report Title: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

V83
Target
Property

VIRGINIA MASON MED CLINIC
248 MAIN AVE S
NORTH BEND, WA 98045

WA VCP **S124435995**
N/A

Site 3 of 5 in cluster V

Actual: 446 ft.
Focus Map: 12

VCP:
Name: VIRGINIA MASON MED CLINIC
Address: 248 MAIN AVE S
City,State,Zip: NORTH BEND, WA 98045
edr_fstat: WA
edr_fzip: 98045
edr_fcnty: KING
edr_zip: Not reported
Facility ID: 78819135
VCP Status: Not reported
VCP: NFA
Ecology Status: Not reported
NFA Type: Not reported
Date NFA: 1999-11-03
Rank: Not reported
Cleanup Siteid: 6677
Contaminant Name: Petroleum-Other
Soil: Confirmed Above Cleanup Levels

V84
Target
Property

VIRGINIA MASON MED CLINIC
248 MAIN AVE S
NORTH BEND, WA 98045

FINDS **1007065103**
N/A

Site 4 of 5 in cluster V

Actual: 446 ft.
Focus Map: 12

FINDS:
Registry ID: 110015416717
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015416717

Environmental Interest/Information System:
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

V85
Target
Property

VIRGINIA MASON CLINIC - NORTH BEND
248 MAIN AVE S
NORTH BEND, WA

WA RGA LUST **S115446771**
N/A

Site 5 of 5 in cluster V

Actual: 446 ft.
Focus Map: 12

RGA LUST:
1999 VIRGINIA MASON CLINIC - NORTH BEND 248 MAIN AVE S

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

U86

Target
Property

NORTH BEND BAR & GRILL
NORTH BEND, WA

WA SPILLS

S121367179
N/A

Site 2 of 2 in cluster U

Actual:
447 ft.

Focus Map:
12

SPILLS:

Name: Not reported
Address: NORTH BEND BAR & GRILL
City,State,Zip: NORTH BEND, WA
Facility ID: 96778
Medium: Storm Drain Pipe
Material Desc: EDIBLE/VEGETABLE OIL
Material Qty: 20
Material Units: Not reported
Date Received: Not reported
Contact Name: Not reported
Incident Date: 10/31/2017
Incident Category Type: Non Oil
Incident Category: Other Non-Oil
Latitude: 47.4942
Longitude: -121.7849
Source Type: Facility
Source: Commercial/Industrial Facility
Vessel Facility Name2: Not reported
Recovered Quantity: 20
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: North Bend Bar & Grill

W87

Target
Property

J.O. BORGES PLAZA
248 BENDIGO BLVD S
NORTH BEND, WA 98045

FINDS

1015974739

ECHO

N/A

Site 1 of 3 in cluster W

Actual:
445 ft.

Focus Map:
12

FINDS:

Registry ID: 110054937404
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110054937404

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J.O. BORGEN PLAZA (Continued)

1015974739

ECHO:

Envid: 1015974739
Registry ID: 110054937404
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110054937404>

W88 **LIGHTRECYCLE WASHINGTON ORGANIZATION**
Target **248 BENDIGO BOULEVARD SOUTH**
Property **NORTH BEND, WA 98045**

WA SWRCY **S113230287**
WA ALLSITES **N/A**

Site 2 of 3 in cluster W

Actual:
445 ft.

Focus Map:
12

SWRCY:
Name: LIGHTRECYCLE WASHINGTON ORGANIZATION
Address: 248 BENDIGO BOULEVARD SOUTH
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1322
Service: Bartell Drugs - Bendigo Boulevard S.
Phone: 425-888-1672
Extension: Not reported
Website: <https://www.lightrecycle.org/>
Email: joanne.neugebauer-rex@ecy.wa.gov
Material Category: Household hazardous waste
Material Accepted: Light bulbs - Fluorescents
Contact Name: Joanne Neugebauer-Rex
Type: Commercial
Service Type: Dropoff
Light Recycle Participant: Yes
E-Cycle: No
Hours: Mon-Fri, 8am-10pm, Sat 8-10, Sun 8-10
Comments: Recycle up to 10 fluorescent lights (CFLs only) per day for FREE.

Name: LIGHTRECYCLE WASHINGTON ORGANIZATION
Address: 248 BENDIGO BOULEVARD SOUTH
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1322
Service: Bartell Drugs - Bendigo Boulevard S.
Phone: 425-888-1672
Extension: Not reported
Website: <https://www.lightrecycle.org/>
Email: joanne.neugebauer-rex@ecy.wa.gov
Material Category: Household hazardous waste
Material Accepted: Light bulbs - Fluorescents
Contact Name: Joanne Neugebauer-Rex
Type: Residential
Service Type: Dropoff
Light Recycle Participant: Yes
E-Cycle: No
Hours: Mon-Fri, 8am-10pm, Sat 8-10, Sun 8-10
Comments: Recycle up to 10 fluorescent lights (CFLs only) per day for FREE.

ALLSITES:

Name: JO BORGEN PLAZA
Facility Id: 4754

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

X89
Target
Property

WYRSCH GEORGE A JR
221 1ST AVE E
NORTH BEND, WA 98045

EDR Hist Auto **1021608394**
N/A

Site 1 of 7 in cluster X

Actual:
446 ft.

EDR Hist Auto

Focus Map:
12

Year:	Name:
1969	WYRSCH GEORGE A JR
1970	WYRSCH GEORGE A JR
1971	WYRSCH GEORGE A JR
1972	WYRSCH GEORGE A JR
1973	WYRSCH GEORGE A JR
1974	WYRSCH GEORGE A JR
1975	WYRSCH GEORGE A JR
1976	WYRSCH GEORGE A JR
1977	WYRSCH GEORGE A JR
1978	WYRSCH GEORGE G
1979	WYRSCH GEORGE G

Type:
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations

X90
Target
Property

WYRSCH GEORGE G
225 1ST AVE E
NORTH BEND, WA 98045

EDR Hist Auto **1022013769**
N/A

Site 2 of 7 in cluster X

Actual:
446 ft.

EDR Hist Auto

Focus Map:
12

Year:	Name:
1982	WYRSCH GEORGE G
1983	WYRSCH GEORGE G
1985	WYRSCH GEORGE G
1986	WYRSCH GEORGE G
1987	G & S SERVICES INC

Type:
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations
Gasoline Service Stations

91
Target
Property

NORTH BEND, WA

WA SPILLS **S118402674**
N/A

SPILLS:

Actual: 441 ft.	Name:	Not reported
	Address:	Not reported
	City, State, Zip:	NORTH BEND, WA
Focus Map: 12	Facility ID:	85327
	Medium:	Fresh water
	Material Desc:	LUBE OIL/MOTOR OIL
	Material Qty:	0.02
	Material Units:	Not reported
	Date Received:	Not reported
	Contact Name:	Not reported
	Incident Date:	10/22/2015
	Incident Category Type:	Oil Spill
	Incident Category:	Oil Spill
	Latitude:	47.4939
	Longitude:	-121.7966
	Source Type:	Vehicle
	Source:	Other - Vehicle

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S118402674

Vessel Facility Name2: Not reported
Recovered Quantity: 0.02
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: UPS FREIGHT

X92 **NORTH BEND TEXACO**
Target **225 E NORTH BEND WAY**
Property **NORTH BEND, WA**

WA RGA LUST **S115439780**
N/A

Site 3 of 7 in cluster X

Actual: RGA LUST:
446 ft.

Focus Map:
12

2012	NORTH BEND TEXACO	225 E NORTH BEND WAY
2011	NORTH BEND TEXACO	225 E NORTH BEND WAY
2010	NORTH BEND TEXACO	225 E NORTH BEND WAY
2009	NORTH BEND TEXACO	225 E NORTH BEND WAY
2008	NORTH BEND TEXACO	225 E NORTH BEND WAY
2007	NORTH BEND TEXACO	225 E NORTH BEND WAY
2006	NORTH BEND TEXACO	225 E NORTH BEND WAY
2005	NORTH BEND TEXACO	225 E NORTH BEND WAY
2004	NORTH BEND TEXACO	225 E NORTH BEND WAY
2003	NORTH BEND TEXACO	225 E NORTH BEND WAY
2002	NORTH BEND TEXACO	225 E NORTH BEND WAY
2001	NORTH BEND TEXACO	225 E NORTH BEND WAY
2000	NORTH BEND TEXACO	225 E NORTH BEND WAY
1999	NORTH BEND TEXACO	225 E NORTH BEND WAY
1998	NORTH BEND TEXACO	225 E NORTH BEND WAY
1997	NORTH BEND TEXACO	225 E NORTH BEND WAY

X93 **TEXACO**
Target **225 E. NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

WA ICR **S103504990**
N/A

Site 4 of 7 in cluster X

Actual: ICR:
446 ft.

Focus Map:
12

Date Ecology Received Report:	09/10/98
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Groundwater, Soil
Waste Management:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	98-12
County Code:	17
Contact:	Not reported
Report Title:	Not reported
Date Ecology Received Report:	11/12/96
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Groundwater, Soil
Waste Management:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	94-48
County Code:	17

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEXACO (Continued)

S103504990

Contact: Not reported
Report Title: Not reported

Date Ecology Received Report: 11/12/96
Contaminants Found at Site: Petroleum products
Media Contaminated: Groundwater, Soil
Waste Management: Tank
Region: North Western
Type of Report Ecology Received: Interim cleanup report
Site Register Issue: 94-47
County Code: 17
Contact: Not reported
Report Title: Not reported

X94 WYRSCH GEORGE G
Target 225 EAST NORTH BEND WAY
Property NORTH BEND, WA 98045

EDR Hist Auto 1021134179
N/A

Site 5 of 7 in cluster X

Actual: EDR Hist Auto
446 ft.

Focus Map:
12

Year:	Name:	Type:
1980	WYRSCH GEORGE G	Gasoline Service Stations
1988	NORTH BEND ARCO	Gasoline Service Stations
1989	NORTH BEND ARCO	Gasoline Service Stations, NEC
1990	NORTH BEND ARCO	Gasoline Service Stations, NEC
1991	G & S SERVICES INC	Gasoline Service Stations, NEC
1992	G & S SERVICES INC	Gasoline Service Stations, NEC
1993	G & S SERVICES INC	Gasoline Service Stations, NEC
1994	G & S SERVICES INC	Gasoline Service Stations, NEC
1995	G & S SERVICES INC	Gasoline Service Stations, NEC
1996	G & S SERVICES INC	Gasoline Service Stations, NEC
2000	G & S SERVICES INC	Gasoline Service Stations, NEC
2001	G & S SERVICES INC	Gasoline Service Stations, NEC
2002	G & S SERVICES INC	Gasoline Service Stations, NEC
2003	G & S SERVICES INC	Gasoline Service Stations, NEC
2004	G & S SERVICES INC	Gasoline Service Stations, NEC
2005	G & S SERVICES INC	Gasoline Service Stations, NEC
2006	G & S SERVICES INC	Gasoline Service Stations, NEC
2007	G & S SERVICES INC	Gasoline Service Stations, NEC
2008	G & S SERVICES INC	Gasoline Service Stations, NEC
2009	G & S SERVICES INC	Gasoline Service Stations, NEC
2010	G & S SERVICES INC	Gasoline Service Stations, NEC
2011	G & S SERVICES INC	Gasoline Service Stations, NEC
2012	G & S SERVICES INC	Gasoline Service Stations, NEC
2013	G & S SERVICES INC	Gasoline Service Stations, NEC
2014	G & S SERVICES INC	Gasoline Service Stations, NEC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

X95
Target
Property

NORTH BEND SHELL
225 E NORTH BEND WAY
NORTH BEND, WA 98045

WA HSL
WA CSCSL
WA LUST
WA UST
WA ALLSITES
WA Financial Assurance

U003026316
N/A

Site 6 of 7 in cluster X

Actual:
446 ft.

Focus Map:
12

HSL:

Name: NORTH BEND TEXACO
Address: Not reported
City,State,Zip: NORTH BEND, WA
edr_fstat: WA
edr_fzip: Not reported
edr_fcnty: KING
edr_zip: Not reported
Facility Type: Hazardous Sites List
Facility Status: Cleanup Started
FSID Number: 82682276
Rank: 1
Region: NW
EDR Link ID: 82682276
Region Decode: NORTHWEST REGIONAL OFFICE

CSCSL:

Name: NORTH BEND TEXACO
Address: 225 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 82682276
Region: Northwest
Lat/Long: 47.493980977279 / -121.7845368333
Clean Up Siteid: 10655
Site Status: Cleanup Started
Contaminant Name: Petroleum-Other
Alternate Site Names: NORTH BEND SHELL
Site Rank: 1 - Highest Assessed Risk
Has Institutional Control: Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

LUST:

Name: NORTH BEND TEXACO
Address: 225 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 82682276
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 10655
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: NORTH BEND SHELL
Response Section: Northwest
Release Date: 06/10/1996

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND SHELL (Continued)

U003026316

Lust Date: 02/06/2013
Region: Northwest
Lust ID: 4379
UST ID: 2428
Contaminant Name: Petroleum-Other
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4939809 / -121.78453

UST:

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045
Facility ID: 82682276
Site Id: 2428
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.493980977279
Decimal Longitude: -121.784536833334

Tank Name: 1 DIESEL F
Tag Number: A3875
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1973
Tank Closure Date: Not reported
Capacity Range: 5,000 to 9,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Non-Safe Suction
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND SHELL (Continued)

U003026316

Tank Name: 10 WASTE OIL
Tag Number: A3875
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 04/12/1985
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: 25 Gallons or less
Tank Overfill Prevention: 25 Gallons or less
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Weekly Manual Gauging
Tank SFC Type: Not reported
Pipe Material: Steel
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Other
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Product Removed by Reclaimer
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 2 SUPREME F
Tag Number: A3875
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1973
Tank Closure Date: Not reported
Capacity Range: 2,001 to 4,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Non-Safe Suction
Responsible Unit: Northwest

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND SHELL (Continued)

U003026316

Dispencer/Pump SFC Type: Not reported

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 3 SUPREME F
Tag Number: A3875
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1973
Tank Closure Date: Not reported
Capacity Range: 2,001 to 4,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Non-Safe Suction
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Not reported

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 4 REGULAR
Tag Number: A3875
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1978
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND SHELL (Continued)

U003026316

Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 5 REGULAR
Tag Number: A3875
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1978
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 6 UNLEADED
Tag Number: A3875
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1978
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND SHELL (Continued)

U003026316

Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Not reported

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 7 UNLEADED
Tag Number: A3875
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1978
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Not reported

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 8 DIESEL S
Tag Number: A3875
Tank Status: Removed
Tank Status Date: 08/06/1996

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND SHELL (Continued)

U003026316

Tank Install Date: 04/12/1985
 Tank Closure Date: Not reported
 Capacity Range: 10,000 to 19,999 Gallons
 Tank Permit Expiration Date: Not reported
 Tank Upgrade Date: Not reported
 Tank Spill Prevention: None
 Tank Overfill Prevention: None
 Tank Material: Not reported
 Tank Construction: Single Wall Tank
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: None
 Tank Manifold: Not reported
 Tank Release Detection: Not reported
 Tank SFC Type: Not reported
 Pipe Material: Not reported
 Pipe Construction: Single Wall Pipe
 Pipe Primary Release Detection: Not reported
 Pipe Second Release Detection: Not reported
 Pipe Corrosion Protection: None
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Not reported

 Name: NORTH BEND SHELL
 Address: 225 E NORTH BEND WAY
 City: NORTH BEND
 Zip: 98045

 Tank Name: 9 SUPREME S
 Tag Number: A3875
 Tank Status: Removed
 Tank Status Date: 08/06/1996
 Tank Install Date: 04/12/1985
 Tank Closure Date: Not reported
 Capacity Range: 10,000 to 19,999 Gallons
 Tank Permit Expiration Date: Not reported
 Tank Upgrade Date: Not reported
 Tank Spill Prevention: None
 Tank Overfill Prevention: None
 Tank Material: Not reported
 Tank Construction: Single Wall Tank
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: None
 Tank Manifold: Not reported
 Tank Release Detection: Not reported
 Tank SFC Type: Not reported
 Pipe Material: Not reported
 Pipe Construction: Single Wall Pipe
 Pipe Primary Release Detection: Not reported
 Pipe Second Release Detection: Not reported
 Pipe Corrosion Protection: None
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Not reported

 Name: NORTH BEND SHELL
 Address: 225 E NORTH BEND WAY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND SHELL (Continued)

U003026316

City: NORTH BEND
Zip: 98045

Tank Name: A
Tag Number: A3875
Tank Status: Operational
Tank Status Date: 10/12/1996
Tank Install Date: 06/10/1996
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 12/31/2020
Tank Upgrade Date: 06/10/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Automatic Shutoff (fill pipe)
Tank Material: Steel Clad with Corrosion Resistant Composite
Tank Construction: Double Wall Tank
Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: B
Tag Number: A3875
Tank Status: Operational
Tank Status Date: 10/12/1996
Tank Install Date: 06/10/1996
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 12/31/2020
Tank Upgrade Date: 06/10/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Automatic Shutoff (fill pipe)
Tank Material: Steel Clad with Corrosion Resistant Composite
Tank Construction: Double Wall Tank
Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND SHELL (Continued)

U003026316

Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	Northwest
Dispencer/Pump SFC Type:	Sump
Name:	NORTH BEND SHELL
Address:	225 E NORTH BEND WAY
City:	NORTH BEND
Zip:	98045
Tank Name:	C
Tag Number:	A3875
Tank Status:	Operational
Tank Status Date:	10/12/1996
Tank Install Date:	06/10/1996
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	12/31/2020
Tank Upgrade Date:	06/10/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Steel Clad with Corrosion Resistant Composite
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Sump
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Annual Line Tightness Test (LTT)
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	Northwest
Dispencer/Pump SFC Type:	Sump
Name:	NORTH BEND SHELL
Address:	225 E NORTH BEND WAY
City:	NORTH BEND
Zip:	98045
Tank Name:	D
Tag Number:	A3875
Tank Status:	Operational
Tank Status Date:	10/12/1996
Tank Install Date:	06/10/1996
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	12/31/2020
Tank Upgrade Date:	06/10/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Steel Clad with Corrosion Resistant Composite
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection:	Corrosion Resistant

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND SHELL (Continued)

U003026316

Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

ALLSITES:

Name: NORTH BEND TEXACO
Facility Id: 82682276

Interaction: 66667
Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 2428
Date Interaction: 1973-01-01 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.493975306000003
Longitude: -121.784522055

Interaction: 66668
Interaction 1: A
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 2428
Date Interaction: 1996-06-10 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.493975306000003
Longitude: -121.784522055

WA Financial Assurance 1:

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 2428
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 12/31/2014
Expiration Date: 12/31/2015
Address 2: Not reported
Policy Number: WA641299-5
Effective Date: 12/31/2014
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND SHELL (Continued)

U003026316

Retroactive Date: 01/01/1998
Latitude: 47.493980977
Longitude: -121.78453683

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 2428
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 01/01/2018
Expiration Date: 12/31/2019
Address 2: Not reported
Policy Number: WA-641299-7
Effective Date: 01/01/2018
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0
Retroactive Date: 01/01/1998
Latitude: 47.493980977
Longitude: -121.78453683

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 2428
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 12/31/2018
Expiration Date: 12/31/2019
Address 2: Not reported
Policy Number: WA-642577
Effective Date: 12/31/2018
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0
Retroactive Date: 01/01/1998
Latitude: 47.493980977
Longitude: -121.78453683

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 2428
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 12/31/2015
Expiration Date: 12/31/2016
Address 2: Not reported
Policy Number: WA641299-6
Effective Date: 12/31/2015
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0
Retroactive Date: 01/01/1998
Latitude: 47.493980977
Longitude: -121.78453683

Name: NORTH BEND SHELL
Address: 225 E NORTH BEND WAY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND SHELL (Continued)

U003026316

City,State,Zip:	NORTH BEND, WA 98045
DOE Site ID:	2428
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	12/31/2016
Expiration Date:	12/31/2017
Address 2:	Not reported
Policy Number:	WA641299-7
Effective Date:	12/31/2016
Liability Limit Type:	Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method:	Approved pollution liability insurance
Proof of Responsibility Document Flag:	0
Retroactive Date:	01/01/1998
Latitude:	47.493980977
Longitude:	-121.78453683
Name:	NORTH BEND SHELL
Address:	225 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
DOE Site ID:	2428
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	12/08/2017
Expiration Date:	12/31/2018
Address 2:	Not reported
Policy Number:	WA641299-8
Effective Date:	12/08/2017
Liability Limit Type:	Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method:	Approved pollution liability insurance
Proof of Responsibility Document Flag:	0
Retroactive Date:	01/01/1998
Latitude:	47.493980977
Longitude:	-121.78453683

X96 **NORTH BEND TEXACO**
Target **225 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

FINDS **1007064592**
 N/A

Site 7 of 7 in cluster X

Actual: **FINDS:**
446 ft. Registry ID: 110015411543
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015411543
12

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID	MAP FINDINGS			
Direction				
Distance				
Elevation	Site	Database(s)	EDR ID Number	EPA ID Number
W97	NORTH BEND CHEVRON	EDR Hist Auto	1021908861	
Target	302 N BEND BLVD N		N/A	
Property	NORTH BEND, WA 98045			
Site 3 of 3 in cluster W				
Actual:	EDR Hist Auto			
444 ft.				
Focus Map:	Year:	Name:	Type:	
12	1995	NORTH BEND CHEVRON	Gasoline Service Stations	
	1996	NORTH BEND CHEVRON	Gasoline Service Stations	
	1997	NORTH BEND CHEVRON	Gasoline Service Stations	
98	METRO TRANSIT	WA SPILLS	S109894872	
Target	MAIN AVE. SO. & EAST PARK ST.		N/A	
Property	NORTH BEND, WA			
	SPILLS:			
	Name:	METRO TRANSIT		
Actual:	Address:	MAIN AVE. SO. & EAST PARK ST.		
446 ft.	City,State,Zip:	NORTH BEND, WA		
Focus Map:	Facility ID:	611561		
12	Medium:	SURFACE WATER-FRESH		
	Material Desc:	PETROLEUM - HYDRAULIC OIL		
	Material Qty:	2		
	Material Units:	GALLON		
	Date Received:	03/16/2009		
	Contact Name:	Not reported		
	Incident Date:	Not reported		
	Incident Category Type:	Not reported		
	Incident Category:	Not reported		
	Latitude:	Not reported		
	Longitude:	Not reported		
	Source Type:	Not reported		
	Source:	Not reported		
	Vessel Facility Name2:	Not reported		
	Recovered Quantity:	Not reported		
	Resp Party Contact:	Not reported		
	Cause:	Not reported		
	Cause Type:	Not reported		
	Resp Party Name:	Not reported		
Y99	BUSY BEE STATION & CAFE	WA UST	1007070716	
Target	352 E NORTH BEND WAY	WA ALLSITES	N/A	
Property	NORTH BEND, WA 98045	FINDS		
Site 1 of 3 in cluster Y				
Actual:	UST:			
449 ft.				
Focus Map:	Name:	BUSY BEE STATION AND CAFE		
12	Address:	352 E NORTH BEND WAY		
	City:	NORTH BEND		
	Zip:	98045		
	Facility ID:	43918675		
	Site Id:	101464		
	UBI:	Not reported		
	Phone Number:	Not reported		
	Decimal Latitude:	47.492434		

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BUSY BEE STATION & CAFE (Continued)

1007070716

Decimal Longitude: -121.782801

Tank Name: 1-5000
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: BUSY BEE STATION AND CAFE
Address: 352 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 2-3000
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BUSY BEE STATION & CAFE (Continued)

1007070716

Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Not reported

Name: BUSY BEE STATION AND CAFE
Address: 352 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 3-3000
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Not reported

Name: BUSY BEE STATION AND CAFE
Address: 352 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 4-1000
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BUSY BEE STATION & CAFE (Continued)

1007070716

Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: BUSY BEE STATION AND CAFE
Address: 352 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 5-500
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: BUSY BEE STATION & CAFE
Facility Id: 43918675

Interaction: 44776
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 101464
Date Interaction: 1991-12-05 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.492428328000003

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BUSY BEE STATION & CAFE (Continued)

1007070716

Longitude: -121.782786222

FINDS:

Registry ID: 110015473281

Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015473281

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**Y100
Target
Property**

**DINGFORD CREEK TRAIL ROAD
NEAR DINGFORD CREEK TRAIL ROAD
NORTH BEND, WA 98045**

**US BROWNFIELDS
FINDS**

**1023619486
N/A**

Site 2 of 3 in cluster Y

**Actual:
449 ft.**

**Focus Map:
12**

US BROWNFIELDS:

Name: DINGFORD CREEK TRAIL ROAD
Address: NEAR DINGFORD CREEK TRAIL ROAD
City,State,Zip: NORTH BEND, WA 98045
Recipient Name: Public Health Seattle & King County
Grant Type: Assessment
Property Number: 2224106666
Parcel size: 1
Latitude: 47.49327
Longitude: -121.782669
HCM Label: Not reported
Map Scale: Not reported
Point of Reference: Not reported
Highlights: Not reported
Datum: Not reported
Acres Property ID: 16059
IC Data Access: Not reported
Start Date: Not reported
Redev Completion Date: Not reported
Completed Date: Not reported
Acres Cleaned Up: Not reported
Cleanup Funding: Not reported
Cleanup Funding Source: Not reported
Assessment Funding: Not reported
Assessment Funding Source: Not reported
Redevelopment Funding: Not reported
Redev. Funding Source: Not reported
Redev. Funding Entity Name: Not reported
Redevelopment Start Date: Not reported
Assessment Funding Entity: Not reported
Cleanup Funding Entity: Not reported
Grant Type: N/A
Accomplishment Type: Not reported
Accomplishment Count: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DINGFORD CREEK TRAIL ROAD (Continued)

1023619486

Cooperative Agreement Number:	97093401
Start Date:	Not reported
Ownership Entity:	Not reported
Completion Date:	Not reported
Current Owner:	Jim Franzel, USFS
Did Owner Change:	Not reported
Cleanup Required:	Not reported
Video Available:	Not reported
Photo Available:	Not reported
Institutional Controls Required:	Not reported
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported
IC Cat. Gov. Controls:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported
IC in place:	U
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Not reported
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DINGFORD CREEK TRAIL ROAD (Continued)

1023619486

Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
Nickel Cleaned Up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	Not reported
Below Poverty Number:	244
Below Poverty Percent:	12.7%
Meidan Income:	7287
Meidan Income Number:	499
Meidan Income Percent:	26.0%
Vacant Housing Number:	121
Vacant Housing Percent:	11.4%
Unemployed Number:	58
Unemployed Percent:	3.0%

FINDS:

Registry ID: 110060673739
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110060673739

Environmental Interest/Information System:

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES)
is an federal online database for Brownfields Grantees to

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DINGFORD CREEK TRAIL ROAD (Continued)

1023619486

electronically submit data directly to EPA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Z101
Target
Property

KING CNTY DEEP CREEK BRG NO 3644
FURY LAKE RD 7.5 MI N OF N FORK RD SE
NORTH BEND, WA 98045

WA ALLSITES **S109555899**
N/A

Site 1 of 2 in cluster Z

Actual:
452 ft.
Focus Map:
12

ALLSITES:
Name: KING CNTY DEEP CREEK BRG NO 3644
Facility Id: 72714486
Interaction: 60917
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAR000000299
Date Interaction: 1995-02-24 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.493144328
Longitude: -121.77939522299999

102
Target
Property

KING COUNTY SECURE MEDICINE RETURN
460 E NORTH BEND WAY
NORTH BEND, WA 98045

WA SWRCY **S111416044**
N/A

Actual:
451 ft.
Focus Map:
12

SWRCY:
Name: KING COUNTY SECURE MEDICINE RETURN
Address: 460 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1625
Service: QFC Pharmacy #829
Phone: 425-888-2357
Extension: Not reported
Website: <https://kingcountysecuremedicinereturn.org/north-bend/>
Email: Not reported
Material Category: Household hazardous waste
Material Accepted: Medications
Contact Name: Not reported
Type: Residential
Service Type: Dropoff
Light Recycle Participant: No
E-Cycle: No
Hours: Call for hours
Comments: Safely dispose of the medicines you no longer need

Name: NORTHWEST CENTER
Address: 460 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1627
Service: Northwest Center Truck at QFC North Bend

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING COUNTY SECURE MEDICINE RETURN (Continued)

S111416044

Phone: 1-800-992-2060
 Extension: Not reported
 Website: <http://www.nwcenter.org>
 Email: Not reported
 Material Category: Electronics
 Material Accepted: Computers & laptops
 Contact Name: Not reported
 Type: Residential
 Service Type: Dropoff
 Light Recycle Participant: No
 E-Cycle: Yes
 Hours: Daily 10am-4pm
 Comments: Maximum weight per TV - 75 lbs.

Name: NORTHWEST CENTER
 Address: 460 E NORTH BEND WAY
 City,State,Zip: NORTH BEND, WA 98045
 Facility ID: 1627
 Service: Northwest Center Truck at QFC North Bend
 Phone: 1-800-992-2060
 Extension: Not reported
 Website: <http://www.nwcenter.org>
 Email: Not reported
 Material Category: Electronics
 Material Accepted: Tablets
 Contact Name: Not reported
 Type: Residential
 Service Type: Dropoff
 Light Recycle Participant: No
 E-Cycle: Yes
 Hours: Daily 10am-4pm
 Comments: Maximum weight per TV - 75 lbs.

Name: NORTHWEST CENTER
 Address: 460 E NORTH BEND WAY
 City,State,Zip: NORTH BEND, WA 98045
 Facility ID: 1627
 Service: Northwest Center Truck at QFC North Bend
 Phone: 1-800-992-2060
 Extension: Not reported
 Website: <http://www.nwcenter.org>
 Email: Not reported
 Material Category: Electronics
 Material Accepted: Televisions (TVs)
 Contact Name: Not reported
 Type: Residential
 Service Type: Dropoff
 Light Recycle Participant: No
 E-Cycle: Yes
 Hours: Daily 10am-4pm
 Comments: Maximum weight per TV - 75 lbs.

Name: NORTHWEST CENTER
 Address: 460 E NORTH BEND WAY
 City,State,Zip: NORTH BEND, WA 98045
 Facility ID: 1627
 Service: Northwest Center Truck at QFC North Bend

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING COUNTY SECURE MEDICINE RETURN (Continued)

S111416044

Phone: 1-800-992-2060
Extension: Not reported
Website: <http://www.nwcenter.org>
Email: Not reported
Material Category: Electronics
Material Accepted: Monitors
Contact Name: Not reported
Type: Residential
Service Type: Dropoff
Light Recycle Participant: No
E-Cycle: Yes
Hours: Daily 10am-4pm
Comments: Maximum weight per TV - 75 lbs.

Name: NORTHWEST CENTER
Address: 460 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1627
Service: Northwest Center Truck at QFC North Bend
Phone: 1-800-992-2060
Extension: Not reported
Website: <http://www.nwcenter.org>
Email: Not reported
Material Category: Electronics
Material Accepted: Portable DVD players
Contact Name: Not reported
Type: Residential
Service Type: Dropoff
Light Recycle Participant: No
E-Cycle: Yes
Hours: Daily 10am-4pm
Comments: Maximum weight per TV - 75 lbs.

Name: NORTHWEST CENTER
Address: 460 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1627
Service: Northwest Center Truck at QFC North Bend
Phone: 1-800-992-2060
Extension: Not reported
Website: <http://www.nwcenter.org>
Email: Not reported
Material Category: Electronics
Material Accepted: Computers & laptops
Contact Name: Not reported
Type: Commercial
Service Type: Dropoff
Light Recycle Participant: No
E-Cycle: Yes
Hours: Daily 10am-4pm
Comments: Small businesses with less than 50 employees can use the E-Cycle WA program. Maximum weight per TV - 75 lbs.

Name: NORTHWEST CENTER
Address: 460 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1627

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING COUNTY SECURE MEDICINE RETURN (Continued)

S111416044

Service: Northwest Center Truck at QFC North Bend
Phone: 1-800-992-2060
Extension: Not reported
Website: <http://www.nwcenter.org>
Email: Not reported
Material Category: Electronics
Material Accepted: Tablets
Contact Name: Not reported
Type: Commercial
Service Type: Dropoff
Light Recycle Participant: No
E-Cycle: Yes
Hours: Daily 10am-4pm
Comments: Small businesses with less than 50 employees can use the E-Cycle WA program. Maximum weight per TV - 75 lbs.

Name: NORTHWEST CENTER
Address: 460 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1627
Service: Northwest Center Truck at QFC North Bend
Phone: 1-800-992-2060
Extension: Not reported
Website: <http://www.nwcenter.org>
Email: Not reported
Material Category: Electronics
Material Accepted: Televisions (TVs)
Contact Name: Not reported
Type: Commercial
Service Type: Dropoff
Light Recycle Participant: No
E-Cycle: Yes
Hours: Daily 10am-4pm
Comments: Small businesses with less than 50 employees can use the E-Cycle WA program. Maximum weight per TV - 75 lbs.

Name: NORTHWEST CENTER
Address: 460 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1627
Service: Northwest Center Truck at QFC North Bend
Phone: 1-800-992-2060
Extension: Not reported
Website: <http://www.nwcenter.org>
Email: Not reported
Material Category: Electronics
Material Accepted: Monitors
Contact Name: Not reported
Type: Commercial
Service Type: Dropoff
Light Recycle Participant: No
E-Cycle: Yes
Hours: Daily 10am-4pm
Comments: Small businesses with less than 50 employees can use the E-Cycle WA program. Maximum weight per TV - 75 lbs.

Name: NORTHWEST CENTER

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING COUNTY SECURE MEDICINE RETURN (Continued)

S111416044

Address: 460 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1627
Service: Northwest Center Truck at QFC North Bend
Phone: 1-800-992-2060
Extension: Not reported
Website: <http://www.nwcenter.org>
Email: Not reported
Material Category: Electronics
Material Accepted: Portable DVD players
Contact Name: Not reported
Type: Commercial
Service Type: Dropoff
Light Recycle Participant: No
E-Cycle: Yes
Hours: Daily 10am-4pm
Comments: Small businesses with less than 50 employees can use the E-Cycle WA program. Maximum weight per TV - 75 lbs.

Z103 KING CNTY DEEP CREEK BRG NO 3644
Target FURY LAKE RD 7.5 MI N OF N FOR
Property NORTH BEND, WA 98045

FINDS 1016262416
ECHO N/A

Site 2 of 2 in cluster Z

Actual: FINDS:
452 ft. Registry ID: 110008227258
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110008227258
12

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1016262416
Registry ID: 110008227258
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110008227258>

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AA104 **RIVER GLEN**
Target **814 NE 3RD STREET**
Property **NORTH BEND, WA 98045**

ECHO **1018108662**
N/A

Site 1 of 3 in cluster AA

Actual: **ECHO:**
457 ft. Envid: 1018108662
Focus Map: Registry ID: 110064389638
13 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110064389638>

AA105 **RIVER GLEN**
Target **814 NE 3RD STREET**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S117804842**
N/A

Site 2 of 3 in cluster AA

Actual: **ALLSITES:**
457 ft. Name: RIVER GLEN
Focus Map: Facility Id: 20499
13
Interaction: 113062
Interaction 1: A
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: River Glen
Program ID: WAR303008
Date Interaction: 2015-04-30 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.493892563000003
Longitude: -121.77188725400001

AA106 **RIVER GLEN**
Target **814 NE 3RD STREET**
Property **NORTH BEND, WA 98045**

FINDS **1017812670**
N/A

Site 3 of 3 in cluster AA

Actual: **FINDS:**
457 ft. Registry ID: 110064389638
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110064389638
13

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIVER GLEN (Continued)

1017812670

discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Y107 UNOCAL SERVICE STN 2237
Target 330 & 354 E NORTH BEND WAY
Property NORTH BEND, WA 98045

WA CSCSL 1007065616
WA LUST N/A
WA UST
WA ALLSITES
FINDS

Site 3 of 3 in cluster Y

Actual:
450 ft.

Focus Map:
12

CSCSL:

Name: UNOCAL 2237
Address: 330 & 354 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 75685473
Region: Northwest
Lat/Long: 47.493030187630 / -121.7819876857
Clean Up Siteid: 6630
Site Status: Cleanup Started
Contaminant Name: Benzene
Alternate Site Names: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
Site Rank: Not reported
Has Institutional Control:Not reported
Past VCP: True
Current VCP: Not reported
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: UNOCAL 2237
Address: 330 & 354 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 75685473
Region: Northwest
Lat/Long: 47.493030187630 / -121.7819876857
Clean Up Siteid: 6630
Site Status: Cleanup Started
Contaminant Name: Lead
Alternate Site Names: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
Site Rank: Not reported
Has Institutional Control:Not reported
Past VCP: True
Current VCP: Not reported
Ground Water: Not reported
Surface Water: Not reported
Soil: Below Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: UNOCAL 2237
Address: 330 & 354 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL SERVICE STN 2237 (Continued)

1007065616

Facility ID: 75685473
Region: Northwest
Lat/Long: 47.493030187630 / -121.7819876857
Clean Up Siteid: 6630
Site Status: Cleanup Started
Contaminant Name: Methyl tertiary-butyl ether
Alternate Site Names: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
Site Rank: Not reported
Has Institutional Control: Not reported
Past VCP: True
Current VCP: Not reported
Ground Water: Not reported
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: UNOCAL 2237
Address: 330 & 354 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 75685473
Region: Northwest
Lat/Long: 47.493030187630 / -121.7819876857
Clean Up Siteid: 6630
Site Status: Cleanup Started
Contaminant Name: Petroleum-Diesel
Alternate Site Names: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
Site Rank: Not reported
Has Institutional Control: Not reported
Past VCP: True
Current VCP: Not reported
Ground Water: Below Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: UNOCAL 2237
Address: 330 & 354 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 75685473
Region: Northwest
Lat/Long: 47.493030187630 / -121.7819876857
Clean Up Siteid: 6630
Site Status: Cleanup Started
Contaminant Name: Petroleum-Gasoline
Alternate Site Names: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
Site Rank: Not reported
Has Institutional Control: Not reported
Past VCP: True
Current VCP: Not reported
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL SERVICE STN 2237 (Continued)

1007065616

Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: UNOCAL 2237
Address: 330 & 354 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 75685473
Region: Northwest
Lat/Long: 47.493030187630 / -121.7819876857
Clean Up Siteid: 6630
Site Status: Cleanup Started
Contaminant Name: Petroleum-Other
Alternate Site Names: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
Site Rank: Not reported
Has Institutional Control:Not reported
Past VCP: True
Current VCP: Not reported
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

LUST:

Name: UNOCAL 2237
Address: 330 & 354 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 75685473
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 6630
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
Response Section: Northwest
Release Date: 11/12/1999
Lust Date: 12/04/2001
Region: Northwest
Lust ID: 5418
UST ID: 518296
Contaminant Name: Petroleum-Diesel
Ground Water: Below Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4930301 / -121.78198

Name: UNOCAL 2237
Address: 330 & 354 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 75685473

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL SERVICE STN 2237 (Continued)

1007065616

Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 6630
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
Response Section: Northwest
Release Date: 11/12/1999
Lust Date: 12/04/2001
Region: Northwest
Lust ID: 5418
UST ID: 518296
Contaminant Name: Petroleum-Gasoline
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4930301 / -121.78198

Name: UNOCAL 2237
Address: 330 & 354 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 75685473
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 6630
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
Response Section: Northwest
Release Date: 11/12/1999
Lust Date: 12/04/2001
Region: Northwest
Lust ID: 5418
UST ID: 518296
Contaminant Name: Methyl tertiary-butyl ether
Ground Water: Not reported
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4930301 / -121.78198

Name: UNOCAL 2237
Address: 330 & 354 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 75685473
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 6630
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
Response Section: Northwest
Release Date: 11/12/1999
Lust Date: 12/04/2001
Region: Northwest

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL SERVICE STN 2237 (Continued)

1007065616

Lust ID: 5418
 UST ID: 518296
 Contaminant Name: Benzene
 Ground Water: Confirmed Above Cleanup Levels
 Surface Water: Not reported
 Soil: Confirmed Above Cleanup Levels
 Sediment: Not reported
 Air: Not reported
 Bedrock: Not reported
 Lat/Long: 47.4930301 / -121.78198

Name: UNOCAL 2237
 Address: 330 & 354 E NORTH BEND WAY
 City,State,Zip: NORTH BEND, WA 98045
 Facility ID: 75685473
 Lust Status Type: LUST - Cleanup Started
 Cleanup Site ID: 6630
 Cleanup Unit Type: Upland
 Process Type: Independent Action
 Cleanup Unit Name: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
 Response Section: Northwest
 Release Date: 11/12/1999
 Lust Date: 12/04/2001
 Region: Northwest
 Lust ID: 5418
 UST ID: 518296
 Contaminant Name: Lead
 Ground Water: Not reported
 Surface Water: Not reported
 Soil: Below Cleanup Levels
 Sediment: Not reported
 Air: Not reported
 Bedrock: Not reported
 Lat/Long: 47.4930301 / -121.78198

Name: UNOCAL 2237
 Address: 330 & 354 E NORTH BEND WAY
 City,State,Zip: NORTH BEND, WA 98045
 Facility ID: 75685473
 Lust Status Type: LUST - Cleanup Started
 Cleanup Site ID: 6630
 Cleanup Unit Type: Upland
 Process Type: Independent Action
 Cleanup Unit Name: NOBLE PROPERTY,UNOCAL SERVICE STN 2237
 Response Section: Northwest
 Release Date: 11/12/1999
 Lust Date: 12/04/2001
 Region: Northwest
 Lust ID: 5418
 UST ID: 518296
 Contaminant Name: Petroleum-Other
 Ground Water: Confirmed Above Cleanup Levels
 Surface Water: Not reported
 Soil: Confirmed Above Cleanup Levels
 Sediment: Not reported
 Air: Not reported
 Bedrock: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL SERVICE STN 2237 (Continued)

1007065616

Lat/Long: 47.4930301 / -121.78198

UST:

Name: UNOCAL 2237
Address: 330 & 354 E NORTH BEND WY
City: NORTH BEND
Zip: 98045
Facility ID: 75685473
Site Id: 518296
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.4930301876309
Decimal Longitude: -121.781987685796

Tank Name: 1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 07/05/2001
Tank Install Date: 01/01/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: UNOCAL SERVICE STN 2237
Facility Id: 75685473

Interaction: 62990
Interaction 1: I
Interaction 2: VOLCLNST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: UNOCAL SERVICE STN 2237
Program ID: NW0422
Date Interaction: 2000-03-13 00:00:00
Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.493024515999998
Longitude: -121.781972908

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL SERVICE STN 2237 (Continued)

1007065616

Interaction: 79519
Interaction 1: A
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: UNOCAL SERVICE STN 2237
Program ID: 518296
Date Interaction: 2007-08-07 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.493024515999998
Longitude: -121.781972908

Interaction: 98566
Interaction 1: I
Interaction 2: VOLCLNST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: UNOCAL SERVICE STN 2237
Program ID: NW2551
Date Interaction: 2011-11-18 00:00:00
Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.493024515999998
Longitude: -121.781972908

Interaction: 62989
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 518296
Date Interaction: 1999-12-20 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.493024515999998
Longitude: -121.781972908

Interaction: 79354
Interaction 1: I
Interaction 2: VOLCLNST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: UNOCAL SERVICE STN 2237
Program ID: nw2199
Date Interaction: 2009-08-26 00:00:00
Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.493024515999998
Longitude: -121.781972908

Interaction: 79392
Interaction 1: I
Interaction 2: VOLCLNST
Ecology Program: TOXICS
Program Data: ISIS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL SERVICE STN 2237 (Continued)

1007065616

Facility Alt.: UNOCAL SERVICE STN 2237
Program ID: nw2199
Date Interaction: 2009-09-01 00:00:00
Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.493024515999998
Longitude: -121.781972908

Interaction: 62988
Interaction 1: I
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 518296
Date Interaction: 1999-11-12 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.493024515999998
Longitude: -121.781972908

FINDS:

Registry ID: 110015421881
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015421881

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AB108
Target
Property

312 E. PARK ST.
NORTHBEND, WA 98045

ERNS 2013063259
N/A

Site 1 of 2 in cluster AB

Actual:
448 ft.

Focus Map:
12

[Click this hyperlink](#) while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AB109 **PSE**
Target **312 E PARK ST**
Property **NORTH BEND, WA**

WA SPILLS **S114472485**
 N/A

Site 2 of 2 in cluster AB

Actual: **SPILLS:**
448 ft. Name: PSE
Focus Map: Address: 312 E PARK ST
12 City,State,Zip: NORTH BEND, WA
 Facility ID: 644691
 Medium: IMPERMEABLE CONTAINMENT
 Material Desc: PETROLEUM - MINERAL OIL
 Material Qty: Not reported
 Material Units: GALLON
 Date Received: 10/17/2013
 Contact Name: Not reported
 Incident Date: Not reported
 Incident Category Type: Not reported
 Incident Category: Not reported
 Latitude: Not reported
 Longitude: Not reported
 Source Type: Not reported
 Source: Not reported
 Vessel Facility Name2: Not reported
 Recovered Quantity: Not reported
 Resp Party Contact: Not reported
 Cause: Not reported
 Cause Type: Not reported
 Resp Party Name: Not reported

AC110 **NORTH BEND DRY CLEANERS**
Target **400 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S110123744**
 N/A

Site 1 of 4 in cluster AC

Actual: **ALLSITES:**
450 ft. Name: NORTH BEND DRY CLEANERS
Focus Map: Facility Id: 19591
12
 Interaction: 89479
 Interaction 1: I
 Interaction 2: LSC
 Ecology Program: HAZWASTE
 Program Data: LSC
 Facility Alt.: North Bend Dry Cleaners
 Program ID: Not reported
 Date Interaction: 2009-03-03 00:00:00
 Date Interaction 3: Local Source Cntrl 7/09-3
 Latitude: 47.492942329000002
 Longitude: -121.781531223

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AC111 **NORTH BEND CLEANERS**
Target **400 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

EDR Hist Cleaner **1020050630**
 N/A

Site 2 of 4 in cluster AC

Actual: EDR Hist Cleaner
450 ft.

Focus Map:	Year:	Name:	Type:
12	2003	NORTH BEND CLEANERS	Drycleaning Plants, Except Rugs, NEC
	2004	NORTH BEND CLEANERS	Drycleaning Plants, Except Rugs, NEC
	2005	NORTH BEND CLEANERS	Drycleaning Plants, Except Rugs, NEC
	2006	NORTH BEND CLEANERS	Drycleaning Plants, Except Rugs, NEC
	2007	NORTH BEND CLEANERS	Drycleaning Plants, Except Rugs, NEC
	2008	NORTH BEND CLEANERS	Drycleaning Plants, Except Rugs, NEC
	2009	NORTH BEND CLEANERS	Drycleaning Plants, Except Rugs, NEC

AC112 **NORTH BEND DRY CLEANERS**
Target **400 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

FINDS **1012276059**
 N/A

Site 3 of 4 in cluster AC

Actual: FINDS:
450 ft. Registry ID: 110040317485

Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110040317485
12

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AD113 **PLAT OF RIVER GLEN**
Target **PICKETT AVE,**
Property **NORTH BEND, WA 98045**

WA UIC **S121083731**
 N/A

Site 1 of 2 in cluster AD

Actual: UIC:
459 ft.

Focus Map: Name: PLAT OF RIVER GLEN
13 Address: PICKETT AVE,
 City,State,Zip: NORTH BEND, WA 98045
 Site Number: 33405
 Owner Name: River Glen Home Owner's Association
 Well Status: Active
 EPA Well Type: 5H1 - Stormwater
 Latitude: 47.49286
 Longitude: 121.76938
 Well Name: Trench 1A
 Registration Type: Municipal Stormwater
 Construction Date: 10/12/2016
 Construction Type: Infiltration trench with perforated pipe
 Depth: 3

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

114
Target
Property

NORTH BEND STP
400 NORTH BEND BLVD
NORTH BEND, WA 98045

WA LUST
WA ALLSITES
WA CSCSL NFA
RCRA NonGen / NLR
WA NPDES

1000992993
WAR000000166

Actual:
454 ft.

Focus Map:
12

LUST:

Name: NORTH BEND STP UST
Address: 400 NORTH BEND BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 38121329
Lust Status Type: LUST - NFA
Cleanup Site ID: 8964
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: NORTH BEND CITY OF,NORTH BEND CITY UST 10583,North Bend STP
Response Section: Northwest
Release Date: 12/21/1998
Lust Date: 10/03/2011
Region: Northwest
Lust ID: 5216
UST ID: 10583
Contaminant Name: Petroleum-Other
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.499021 / -121.78533

Name: NORTH BEND STP UST
Address: 400 NORTH BEND BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 38121329
Lust Status Type: LUST - NFA
Cleanup Site ID: 8964
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: NORTH BEND CITY OF,NORTH BEND CITY UST 10583,North Bend STP
Response Section: Northwest
Release Date: 12/21/1998
Lust Date: 10/03/2011
Region: Northwest
Lust ID: 5216
UST ID: 10583
Contaminant Name: Petroleum-Diesel
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.499021 / -121.78533

ALLSITES:

Name: NORTH BEND STP
Facility Id: 38121329

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND STP (Continued)

1000992993

Interaction:	41686
Interaction 1:	I
Interaction 2:	LUST
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	Not reported
Program ID:	10583
Date Interaction:	1998-12-21 00:00:00
Date Interaction 3:	LUST Facility
Latitude:	47.499014606999999
Longitude:	-121.785319695
Interaction:	41689
Interaction 1:	A
Interaction 2:	ENFORFNL
Ecology Program:	SOLIDWASTE
Program Data:	DMS
Facility Alt.:	Not reported
Program ID:	Not reported
Date Interaction:	2004-05-13 00:00:00
Date Interaction 3:	Enforcement Final
Latitude:	47.499014606999999
Longitude:	-121.785319695
Interaction:	82603
Interaction 1:	A
Interaction 2:	MUNINPDESIP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	NORTH BEND STP
Program ID:	WA0029351
Date Interaction:	1982-09-20 00:00:00
Date Interaction 3:	Municipal NPDES IP
Latitude:	47.499014606999999
Longitude:	-121.785319695
Interaction:	41685
Interaction 1:	I
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAR000000166
Date Interaction:	1995-02-13 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.499014606999999
Longitude:	-121.785319695
Interaction:	41688
Interaction 1:	I
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND STP (Continued)

1000992993

Facility Alt.: Not reported
Program ID: 10583
Date Interaction: 2000-02-29 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.499014606999999
Longitude: -121.785319695

CSCSL NFA:

Name: NORTH BEND STP UST
Address: 400 NORTH BEND BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 38121329
CS Id: 8964
NFA Date: 10/03/2011
Alternate Site Names: NORTH BEND CITY OF,NORTH BEND CITY UST 10583,North Bend STP
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Diesel
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.499021
Longitude: -121.78533

Name: NORTH BEND STP UST
Address: 400 NORTH BEND BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 38121329
CS Id: 8964
NFA Date: 10/03/2011
Alternate Site Names: NORTH BEND CITY OF,NORTH BEND CITY UST 10583,North Bend STP
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Other
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.499021
Longitude: -121.78533

RCRA NonGen / NLR:

Date form received by agency: 2004-01-30 00:00:00.0
Facility name: NORTH BEND STP
Facility address: 400 NORTH BEND BLVD
NORTH BEND, WA 98045
EPA ID: WAR000000166
Mailing address: PO BOX 896

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND STP (Continued)

1000992993

Contact: NORTH BEND, WA 98045
 Contact address: PAT OSBORNE
 PO BOX 896
 NORTH BEND, WA 98045
 Contact country: US
 Contact telephone: 425-888-0282
 Contact email: Not reported
 EPA Region: 10
 Land type: Municipal
 Classification: Non-Generator
 Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: CITY OF NORTH BEND
 Owner/operator address: PO BOX 896
 NORTH BEND, WA 98045
 Owner/operator country: US
 Owner/operator telephone: 425-888-0282
 Owner/operator email: Not reported
 Owner/operator fax: Not reported
 Owner/operator extension: Not reported
 Legal status: Private
 Owner/Operator Type: Owner
 Owner/Op start date: Not reported
 Owner/Op end date: Not reported

Owner/operator name: NORTH BEND CITY
 Owner/operator address: PO BOX 898
 NORTH BEND, WA 98045
 Owner/operator country: US
 Owner/operator telephone: 000-000-0000
 Owner/operator email: Not reported
 Owner/operator fax: Not reported
 Owner/operator extension: Not reported
 Legal status: Private
 Owner/Operator Type: Operator
 Owner/Op start date: Not reported
 Owner/Op end date: Not reported

Owner/operator name: NORTH BEND CITY
 Owner/operator address: 1155 E NORTH BEND WAY
 NORTH BEND, WA 98045
 Owner/operator country: US
 Owner/operator telephone: 000-000-0000
 Owner/operator email: Not reported
 Owner/operator fax: Not reported
 Owner/operator extension: Not reported
 Legal status: Private
 Owner/Operator Type: Owner
 Owner/Op start date: 1996-05-03 00:00:00.
 Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
 Mixed waste (haz. and radioactive): No
 Recycler of hazardous waste: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND STP (Continued)

1000992993

Transporter of hazardous waste: No
 Treater, storer or disposer of HW: No
 Underground injection activity: No
 On-site burner exemption: No
 Furnace exemption: No
 Used oil fuel burner: No
 Used oil processor: No
 User oil refiner: No
 Used oil fuel marketer to burner: No
 Used oil Specification marketer: No
 Used oil transfer facility: No
 Used oil transporter: No

Historical Generators:

Date form received by agency: 2004-01-29 00:00:00.0
 Site name: NORTH BEND STP
 Classification: Not a generator, verified

Date form received by agency: 2004-01-29 00:00:00.0
 Site name: NORTH BEND STP
 Classification: Not a generator, verified

Date form received by agency: 2003-01-23 00:00:00.0
 Site name: NORTH BEND STP
 Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2003-01-23 00:00:00.0
 Site name: NORTH BEND STP
 Classification: Not a generator, verified

Date form received by agency: 2002-02-13 00:00:00.0
 Site name: NORTH BEND STP
 Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2000-02-25 00:00:00.0
 Site name: NORTH BEND STP
 Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 1999-01-13 00:00:00.0
 Site name: NORTH BEND STP
 Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 1997-12-31 00:00:00.0
 Site name: NORTH BEND STP
 Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 1997-06-30 00:00:00.0
 Site name: NORTH BEND STP
 Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 1997-06-30 00:00:00.0
 Site name: NORTH BEND STP
 Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 1993-12-31 00:00:00.0
 Site name: NORTH BEND STP
 Classification: Small Quantity Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND STP (Continued)

1000992993

Violation Status: No violations found

NPDES:

Name: NORTH BEND STP

Address: 400 NORTH BEND BLVD

City,State,Zip: NORTH BEND, WA 98045

Facility Status: Active

Facility Type: Municipal NPDES IP

Admin Region: Northwest

Date Issued: 12/21/2018

Latitude: 47.49902099

Longitude: -121.78533

Permit ID: WA0029351

Permit Version: 6

Permit Status: Active

Permit SubStatus: Issued

Ecology Contact: Laura Fricke

WRIA: Snohomish

Permit Expiration Date: 01/31/2024

Effective Date: 02/01/2019

Days to Expiration: -1569

AE115
Target
Property

**216 E PARK NORTH
NORTH BEND, WA**

**WA ASBESTOS S124427839
N/A**

Site 1 of 4 in cluster AE

Actual: ASBESTOS:

448 ft. Name: Not reported

Focus Map: Address: 216 E PARK NORTH

12 City,State,Zip: NORTH BEND, WA

Facility Type: Not reported

Parent ID: Not reported

Form ID: 139267#1321462110

Notice Date: 03/17/2019

Start Date: 04/08/2019

Completion Date: 04/10/2019

Initial: Not reported

Amended: Not reported

On Hold: Not reported

Off Hold: Not reported

Emergency: Not reported

Site Hours Start: Not reported

Site Hours End: Not reported

Sunday: Not reported

Monday: Not reported

Tuesday: Not reported

Wednesday: Not reported

Thursday: Not reported

Friday: Not reported

Saturday: Not reported

Contractor ID: Not reported

Phone: Not reported

Job Site CAS: Not reported

Project Form Email: Not reported

Property Owner Name: Not reported

Property Owner Agent: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S124427839

Property Owner Company:	ASBESTOS REMOVAL OF PGT SD LLC (EVERETT) (ABCN00001683)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S124427839

Other Resp Pro: Not reported
Other Resp Pro Text: Not reported
Comments: Not reported
Date Time Submitted: Not reported
Submitter IP Address: Not reported
Region: 2
UBI: 604342779
Notice type: Initial
Project Type: Sheet Vinyl
Supervisor: Corey Allen (abas00030889) ACTIVE
Supervisor Phone: Not reported
Certificate Status: ACTIVE

116 **LIGHTRECYCLE WASHINGTON ORGANIZATION**
Target **330 MAIN AVE. S**
Property **NORTH BEND, WA 98045**

WA SWRCY S117807189
N/A

Actual:
448 ft.

Focus Map:
12

SWRCY:

Name: LIGHTRECYCLE WASHINGTON ORGANIZATION
Address: 330 MAIN AVE. S
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1322
Service: North Bend Ace Hardware
Phone: 425-888-8569
Extension: Not reported
Website: <https://www.lightrecycle.org/>
Email: joanne.neugebauer-rex@ecy.wa.gov
Material Category: Household hazardous waste
Material Accepted: Light bulbs - Fluorescents
Contact Name: Joanne Neugebauer-Rex
Type: Commercial
Service Type: Dropoff
Light Recycle Participant: Yes
E-Cycle: No
Hours: Mon-Sat, 7am-9pm; Sun, 8am-8pm
Comments: Recycle up to 10 fluorescent lights, CFLs and HiDs per day for free.

Name: LIGHTRECYCLE WASHINGTON ORGANIZATION
Address: 330 MAIN AVE. S
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 1322
Service: North Bend Ace Hardware
Phone: 425-888-8569
Extension: Not reported
Website: <https://www.lightrecycle.org/>
Email: joanne.neugebauer-rex@ecy.wa.gov
Material Category: Household hazardous waste
Material Accepted: Light bulbs - Fluorescents
Contact Name: Joanne Neugebauer-Rex
Type: Residential
Service Type: Dropoff
Light Recycle Participant: Yes
E-Cycle: No
Hours: Mon-Sat, 7am-9pm; Sun, 8am-8pm
Comments: Recycle up to 10 fluorescent lights, CFLs and HiDs per day for free.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AC117
Target
Property

GRINA DONALD D
417 1ST AVE E
NORTH BEND, WA 98045

EDR Hist Auto **1020765599**
N/A

Site 4 of 4 in cluster AC

Actual:
450 ft.

EDR Hist Auto

Focus Map:
12

Year: Name:
1970 GRINA DONALD D

Type:
Gasoline Service Stations

AE118

Target
Property

228 E PARK AVE NORTH
NORTH BEND, WA

WA ASBESTOS **S124427898**
N/A

Site 2 of 4 in cluster AE

Actual:
448 ft.

ASBESTOS:

Focus Map:
12

Name:	Not reported
Address:	228 E PARK AVE NORTH
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	139268#1440185777
Notice Date:	03/17/2019
Start Date:	04/10/2019
Completion Date:	04/12/2019
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	ASBESTOS REMOVAL OF PGT SD LLC (EVERETT) (ABCN00001683)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S124427898

Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	604342779
Notice type:	Initial
Project Type:	Mastic
Supervisor:	corey allen (abas00030889) ACTIVE
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AD119
Target
Property

**PLAT OF RIVER GLEN
PICKETT AVE,
NORTH BEND, WA 98045**

WA UIC
S121083730
N/A

Site 2 of 2 in cluster AD

Actual:
460 ft.

Focus Map:
13

UIC:

Name: PLAT OF RIVER GLEN
Address: PICKETT AVE,
City,State,Zip: NORTH BEND, WA 98045
Site Number: 33405
Owner Name: River Glen Home Owner's Association
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.492727
Longitude: 121.76939
Well Name: Trench 1B
Registration Type: Municipal Stormwater
Construction Date: 10/12/2016
Construction Type: Infiltration trench with perforated pipe
Depth: 3

AF120
Target
Property

**411 MAIN AVE. SOUTH
NORTH BEND, WA**

WA ASBESTOS
S125600859
N/A

Site 1 of 2 in cluster AF

Actual:
450 ft.

Focus Map:
12

ASBESTOS:

Name: Not reported
Address: 411 MAIN AVE. SOUTH
City,State,Zip: NORTH BEND, WA
Facility Type: Not reported
Parent ID: Not reported
Form ID: 32735##1016Perfo068321
Notice Date: 10/09/2009
Start Date: 10/19/2009
Completion Date: 10/30/2009
Initial: Not reported
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: Not reported
Site Hours End: Not reported
Sunday: Not reported
Monday: Not reported
Tuesday: Not reported
Wednesday: Not reported
Thursday: Not reported
Friday: Not reported
Saturday: Not reported
Contractor ID: Not reported
Phone: Not reported
Job Site CAS: Not reported
Project Form Email: Not reported
Property Owner Name: Not reported
Property Owner Agent: Not reported
Property Owner Company: PERFORMANCE ABATEMENT SRVC INC (ABCN00001016)
Property Owner Address: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125600859

Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125600859

Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601018806
Notice type:	Initial
Project Type:	Sheet Vinyl
Supervisor:	Mark Hamper ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	411 MAIN AVE. SOUTH
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	33186##1016Perfo866863
Notice Date:	10/28/2009
Start Date:	10/19/2009
Completion Date:	10/30/2009
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	PERFORMANCE ABATEMENT SRVC INC (ABCN00001016)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125600859

Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601018806
Notice type:	Initial
Project Type:	Sheet Vinyl
Supervisor:	Mark Hamper ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	411 MAIN AVE. SOUTH
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125600859

Parent ID:	Not reported
Form ID:	33209##1016Perfo812892
Notice Date:	10/29/2009
Start Date:	10/19/2009
Completion Date:	10/30/2009
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	PERFORMANCE ABATEMENT SRVC INC (ABCN00001016)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125600859

Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601018806
Notice type:	Initial
Project Type:	Sheet Vinyl
Supervisor:	Mark Hamper ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

121

Target
Property

316 CEDAR AVE S
NORTH BEND, WA 98045

WA ASBESTOS

S121066415

N/A

Actual:
449 ft.

Focus Map:
12

ASBESTOS:

Name:	Not reported
Address:	316 CEDAR AVE S
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	Commercial
Parent ID:	0
Form ID:	146974##1577Puget418535
Notice Date:	08/03/2017
Start Date:	08/17/2017
Completion Date:	08/18/2017
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:00 a.m.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121066415

Site Hours End:	5:00 p.m.
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	4257576872
Job Site CAS:	Josiah Moliga
Project Form Email:	dan@pugetsoundabatement.com
Property Owner Name:	Molly Pepler
Property Owner Agent:	Not reported
Property Owner Company:	Puget Sound Abatement LLC (ABCN00001577)
Property Owner Address:	316 Cedar Ave S
Property Owner City:	North Bend
Property Owner State:	WA
Property Owner Zip4:	98045
Property Owner Phone:	509-770-3347
Job Site Room:	Not reported
Facility Age:	1976
Facility Size:	900
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	191
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	Drywall texture
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121066415

Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	1
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2017-08-03 08:35:20
Submitter IP Address:	65.152.183.35
Region:	2
UBI:	603345715
Notice type:	Initial
Project Type:	Other Square Footage
Supervisor:	Josiah Moliga ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	316 CEDAR AVENUE S UNIT #8
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	72366##1386Super709023
Notice Date:	06/05/2013
Start Date:	06/06/2013
Completion Date:	06/06/2013
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Superior Cleaning & Restoratio (ABCN00001386)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121066415

Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121066415

Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	602293355
Notice type:	Emergency
Project Type:	Sheet Vinyl
Supervisor:	Jeffrey Hanson ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

AG122

Target
Property

468 E NORTHBEND WAY
NORTH BEND, WA

WA SPILLS

S122368877
N/A

Site 1 of 2 in cluster AG

Actual:
451 ft.

Focus Map:
12

SPILLS:	
Name:	Not reported
Address:	468 E NORTHBEND WAY
City,State,Zip:	NORTH BEND, WA
Facility ID:	601100
Medium:	Not reported
Material Desc:	ODOR
Material Qty:	Not reported
Material Units:	Not reported
Date Received:	11/19/2007
Contact Name:	UNKNOWN
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

AG123

Target
Property

NEIGHBORING GAS STATION
468 E NORTH BEND WY
NORTH BEND, WA

WA SPILLS

S108894505
N/A

Site 2 of 2 in cluster AG

Actual:
451 ft.

Focus Map:
12

SPILLS:	
Name:	NEIGHBORING GAS STATION
Address:	468 E NORTH BEND WY
City,State,Zip:	NORTH BEND, WA
Facility ID:	601100
Medium:	Not reported
Material Desc:	PETROLEUM - GASOLINE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NEIGHBORING GAS STATION (Continued)

S108894505

Material Qty: Not reported
Material Units: Not reported
Date Received: 11/17/2007
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

Name: NORTHBEND 76
Address: 468 E NORTH BEND WY
City,State,Zip: NORTH BEND, WA
Facility ID: 601100
Medium: Not reported
Material Desc: ODOR
Material Qty: Not reported
Material Units: Not reported
Date Received: 12/03/2007
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

Name: NORTH BEND 76
Address: 468 E NORTH BEND WY
City,State,Zip: NORTH BEND, WA
Facility ID: 601100
Medium: Not reported
Material Desc: ODOR
Material Qty: Not reported
Material Units: Not reported
Date Received: 12/03/2007
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NEIGHBORING GAS STATION (Continued)

S108894505

Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

AH124 QFC SHOPPING CENTER PLAZA
Target 470 E NORTH BEND WAY
Property NORTH BEND, WA 98045

WA UST U003604815
WA ALLSITES N/A

Site 1 of 12 in cluster AH

Actual:
452 ft.

Focus Map:
12

UST:
Name: QFC SHOPPING CENTER PLAZA
Address: 470 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045
Facility ID: 95994624
Site Id: 496567
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.477855
Decimal Longitude: -121.751831

Tank Name: 1
Tag Number: Not reported
Tank Status: Exempt
Tank Status Date: 12/10/1999
Tank Install Date: 01/01/1900
Tank Closure Date: 04/21/1995
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: QFC SHOPPING CENTER PLAZA
Facility Id: 95994624

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

QFC SHOPPING CENTER PLAZA (Continued)

U003604815

Interaction: 74616
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 496567
Date Interaction: 1999-05-06 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.477849325999998
Longitude: -121.75181623100001

AH125 QFC SHOPPING CENTER PLAZA
Target 470 E NORTH BEND WAY
Property NORTH BEND, WA 98045

FINDS 1007062362
N/A

Site 2 of 12 in cluster AH

Actual: FINDS:
452 ft. Registry ID: 110015388999
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015388999
12

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AE126 NORTH BEND
Target 215 E PARK
Property NORTH BEND, WA 98045

WA UST U004040582
N/A

Site 3 of 4 in cluster AE

Actual: UST:
449 ft. Name: NORTH BEND
Focus Map: Address: 215 E PARK
12 City: NORTH BEND
Zip: 98045
Facility ID: 11551752
Site Id: 6878
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.494424
Decimal Longitude: -121.790622

Tank Name: 7581
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND (Continued)

U004040582

Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Steel
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Not reported

Name: NORTH BEND
Address: 215 E PARK
City: NORTH BEND
Zip: 98045

Tank Name: 7582
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Steel
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AE127 **NORTH BEND**
Target **215 E PARK**
Property **NORTH BEND, WA 98045**

WA ALLSITES **1007076104**
FINDS **N/A**

Site 4 of 4 in cluster AE

Actual:
449 ft.

ALLSITES:

Focus Map:
12

Name: NORTH BEND
Facility Id: 11551752

Interaction: 26254
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 6878
Date Interaction: 2000-02-29 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.494418328999998
Longitude: -121.790607221

FINDS:

Registry ID: 110015527553
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015527553

Environmental Interest/Information System:

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[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AF128 **MOUNTSIDE DRY CLEANERS**
Target **412 MAIN AVE S**
Property **NORTH BEND, WA 98045**

EDR Hist Cleaner **1020045017**
N/A

Site 2 of 2 in cluster AF

Actual:
449 ft.

EDR Hist Cleaner

Focus Map:
12

Year:	Name:	Type:
1994	FALLS LAUNDRY INC	Drycleaning Plants, Except Rugs
1995	FALLS LAUNDRY INC	Drycleaning Plants, Except Rugs
1996	FALLS LAUNDRY INC	Drycleaning Plants, Except Rugs
1998	FALLS LAUNDRY INC	Drycleaning Plants, Except Rugs
1999	FALLS LAUNDRY INC	Drycleaning Plants, Except Rugs
2000	FALLS LAUNDRY INC	Drycleaning Plants, Except Rugs
2001	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs
2002	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs
2003	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs
2004	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs
2005	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs
2006	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs
2007	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MOUNTSIDE DRY CLEANERS (Continued)

1020045017

2008	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs
2009	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs
2010	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs
2011	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs
2012	MOUNTSIDE DRY CLEANERS	Drycleaning Plants, Except Rugs

AI129 **CITY OF NORTH BEND NE 3RD ST**
Target **NE 3RD ST**
Property **NORTH BEND, WA 98045**

WA UIC **S121083726**
N/A

Site 1 of 2 in cluster AI

Actual:
461 ft.

Focus Map:
13

UIC:

Name:	CITY OF NORTH BEND NE 3RD ST
Address:	NE 3RD ST
City,State,Zip:	NORTH BEND, WA 98045
Site Number:	33406
Owner Name:	City of North Bend
Well Status:	Active
EPA Well Type:	5H1 - Stormwater
Latitude:	47.49223
Longitude:	121.7688
Well Name:	Trench 6
Registration Type:	Municipal Stormwater
Construction Date:	10/12/2016
Construction Type:	Infiltration trench with perforated pipe
Depth:	3

Name:	CITY OF NORTH BEND NE 3RD ST
Address:	NE 3RD ST
City,State,Zip:	NORTH BEND, WA 98045
Site Number:	33406
Owner Name:	City of North Bend
Well Status:	Active
EPA Well Type:	5H1 - Stormwater
Latitude:	47.49223
Longitude:	121.7688
Well Name:	Trench 5
Registration Type:	Municipal Stormwater
Construction Date:	10/12/2016
Construction Type:	Infiltration trench with perforated pipe
Depth:	3

Name:	CITY OF NORTH BEND NE 3RD ST
Address:	NE 3RD ST
City,State,Zip:	NORTH BEND, WA 98045
Site Number:	33406
Owner Name:	City of North Bend
Well Status:	Active
EPA Well Type:	5H1 - Stormwater
Latitude:	47.49223
Longitude:	121.7688
Well Name:	Trench 4
Registration Type:	Municipal Stormwater
Construction Date:	10/12/2016
Construction Type:	Infiltration trench with perforated pipe
Depth:	3

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AI130
Target
Property

**CITY OF NORTH BEND NE 3RD ST
NE 3RD ST
NORTH BEND, WA 98045**

WA ALLSITES
S119162658
N/A

Site 2 of 2 in cluster AI

Actual:
461 ft.

Focus Map:
13

ALLSITES:
Name: CITY OF NORTH BEND NE 3RD ST
Facility Id: 945

Interaction: 120336
Interaction 1: A
Interaction 2: UIC
Ecology Program: WATQUAL
Program Data: UIC
Facility Alt.: City of North Bend NE 3rd St
Program ID: 33406
Date Interaction: 2016-10-12 00:00:00
Date Interaction 3: Underground Injection Con
Latitude: 47.492043500999998
Longitude: -121.769982454

131
Target
Property

**RANGER STATION COTTAGES
SEC 424TH AVE SE & SE 120TH ST
NORTH BEND, WA 98045**

FINDS
ECHO
1018354909
N/A

Actual:
459 ft.

Focus Map:
13

FINDS:
Registry ID: 110066841868
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110066841868

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1018354909
Registry ID: 110066841868
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110066841868>

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AH132
Target
Property

76 GAS STATION
NORTH BEND, WA

WA SPILLS

S120917004
N/A

Site 3 of 12 in cluster AH

Actual:
453 ft.

SPILLS:

Focus Map:
12

Name: Not reported
Address: 76 GAS STATION
City,State,Zip: NORTH BEND, WA
Facility ID: 94320
Medium: Impermeable surface
Material Desc: DIESEL/MARINE GAS OIL
Material Qty: 0.5
Material Units: Not reported
Date Received: Not reported
Contact Name: Not reported
Incident Date: 06/29/2017
Incident Category Type: Oil Spill
Incident Category: Oil Spill
Latitude: 47.4921
Longitude: -121.78
Source Type: Facility
Source: Retail Petroleum Outlet
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: 76 GAS STATION

AH133
Target
Property

NORTH BEND 76
520 E NORTH BEND WAY
NORTH BEND, WA

WA RGA HWS

S115344403
N/A

Site 4 of 12 in cluster AH

Actual:
453 ft.

RGA HWS:

Focus Map:
12

2012	NORTH BEND 76	520 E NORTH BEND WAY
2011	NORTH BEND 76	520 E NORTH BEND WAY
2010	NORTH BEND 76	520 E NORTH BEND WAY
2009	NORTH BEND 76	520 E NORTH BEND WAY
2008	NORTH BEND 76	520 E NORTH BEND WAY

AH134
Target
Property

NORTH BEND 76
520 E NORTH BEND WAY
NORTH BEND, WA

WA RGA LUST

S115439773
N/A

Site 5 of 12 in cluster AH

Actual:
453 ft.

RGA LUST:

Focus Map:
12

2012	NORTH BEND 76	520 E NORTH BEND WAY
2011	NORTH BEND 76	520 E NORTH BEND WAY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AH135 **NORTH BEND GASOLINE, INC**
Target **520 E N BEND WAY**
Property **NORTH BEND, WA 98045**

WA UIC **S121083725**
 N/A

Site 6 of 12 in cluster AH

Actual:
453 ft.

UIC:

Focus Map:
12

Name: NORTH BEND GASOLINE, INC
Address: 520 E N BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Site Number: 31347
Owner Name: North Bend Gasoline, Inc
Well Status: Active
EPA Well Type: 5B6 - Aquifer remediation
Latitude: 47.49219
Longitude: 121.78043
Well Name: Area 2
Registration Type: Voluntary or Independent Cleanup Sites
Construction Date: 06/01/2011
Construction Type: Not reported
Depth: 10

Name: NORTH BEND GASOLINE, INC
Address: 520 E N BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Site Number: 31347
Owner Name: North Bend Gasoline, Inc
Well Status: Active
EPA Well Type: 5B6 - Aquifer remediation
Latitude: 47.49219
Longitude: 121.78043
Well Name: AREA 1
Registration Type: Voluntary or Independent Cleanup Sites
Construction Date: 05/01/2011
Construction Type: Not reported
Depth: 10

AH136 **STANDARD SERVICES & DISTN***
Target **520 E NORTH BAND WAY**
Property **NORTH BEND, WA 98045**

EDR Hist Auto **1020137831**
 N/A

Site 7 of 12 in cluster AH

Actual:
453 ft.

EDR Hist Auto

Focus Map:
12

Year:	Name:	Type:
1980	STANDARD SERVICES & DISTN*	Gasoline Service Stations
1982	CLEARVIEW ENTERPRISES INC	Gasoline Service Stations
1983	CLEARVIEW ENTERPRISES INC	Gasoline Service Stations
1991	S SQUARED ENTERPRISES INC	Gasoline Service Stations
1992	S SQUARED ENTERPRISES INC	Gasoline Service Stations
1993	S SQUARED ENTERPRISES INC	Gasoline Service Stations
1994	S SQUARED ENTERPRISES INC	Gasoline Service Stations
1995	S SQUARED ENTERPRISES INC	Gasoline Service Stations

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AH137
Target
Property

520 E NORTHBEND WY
NORTH BEND, WA

WA SPILLS S116363916
N/A

Site 8 of 12 in cluster AH

Actual:
453 ft.

SPILLS:

Focus Map:
12

Name: Not reported
Address: 520 E NORTHBEND WY
City,State,Zip: NORTH BEND, WA
Facility ID: 648333
Medium: AIR
Material Desc: OTHER - SEE NOTE
Material Qty: 0
Material Units: ACRE
Date Received: Not reported
Contact Name: UNKNOWN
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

AH138
Target
Property

520 EAST NORTHBEND WAY
NORTH BEND, WA

ERNS 2014080814
N/A

Site 9 of 12 in cluster AH

Actual:
453 ft.

[Click this hyperlink](#) while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Focus Map:
12

AH139
Target
Property

NORTH BEND 76
520 E NORTH BEND WAY
NORTH BEND, WA 98045

WA VCP S124434412
N/A

Site 10 of 12 in cluster AH

Actual:
453 ft.

VCP:

Focus Map:
12

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
edr_fstat: WA
edr_fzip: 98045
edr_fcnty: KING
edr_zip: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND 76 (Continued)

S124434412

Facility ID: 4364196
VCP Status: Not reported
VCP: TRUE
Ecology Status: Not reported
NFA Type: Not reported
Date NFA: Not reported
Rank: Not reported
Cleanup Siteid: 5336
Contaminant Name: Benzene
Soil: Confirmed Above Cleanup Levels

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
edr_fstat: WA
edr_fzip: 98045
edr_fcnty: KING
edr_zip: Not reported
Facility ID: 4364196
VCP Status: Not reported
VCP: TRUE
Ecology Status: Not reported
NFA Type: Not reported
Date NFA: Not reported
Rank: Not reported
Cleanup Siteid: 5336
Contaminant Name: Non-Halogenated Solvents
Soil: Confirmed Above Cleanup Levels

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
edr_fstat: WA
edr_fzip: 98045
edr_fcnty: KING
edr_zip: Not reported
Facility ID: 4364196
VCP Status: Not reported
VCP: TRUE
Ecology Status: Not reported
NFA Type: Not reported
Date NFA: Not reported
Rank: Not reported
Cleanup Siteid: 5336
Contaminant Name: Petroleum-Gasoline
Soil: Confirmed Above Cleanup Levels

AH140 **NORTH BEND 76**
Target **520 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

WA Financial Assurance **S121603549**
N/A

Site 11 of 12 in cluster AH

Actual: WA Financial Assurance 1:
453 ft. Name:
Focus Map: Address:
12 City,State,Zip:
DOE Site ID:

NORTH BEND 76
520 E NORTH BEND WAY
NORTH BEND, WA 98045
8108

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND 76 (Continued)

S121603549

Financial Resp Type:	LIBERTY SURPLUS INSURANCE CORP
Inception Date:	05/06/2013
Expiration Date:	03/29/2014
Address 2:	Not reported
Policy Number:	TXESF104453112
Effective Date:	03/29/2013
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.490984
Longitude:	-121.779911
Name:	NORTH BEND 76
Address:	520 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
DOE Site ID:	8108
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	03/24/2017
Expiration Date:	03/29/2018
Address 2:	Not reported
Policy Number:	BTA 9990973-03
Effective Date:	03/24/2017
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.490984
Longitude:	-121.779911
Name:	NORTH BEND 76
Address:	520 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
DOE Site ID:	8108
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	03/07/2018
Expiration Date:	03/29/2019
Address 2:	Not reported
Policy Number:	BTA 9990973-04
Effective Date:	03/07/2018
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.490984
Longitude:	-121.779911
Name:	NORTH BEND 76
Address:	520 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
DOE Site ID:	8108
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	03/22/2016
Expiration Date:	03/29/2017
Address 2:	Not reported
Policy Number:	BTA 9990973-02
Effective Date:	03/22/2016

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND 76 (Continued)

S121603549

Liability Limit Type: Not reported
Compliance Method: Not reported
Proof of Responsibility Document Flag: Not reported
Retroactive Date: Not reported
Latitude: 47.490984
Longitude: -121.779911

AH141 NORTH BEND 76
Target 520 E NORTH BEND WAY
Property NORTH BEND, WA 98045

WA CSCSL 1007078478
WA LUST N/A
WA UST
WA ALLSITES
FINDS

Site 12 of 12 in cluster AH

Actual: CSCSL:
453 ft. Name: NORTH BEND 76
Focus Map: Address: 520 E NORTH BEND WAY
12 City,State,Zip: NORTH BEND, WA 98045
Facility ID: 4364196
Region: Northwest
Lat/Long: 47.490984 / -121.779911
Clean Up Siteid: 5336
Site Status: Cleanup Started
Contaminant Name: Benzene
Alternate Site Names: PAUL BUNYAN MARKET
Site Rank: Not reported
Has Institutional Control: Not reported
Past VCP: True
Current VCP: True
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Confirmed Above Cleanup Levels
Bedrock: Not reported
Responsible Unit: Northwest

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 4364196
Region: Northwest
Lat/Long: 47.490984 / -121.779911
Clean Up Siteid: 5336
Site Status: Cleanup Started
Contaminant Name: Non-Halogenated Solvents
Alternate Site Names: PAUL BUNYAN MARKET
Site Rank: Not reported
Has Institutional Control: Not reported
Past VCP: True
Current VCP: True
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Confirmed Above Cleanup Levels
Bedrock: Not reported
Responsible Unit: Northwest

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND 76 (Continued)

1007078478

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 4364196
Region: Northwest
Lat/Long: 47.490984 / -121.779911
Clean Up Siteid: 5336
Site Status: Cleanup Started
Contaminant Name: Petroleum-Gasoline
Alternate Site Names: PAUL BUNYAN MARKET
Site Rank: Not reported
Has Institutional Control: Not reported
Past VCP: True
Current VCP: True
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Confirmed Above Cleanup Levels
Bedrock: Not reported
Responsible Unit: Northwest

LUST:

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 4364196
Lust Status Type: LUST - Awaiting Cleanup
Cleanup Site ID: 5336
Cleanup Unit Type: Upland
Process Type: Voluntary Cleanup Program
Cleanup Unit Name: PAUL BUNYAN MARKET
Response Section: Northwest
Release Date: 10/02/2007
Lust Date: 10/02/2007
Region: Northwest
Lust ID: 6329
UST ID: 8108
Contaminant Name: Non-Halogenated Solvents
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Confirmed Above Cleanup Levels
Bedrock: Not reported
Lat/Long: 47.490984 / -121.779911

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 4364196
Lust Status Type: LUST - Awaiting Cleanup
Cleanup Site ID: 5336
Cleanup Unit Type: Upland
Process Type: Voluntary Cleanup Program
Cleanup Unit Name: PAUL BUNYAN MARKET
Response Section: Northwest

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND 76 (Continued)

1007078478

Release Date: 10/02/2007
Lust Date: 10/02/2007
Region: Northwest
Lust ID: 6329
UST ID: 8108
Contaminant Name: Benzene
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Confirmed Above Cleanup Levels
Bedrock: Not reported
Lat/Long: 47.490984 / -121.77991

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 4364196
Lust Status Type: LUST - Awaiting Cleanup
Cleanup Site ID: 5336
Cleanup Unit Type: Upland
Process Type: Voluntary Cleanup Program
Cleanup Unit Name: PAUL BUNYAN MARKET
Response Section: Northwest
Release Date: 10/02/2007
Lust Date: 10/02/2007
Region: Northwest
Lust ID: 6329
UST ID: 8108
Contaminant Name: Petroleum-Gasoline
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Confirmed Above Cleanup Levels
Bedrock: Not reported
Lat/Long: 47.490984 / -121.77991

UST:

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045
Facility ID: 4364196
Site Id: 8108
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.490984
Decimal Longitude: -121.779911

Tank Name: 1
Tag Number: A8570
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND 76 (Continued)

1007078478

Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 2
Tag Number: A8570
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND 76 (Continued)

1007078478

Tank Name: 3
Tag Number: A8570
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 4
Tag Number: A8570
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 03/09/1990
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 01/31/2020
Tank Upgrade Date: 04/01/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Dielectric Coated Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection: Impressed Current
Tank Manifold: Auxiliary
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Galvanic Anode
Pipe Material: Fiberglass
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND 76 (Continued)

1007078478

Dispencer/Pump SFC Type: Sump

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 5
Tag Number: A8570
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 03/09/1990
Tank Closure Date: Not reported
Capacity Range: 5,000 to 9,999 Gallons
Tank Permit Expiration Date: 01/31/2020
Tank Upgrade Date: 04/01/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Dielectric Coated Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection: Impressed Current
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Galvanic Anode
Pipe Material: Fiberglass
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Sump

Name: NORTH BEND 76
Address: 520 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 6
Tag Number: A8570
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 03/09/1990
Tank Closure Date: Not reported
Capacity Range: 5,000 to 9,999 Gallons
Tank Permit Expiration Date: 01/31/2020
Tank Upgrade Date: 04/01/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Dielectric Coated Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection: Impressed Current
Tank Manifold: Main
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Galvanic Anode

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND 76 (Continued)

1007078478

Pipe Material: Fiberglass
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

ALLSITES:

Name: NORTH BEND 76
Facility Id: 4364196

Interaction: 94724
Interaction 1: A
Interaction 2: VOLCLNST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: NORTH BEND 76
Program ID: NW2349
Date Interaction: 2010-11-10 00:00:00
Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.490978327999997
Longitude: -121.77989622299999

Interaction: 14540
Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 8108
Date Interaction: 2000-03-20 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.490978327999997
Longitude: -121.77989622299999

Interaction: 14542
Interaction 1: I
Interaction 2: VOLCLNST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: NORTH BEND 76
Program ID: NW1922
Date Interaction: 2008-04-10 00:00:00
Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.490978327999997
Longitude: -121.77989622299999

Interaction: 88973
Interaction 1: A
Interaction 2: ENFORFNL
Ecology Program: TOXICS
Program Data: DMS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND 76 (Continued)

1007078478

Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 2009-12-03 00:00:00
Date Interaction 3: Enforcement Final
Latitude: 47.490978327999997
Longitude: -121.77989622299999

Interaction: 14541
Interaction 1: A
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 8108
Date Interaction: 2007-10-02 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.490978327999997
Longitude: -121.77989622299999

FINDS:

Registry ID: 110015551678
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015551678

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AJ142 **NORTH BEND 76**
Target **468 - 482 E NORTH BEND WAY**
Property **NORTH BEND, WA**

WA SPILLS **S108894518**
N/A

Site 1 of 5 in cluster AJ

Actual:
453 ft.

Focus Map:
12

SPILLS:
Name: NORTH BEND 76
Address: 468 - 482 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA
Facility ID: 601100
Medium: Not reported
Material Desc: OTHER - SEE NOTE
Material Qty: Not reported
Material Units: Not reported
Date Received: 11/13/2007
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND 76 (Continued)

S108894518

Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

143

Target 209 THRASHER AVE
Property NORTH BEND, WA

WA SPILLS **S105685446**
N/A

SPILLS:

Actual:
457 ft.

Focus Map:
12

Name: Not reported
Address: 209 THRASHER AVE
City,State,Zip: NORTH BEND, WA
Facility ID: 530501
Medium: Not reported
Material Desc: CHEMICAL
Material Qty: Not reported
Material Units: Not reported
Date Received: 11/27/2002
Contact Name: UNK
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

AJ144 **PHOENIX PLAZA**
Target **530 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S121970746**
WA NPDES **N/A**

Site 2 of 5 in cluster AJ

Actual:
454 ft.

Focus Map:
12

ALLSITES:
Name: PHOENIX PLAZA
Facility Id: 88757

NPDES:

Name: PHOENIX PLAZA
Address: 530 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PHOENIX PLAZA (Continued)

S121970746

Latitude: Not reported
Longitude: Not reported
Permit ID: WAR306309
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 03/19/2018
Days to Expiration: -443

AJ145
Target
Property

530-570 E. NORTH BEND WAY
NORTH BEND, WA 98045

WA ASBESTOS S119170501
N/A

Site 3 of 5 in cluster AJ

Actual:
454 ft.

ASBESTOS:

Focus Map:
12

Name: Not reported
Address: 530-570 E. NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility Type: Commercial
Parent ID: 0
Form ID: 88140##1177North586014
Notice Date: 07/22/2014
Start Date: 08/04/2014
Completion Date: 08/29/2014
Initial: 1
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: 7:00 AM
Site Hours End: 3:30 PM
Sunday: Not reported
Monday: 1
Tuesday: 1
Wednesday: 1
Thursday: 1
Friday: 1
Saturday: Not reported
Contractor ID: Not reported
Phone: 253-588-0440
Job Site CAS: Doug Murphy
Project Form Email: chris@nwabatement.com
Property Owner Name: Robert Wheeler
Property Owner Agent: Not reported
Property Owner Company: Northwest Abatement Services I (ABCN00001177)
Property Owner Address: 9027 SE 60th St.
Property Owner City: Mercer Island
Property Owner State: WA
Property Owner Zip4: 98045
Property Owner Phone: 206-232-4637
Job Site Room: Not reported
Facility Age: 1965
Facility Size: 7500 sq ft
Facility Remodel: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119170501

Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	2500
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	drywall debris in piles
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	1
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	1
Other CM1 Text:	regulated area
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Commercial buildings burned and debris in piles on site. One sample indicates asbestos in drywall/mud - survey assumes debris contamination. Debris will be characterized on site during debris removal and segregated where possible.
Date Time Submitted:	2014-07-22 15:38:27
Submitter IP Address:	173.10.104.109
Region:	2
UBI:	601580291

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119170501

Notice type:	Initial
Project Type:	Other Square Footage
Supervisor:	Doug Murphy ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

AJ146
Target
Property

PHOENIX PLAZA
530 E NORTH BEND WAY
NORTH BEND, WA 98045

FINDS **1024231413**
N/A

Site 4 of 5 in cluster AJ

Actual: 454 ft.
Focus Map: 12

FINDS:
Registry ID: 110070229416
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110070229416

Environmental Interest/Information System:

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AJ147
Target
Property

PHOENIX PLAZA
530 E NORTH BEND WAY
NORTH BEND, WA 98045

ECHO **1024134402**
N/A

Site 5 of 5 in cluster AJ

Actual: 454 ft.
Focus Map: 12

ECHO:
Envid: 1024134402
Registry ID: 110070229416
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110070229416>

148
Target
Property

RANGER STATION COTTAGES
SEC 424TH AVE SE & SE 120TH ST
NORTH BEND, WA 98045

WA ALLSITES **S118344684**
WA NPDES **N/A**

ALLSITES:

Actual: 459 ft.	Name:	RANGER STATION COTTAGES
Focus Map: 12	Facility Id:	14309
	Interaction:	114913
	Interaction 1:	A
	Interaction 2:	CONSTSWGP
	Ecology Program:	WATQUAL
	Program Data:	PARIS
	Facility Alt.:	Ranger Station Cottages
	Program ID:	WAR303471

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RANGER STATION COTTAGES (Continued)

S118344684

Date Interaction: 2015-10-01 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.491408032999999
Longitude: -121.77368892299999

NPDES:

Name: RANGER STATION COTTAGES
Address: SEC 424TH AVE SE & SE 120TH ST
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR303471
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 01/01/2016
Days to Expiration: -443

149

**Target
Property**

**424 HEALY AVE S
NORTH BEND, WA**

**WA SPILLS S105889674
N/A**

SPILLS:

**Actual:
452 ft.**

**Focus Map:
12**

Name: Not reported
Address: 424 HEALY AVE S
City,State,Zip: NORTH BEND, WA
Facility ID: 534651
Medium: Not reported
Material Desc: CHEMICAL
Material Qty: 2
Material Units: GALLON
Date Received: 06/30/2003
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

150
Target
Property

APARTMENT MANAGER
MAIN AVE S & STOW AVE S,
NORTH BEND, WA

WA SPILLS **S109880561**
N/A

Actual:
450 ft.
Focus Map:
12

SPILLS:

Name: APARTMENT MANAGER
Address: MAIN AVE S & STOW AVE S,
City,State,Zip: NORTH BEND, WA
Facility ID: 516192
Medium: Not reported
Material Desc: DEBRIS/GARBAGE
Material Qty: Not reported
Material Units: Not reported
Date Received: 02/07/2001
Contact Name: UNKNOWN
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

AK151
Target
Property

ORCHARD PLACE APARTMENTS
240 SE ORCHARD DR
NORTH BEND, WA 98045

WA ALLSITES **S121970056**
WA NPDES **N/A**

Site 1 of 3 in cluster AK

Actual:
456 ft.
Focus Map:
12

ALLSITES:

Name: ORCHARD PLACE APARTMENTS
Facility Id: 28903

NPDES:

Name: ORCHARD PLACE APARTMENTS
Address: 240 SE ORCHARD DR
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR306494
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 05/29/2018
Days to Expiration: -443

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AK152 **ORCHARD PLACE APARTMENTS**
Target **240 SE ORCHARD DR**
Property **NORTH BEND, WA 98045**

ECHO **1024139325**
 N/A

Site 2 of 3 in cluster AK

Actual: **ECHO:**
456 ft. Envid: 1024139325
Focus Map: Registry ID: 110070237111
12 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110070237111>

AK153 **ORCHARD PLACE APARTMENTS**
Target **240 SE ORCHARD DR**
Property **NORTH BEND, WA 98045**

FINDS **1024236636**
 N/A

Site 3 of 3 in cluster AK

Actual: **FINDS:**
456 ft. Registry ID: 110070237111
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110070237111
12

Environmental Interest/Information System:

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AL154 **NORTH BEND GARDINER CREEK SEDIMENT CTRL**
Target **400 S FORK AVE SW**
Property **NORTH BEND, WA 98045**

WA ALLSITES **1011278742**
FINDS **N/A**

Site 1 of 3 in cluster AL

Actual: **ALLSITES:**
445 ft. Name: NORTH BEND GARDINER CREEK SEDIMENT CTRL
Focus Map: Facility Id: 7504025
12

Interaction: 20853
Interaction 1: A
Interaction 2: SEAPROJ
Ecology Program: SEA
Program Data: AQUATICS
Facility Alt.: Not reported
Program ID: 200700063
Date Interaction: 2007-10-19 00:00:00
Date Interaction 3: SEA Project Site
Latitude: 47.490654562000003
Longitude: -121.799538713

Interaction: 20854
Interaction 1: A

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND GARDINER CREEK SEDIMENT CTRL (Continued)

1011278742

Interaction 2: NONENFNL
Ecology Program: SEA
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 2007-10-19 00:00:00
Date Interaction 3: Non Enforcement Final
Latitude: 47.490654562000003
Longitude: -121.799538713

FINDS:

Registry ID: 110036136730
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110036136730

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AL155 NINTENDO DISTRIBUTION CENTER
Target 401 S FORK AVE SW
Property NORTH BEND, WA 98045

WA ALLSITES S110040347
N/A

Site 2 of 3 in cluster AL

Actual:
445 ft.

ALLSITES:

Focus Map:
12

Name: NINTENDO DISTRIBUTION CENTER
Facility Id: 8471
Interaction: 86297
Interaction 1: I
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: NINTENDO DISTRIBUTION CENTER
Program ID: WAR011755
Date Interaction: 2009-07-28 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.494194329999999
Longitude: -121.79798522

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AL156 **NINTENDO DISTRIBUTION CENTER**
Target **401 S FORK AVE SW**
Property **NORTH BEND, WA 98045**

FINDS **1016706380**
N/A

Site 3 of 3 in cluster AL

Actual:
445 ft.

FINDS:

Registry ID: 110056480384

Focus Map:
12

Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110056480384

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

157 **SI VIEW PARK AND POOL**
Target **400 SE ORCHARD DR**
Property **NORTH BEND, WA 98045**

WA ALLSITES **1007067323**
FINDS **N/A**
ECHO

ALLSITES:

Actual:
452 ft.

Name: SI VIEW POOL
Facility Id: 64517196

Focus Map:
12

Interaction: 80830
Interaction 1: I
Interaction 2: INDNPDESIP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Not reported
Program ID: WA0031127
Date Interaction: 1994-01-04 00:00:00
Date Interaction 3: Industrial NPDES IP
Latitude: 47.490675289999999
Longitude: -121.784229254

Interaction: 83058
Interaction 1: I
Interaction 2: INDNPDESIP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: SI VIEW POOL
Program ID: WA0031127
Date Interaction: 1990-01-16 00:00:00
Date Interaction 3: Industrial NPDES IP
Latitude: 47.490675289999999
Longitude: -121.784229254

Interaction: 56584
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SI VIEW PARK AND POOL (Continued)

1007067323

Facility Alt.: Not reported
Program ID: CRK000034950
Date Interaction: 1992-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.490675289999999
Longitude: -121.784229254

Interaction: 101450
Interaction 1: I
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Si View Park
Program ID: WAR125752
Date Interaction: 2012-04-23 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.490675289999999
Longitude: -121.784229254

FINDS:

Registry ID: 110015439140
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015439140

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1007067323
Registry ID: 110015439140
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110015439140>

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

158
Target
Property

NORTH BEND PIT - DIV. 5
NORTH BEND, WA 98045

MINES MRDS **1025751104**
N/A

MINES MRDS:

Actual:
485 ft.

Focus Map:
12

Name: NORTH BEND PIT - DIV. 5
Address: Not reported
Deposit identification Number: 10277670
City,State,Zip: NORTH BEND, WASHINGTON 98045
URL: https://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10277670
MRDS Identification Number: Not reported
MAS/MILS Identification Number: 0530331124
Region: NA
Country: United States
Primary Commodities: Sand and Gravel, Construction
Secondary Commodities: Not reported
Tertiary Commodities: Not reported
Operation Type: Surface
Deposit Type: Not reported
Production Size: Not reported
Development Status: Past Producer
Ore Minerals or Materials: Not reported
Gangue Minerals or Materials: Not reported
Other Minerals or Materials: Not reported
Ore Body Form: Not reported
Workings Type: Not reported
Mineral Deposit Model: Not reported
Alteration Processes: Not reported
Concentration Processes: Not reported
Previous Names: Not reported
Ore Controls: Not reported
Reporter: Western Field Operations Center (WFOC)
Host Rock Unit Name: Not reported
Host Rock Type: Not reported
Associated Rock Unit Name: Not reported
Associated Rock Type Code: Not reported
Structural Characteristics: Not reported
Tectonic Setting: Not reported
References: Not reported
First Production Year: Not reported
Began Before/After FPY: Not reported
Last Production Year: Not reported
Ended Before/After LPY: Not reported
Year Discovered: Not reported
Found Before/After YD: Not reported
Production History: Not reported
Discovery Information: Not reported
Latitude: 47.49011
Longitude: -121.79981

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AM159 **GEORGE G WYRSCH**
Target **742 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

FINDS **1007075903**
N/A

Site 1 of 4 in cluster AM

Actual:
447 ft.

FINDS:

Registry ID: 110015525528
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015525528

Focus Map:
12

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AM160 **MT SI SHELL**
Target **742 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

WA Financial Assurance **S121603766**
N/A

Site 2 of 4 in cluster AM

Actual:
447 ft.

WA Financial Assurance 1:

Focus Map:
12

Name: MT SI SHELL
Address: 742 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 97659
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 12/22/2016
Expiration Date: 12/29/2017
Address 2: Not reported
Policy Number: WA641922-4
Effective Date: 12/22/2016
Liability Limit Type: Not reported
Compliance Method: Not reported
Proof of Responsibility Document Flag: Not reported
Retroactive Date: Not reported
Latitude: 47.489316465
Longitude: -121.79407864

Name: MT SI SHELL
Address: 742 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 97659
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 12/08/2017
Expiration Date: 12/29/2018
Address 2: Not reported
Policy Number: WA641922-5
Effective Date: 12/08/2017
Liability Limit Type: Not reported
Compliance Method: Not reported
Proof of Responsibility Document Flag: Not reported
Retroactive Date: Not reported
Latitude: 47.489316465

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MT SI SHELL (Continued)

S121603766

Longitude: -121.79407864

Name: MT SI SHELL
Address: 742 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 97659
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 12/12/2018
Expiration Date: 12/29/2019
Address 2: Not reported
Policy Number: WA641922-6
Effective Date: 12/12/2018
Liability Limit Type: Not reported
Compliance Method: Not reported
Proof of Responsibility Document Flag: Not reported
Retroactive Date: Not reported
Latitude: 47.489316465
Longitude: -121.79407864

AM161 MT SI SHELL
Target 742 SW MT SI BLVD
Property NORTH BEND, WA 98045

WA UST U000712416
WA ALLSITES N/A

Site 3 of 4 in cluster AM

Actual: UST:
447 ft.

Focus Map: Name: MT SI SHELL
12 Address: 742 SW MT SI BLVD
City: NORTH BEND
Zip: 98045
Facility ID: 12657451
Site Id: 97659
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.4893164650117
Decimal Longitude: -121.794078643833

Tank Name: 1
Tag Number: A3910
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 08/01/1989
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 03/31/2020
Tank Upgrade Date: 04/01/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Automatic Shutoff (fill pipe)
Tank Material: Steel Clad with Corrosion Resistant Composite
Tank Construction: Single Wall Tank
Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Fiberglass
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MT SI SHELL (Continued)

U000712416

Pipe Second Release Detection: Annual Line Tightness Test (LTT)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Sump

Name: MT SI SHELL
 Address: 742 SW MT SI BLVD
 City: NORTH BEND
 Zip: 98045

Tank Name: 2
 Tag Number: A3910
 Tank Status: Operational
 Tank Status Date: 08/06/1996
 Tank Install Date: 08/01/1989
 Tank Closure Date: Not reported
 Capacity Range: 20,000 to 29,999 Gallons
 Tank Permit Expiration Date: 03/31/2020
 Tank Upgrade Date: 04/01/1998
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Automatic Shutoff (fill pipe)
 Tank Material: Steel Clad with Corrosion Resistant Composite
 Tank Construction: Single Wall Tank
 Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
 Tank Corrosion Protection: Corrosion Resistant
 Tank Manifold: Not reported
 Tank Release Detection: Automatic Tank Gauging
 Tank SFC Type: Not reported
 Pipe Material: Fiberglass
 Pipe Construction: Single Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Annual Line Tightness Test (LTT)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Sump

Name: MT SI SHELL
 Address: 742 SW MT SI BLVD
 City: NORTH BEND
 Zip: 98045

Tank Name: 3
 Tag Number: A3910
 Tank Status: Operational
 Tank Status Date: 08/06/1996
 Tank Install Date: 08/01/1989
 Tank Closure Date: Not reported
 Capacity Range: 20,000 to 29,999 Gallons
 Tank Permit Expiration Date: 03/31/2020
 Tank Upgrade Date: 04/01/1998
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Automatic Shutoff (fill pipe)
 Tank Material: Steel Clad with Corrosion Resistant Composite
 Tank Construction: Single Wall Tank
 Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MT SI SHELL (Continued)

U000712416

Tank Corrosion Protection: Corrosion Resistant
 Tank Manifold: Not reported
 Tank Release Detection: Automatic Tank Gauging
 Tank SFC Type: Not reported
 Pipe Material: Fiberglass
 Pipe Construction: Single Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Annual Line Tightness Test (LTT)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Sump

Name: MT SI SHELL
 Address: 742 SW MT SI BLVD
 City: NORTH BEND
 Zip: 98045

Tank Name: 4
 Tag Number: A3910
 Tank Status: Operational
 Tank Status Date: 08/06/1996
 Tank Install Date: 08/01/1989
 Tank Closure Date: Not reported
 Capacity Range: 10,000 to 19,999 Gallons
 Tank Permit Expiration Date: 03/31/2020
 Tank Upgrade Date: 04/01/1998
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Automatic Shutoff (fill pipe)
 Tank Material: Steel Clad with Corrosion Resistant Composite
 Tank Construction: Single Wall Tank
 Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
 Tank Corrosion Protection: Corrosion Resistant
 Tank Manifold: Not reported
 Tank Release Detection: Automatic Tank Gauging
 Tank SFC Type: Not reported
 Pipe Material: Fiberglass
 Pipe Construction: Single Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Annual Line Tightness Test (LTT)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Sump

ALLSITES:

Name: GEORGE G WYRSCH
 Facility Id: 12657451

Interaction: 26970
 Interaction 1: A
 Interaction 2: UST
 Ecology Program: TOXICS
 Program Data: UST
 Facility Alt.: Mt Si Shell
 Program ID: 97659
 Date Interaction: 1989-08-01 00:00:00

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MT SI SHELL (Continued)

U000712416

Date Interaction 3: Underground Storage Tank
Latitude: 47.489310795000002
Longitude: -121.794063865

AM162 **MOUNT SI TEXACO**
Target **742 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

EDR Hist Auto **1021365309**
N/A

Site 4 of 4 in cluster AM

Actual: EDR Hist Auto
447 ft.

Focus Map:
12

Year:	Name:	Type:
1992	MOUNT SI TEXACO	Gasoline Service Stations
1993	MOUNT SI TEXACO	Gasoline Service Stations
1994	MOUNT SI TEXACO	Gasoline Service Stations
1995	MOUNT SI TEXACO	Gasoline Service Stations
1996	MOUNT SI TEXACO	Gasoline Service Stations
1997	MOUNT SI TEXACO	Gasoline Service Stations
1998	MOUNT SI TEXACO	Gasoline Service Stations
1999	MOUNT SI TEXACO	Gasoline Service Stations
2000	MOUNT SI TEXACO	Gasoline Service Stations
2001	MOUNT SI TEXACO	Gasoline Service Stations
2002	MOUNT SI TEXACO	Gasoline Service Stations
2003	MOUNT SI TEXACO	Gasoline Service Stations
2004	MOUNT SI TEXACO	Gasoline Service Stations
2005	MOUNT SI TEXACO	Gasoline Service Stations, NEC
2006	MOUNT SI TEXACO	Gasoline Service Stations, NEC
2008	MOUNT SI TEXACO	Gasoline Service Stations, NEC
2009	MOUNT SI TEXACO	Gasoline Service Stations, NEC
2010	MOUNT SI TEXACO	Gasoline Service Stations, NEC
2011	MOUNT SI TEXACO	Gasoline Service Stations, NEC
2012	MOUNT SI TEXACO	Gasoline Service Stations, NEC
2013	MOUNT SI TEXACO	Gasoline Service Stations, NEC
2014	MOUNT SI TEXACO	Gasoline Service Stations, NEC

163
Target **902 SE NORTH BEND WAY BATHROOM, KITCHEN,**
Property **NORTH BEND, WA 98045**

WA ASBESTOS **S119172594**
N/A

ASBESTOS:

Actual:	Name:	Not reported
462 ft.	Address:	902 SE NORTH BEND WAY BATHROOM, KITCHEN,
	City,State,Zip:	NORTH BEND, WA 98045
Focus Map:	Facility Type:	House
12	Parent ID:	0
	Form ID:	93854##1346Minor735326
	Notice Date:	12/04/2014
	Start Date:	12/15/2014
	Completion Date:	12/15/2014
	Initial:	1
	Amended:	Not reported
	On Hold:	Not reported
	Off Hold:	Not reported
	Emergency:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119172594

Site Hours Start:	8:00AM
Site Hours End:	4:30PM
Sunday:	Not reported
Monday:	1
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	360 750-1900
Job Site CAS:	Martin Ortiz
Project Form Email:	scarter@minorityac.com
Property Owner Name:	Not reported
Property Owner Agent:	Chuck Kellog
Property Owner Company:	Minority Abatement Contractors (ABCN00001346)
Property Owner Address:	2930 Wetmore Ave
Property Owner City:	Everett
Property Owner State:	WA
Property Owner Zip4:	98201
Property Owner Phone:	360 904-8968
Job Site Room:	Bathroom, kitchen,
Facility Age:	1950s
Facility Size:	1,400
Facility Remodel:	1
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	180
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	1
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	Sink
Quantity Lin Ft:	18
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	1
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119172594

Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	1
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	1
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2014-12-04 11:34:30
Submitter IP Address:	173.11.29.45
Region:	2
UBI:	602147410
Notice type:	Initial
Project Type:	Air cell Pipe Insulation, Other Square Footage, Sheet Vinyl
Supervisor:	Martin Ortiz ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	902 SE NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	Commercial
Parent ID:	0
Form ID:	111468##1317Advan342270
Notice Date:	02/03/2016
Start Date:	02/17/2016
Completion Date:	02/19/2016
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:00 a.m.
Site Hours End:	4:00 PM
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	1
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	360-357-5666
Job Site CAS:	Genaro Magana
Project Form Email:	advanceenvironmental@comcast.net
Property Owner Name:	Not reported
Property Owner Agent:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119172594

Property Owner Company:	Advance Environmental Inc (ABCN00001317)
Property Owner Address:	902 SE North Bend Way
Property Owner City:	North Bend
Property Owner State:	WA
Property Owner Zip4:	98045
Property Owner Phone:	360-357-5666
Job Site Room:	Not reported
Facility Age:	1964
Facility Size:	2688
Facility Remodel:	1
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	950
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	1
Type C Continuous:	Not reported
Type C Pressure:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119172594

Other Resp Pro: Not reported
Other Resp Pro Text: Not reported
Comments: Not reported
Date Time Submitted: 2016-02-03 14:15:19
Submitter IP Address: 73.221.74.245
Region: 2
UBI: 602306184
Notice type: Initial
Project Type: Vinyl Asbestos Tile
Supervisor: Genaro Magana ()
Supervisor Phone: Not reported
Certificate Status: ACTIVE

AN164 MT SI CHEVRON
Target 745 SW MT SI BLVD
Property NORTH BEND, WA 98045

WA UST U000712408
WA ALLSITES N/A
WA Financial Assurance

Site 1 of 3 in cluster AN

Actual:
451 ft.

UST:

Focus Map:
12

Name: MT SI CHEVRON
Address: 745 SW MT SI BLVD
City: NORTH BEND
Zip: 98045
Facility ID: 44752862
Site Id: 97603
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.4889998833953
Decimal Longitude: -121.794621782847

Tank Name: 1
Tag Number: A3909
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1988
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 10/31/2020
Tank Upgrade Date: 04/01/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Fiberglass Reinforced Plastic
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MT SI CHEVRON (Continued)

U000712408

Name: MT SI CHEVRON
Address: 745 SW MT SI BLVD
City: NORTH BEND
Zip: 98045

Tank Name: 2
Tag Number: A3909
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1988
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 10/31/2020
Tank Upgrade Date: 04/01/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Fiberglass Reinforced Plastic
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

Name: MT SI CHEVRON
Address: 745 SW MT SI BLVD
City: NORTH BEND
Zip: 98045

Tank Name: 3
Tag Number: A3909
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1988
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 10/31/2020
Tank Upgrade Date: 04/01/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Fiberglass Reinforced Plastic
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Single Wall Pipe

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MT SI CHEVRON (Continued)

U000712408

Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Sump

Name: MT SI CHEVRON
Address: 745 SW MT SI BLVD
City: NORTH BEND
Zip: 98045

Tank Name: 4
Tag Number: A3909
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1988
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 10/31/2020
Tank Upgrade Date: 04/01/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Automatic Shutoff (fill pipe)
Tank Material: Fiberglass Reinforced Plastic
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Sump

ALLSITES:

Name: G & S SERVICES
Facility Id: 44752862

Interaction: 45342
Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 97603
Date Interaction: 1988-01-01 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.488994214000002
Longitude: -121.794607004

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MT SI CHEVRON (Continued)

U000712408

WA Financial Assurance 1:

Name: MT SI CHEVRON
Address: 745 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 97603
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 12/31/2014
Expiration Date: 12/31/2015
Address 2: Not reported
Policy Number: WA641299-5
Effective Date: 12/31/2014
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0
Retroactive Date: 01/01/2007
Latitude: 47.488999883
Longitude: -121.79462178

Name: MT SI CHEVRON
Address: 745 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 97603
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 12/31/2015
Expiration Date: 12/31/2016
Address 2: Not reported
Policy Number: WA641299-6
Effective Date: 12/31/2015
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0
Retroactive Date: 01/01/2007
Latitude: 47.488999883
Longitude: -121.79462178

Name: MT SI CHEVRON
Address: 745 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 97603
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 12/31/2016
Expiration Date: 12/31/2017
Address 2: Not reported
Policy Number: WA641299-7
Effective Date: 12/31/2016
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0
Retroactive Date: 01/01/2007
Latitude: 47.488999883
Longitude: -121.79462178

Name: MT SI CHEVRON
Address: 745 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 97603
Financial Resp Type: COLONY INSURANCE COMPANY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MT SI CHEVRON (Continued)

U000712408

Inception Date: 12/08/2017
Expiration Date: 12/31/2018
Address 2: Not reported
Policy Number: WA641299-8
Effective Date: 12/08/2017
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0
Retroactive Date: 01/01/2007
Latitude: 47.488999883
Longitude: -121.79462178

Name: MT SI CHEVRON
Address: 745 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 97603
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 12/31/2018
Expiration Date: 12/31/2019
Address 2: Not reported
Policy Number: WA641299-9
Effective Date: 12/31/2018
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0
Retroactive Date: 01/01/2007
Latitude: 47.488999883
Longitude: -121.79462178

Name: MT SI CHEVRON
Address: 745 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 97603
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 12/31/2018
Expiration Date: 12/31/2019
Address 2: Not reported
Policy Number: Wa641299-9
Effective Date: 12/31/2018
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0
Retroactive Date: 01/01/2007
Latitude: 47.488999883
Longitude: -121.79462178

AN165 G & S SERVICES
Target 745 SW MT SI BLVD
Property NORTH BEND, WA 98045

FINDS 1007070560
N/A

Site 2 of 3 in cluster AN

Actual: FINDS:
451 ft. Registry ID: 110015471719
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015471719
12

Environmental Interest/Information System:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G & S SERVICES (Continued)

1007070560

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AN166 **G & S SERVICES INC**
Target **745 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

EDR Hist Auto **1020686497**
N/A

Site 3 of 3 in cluster AN

Actual:
451 ft.

EDR Hist Auto

Focus Map:
12

Year:	Name:	Type:
1988	G & S SERVICES INC	Gasoline Service Stations
1989	G & S SERVICES INC	Gasoline Service Stations, NEC
1990	G & S SERVICES INC	Gasoline Service Stations, NEC
1991	MT SI CHEVRON & DELI	Gasoline Service Stations, NEC
1992	MT SI CHEVRON & DELI	Gasoline Service Stations, NEC
1993	MT SI CHEVRON & DELI	Gasoline Service Stations, NEC
1994	MT SI CHEVRON & DELI	Gasoline Service Stations, NEC
1995	MT SI CHEVRON & DELI	Gasoline Service Stations, NEC
1996	MT SI CHEVRON & DELI	Gasoline Service Stations, NEC
1997	MT SI CHEVRON & DELI	Gasoline Service Stations, NEC
1998	MT SI CHEVRON & DELI	Gasoline Service Stations, NEC
1999	MT SI CHEVRON & DELI	Gasoline Service Stations, NEC
2000	G N S SERVICES	Gasoline Service Stations, NEC
2001	G N S SERVICES	Gasoline Service Stations, NEC
2001	G & S SERVICES INC	Gasoline Service Stations, NEC
2002	G N S SERVICES	Gasoline Service Stations, NEC
2002	G & S SERVICES INC	Gasoline Service Stations, NEC
2003	G & S SERVICES INC	Gasoline Service Stations, NEC
2003	G N S SERVICES	Gasoline Service Stations, NEC
2004	G & S SERVICES INC	Gasoline Service Stations, NEC
2004	G N S SERVICES	Gasoline Service Stations, NEC
2005	G & S SERVICES INC	Gasoline Service Stations, NEC
2005	G N S SERVICES	Gasoline Service Stations, NEC
2006	G N S SERVICES	Gasoline Service Stations, NEC
2006	G & S SERVICES INC	Gasoline Service Stations, NEC
2007	G & S SERVICES INC	Gasoline Service Stations, NEC
2007	G N S SERVICES	Gasoline Service Stations, NEC
2008	G & S SERVICES INC	Gasoline Service Stations, NEC
2008	G N S SERVICES	Gasoline Service Stations, NEC
2009	G & S SERVICES INC	Gasoline Service Stations, NEC
2009	G N S SERVICES	Gasoline Service Stations, NEC
2010	G & S SERVICES INC	Gasoline Service Stations, NEC
2010	G N S SERVICES	Gasoline Service Stations, NEC
2011	G & S SERVICES INC	Gasoline Service Stations, NEC
2011	G N S SERVICES	Gasoline Service Stations, NEC
2012	G N S SERVICES	Gasoline Service Stations, NEC
2012	G & S SERVICES INC	Gasoline Service Stations, NEC
2013	G & S SERVICES INC	Gasoline Service Stations, NEC
2013	G N S SERVICES	Gasoline Service Stations, NEC
2014	G & S SERVICES INC	Gasoline Service Stations, NEC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AO167 **SCHUCKS AUTO SUPPLY NORTH BEND**
Target **400 SW MOUNT SI BLVD**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S109824720**
N/A

Site 1 of 2 in cluster AO

Actual: **447 ft.** **ALLSITES:**
Focus Map: **12** **Name:** **SCHUCKS AUTO SUPPLY NORTH BEND**
Facility Id: **20294**

Interaction: **78195**
Interaction 1: **I**
Interaction 2: **LSC**
Ecology Program: **HAZWASTE**
Program Data: **LSC**
Facility Alt.: **Schucks Auto Supply North Bend**
Program ID: **Not reported**
Date Interaction: **2009-04-09 00:00:00**
Date Interaction 3: **Local Source Cntrl 7/09-3**
Latitude: **47.486508270999998**
Longitude: **-121.79449757099999**

AO168 **SCHUCKS AUTO SUPPLY NORTH BEND**
Target **400 SW MOUNT SI BLVD**
Property **NORTH BEND, WA 98045**

FINDS **1012132497**
N/A

Site 2 of 2 in cluster AO

Actual: **447 ft.** **FINDS:**
Focus Map: **12** **Registry ID:** **110039225415**
Facility URL: **http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110039225415**

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AP169 **WA DOT CAMP MASON UST**
Target **SR I90 MP 42.29**
Property **NORTH BEND, WA 98045**

FINDS **1016213084**
ECHO **N/A**

Site 1 of 2 in cluster AP

Actual: **462 ft.** **FINDS:**
Focus Map: **12** **Registry ID:** **110006138928**
Facility URL: **http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110006138928**

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WA DOT CAMP MASON UST (Continued)

1016213084

facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1016213084
Registry ID: 110006138928
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110006138928>

AP170 WA DOT CAMP MASON UST
Target SR I90 MP 42.29
Property NORTH BEND, WA 98045

WA ALLSITES 1000394527
RCRA NonGen / NLR WAD988467767

Site 2 of 2 in cluster AP

Actual:
463 ft.

ALLSITES:

Focus Map:
12

Name: WA DOT CAMP MASON UST
Facility Id: 66991352

Interaction: 58114
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAD988467767
Date Interaction: 1989-07-06 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.488484329999999
Longitude: -121.797875221

Interaction: 58115
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Not reported
Program ID: CRK000047740
Date Interaction: 1998-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.488484329999999
Longitude: -121.797875221

RCRA NonGen / NLR:

Date form received by agency: 1989-07-06 00:00:00.0
Facility name: WA DOT CAMP MASON UST
Facility address: SR I90 MP 42.29

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WA DOT CAMP MASON UST (Continued)

1000394527

NORTH BEND, WA 98045
EPA ID: WAD988467767
Mailing address: TRANSPORTATION BLDG MS KF 01
OLYMPIA, WA 98504
Contact: Not reported
Contact address: SR I90 MP 42.29
NORTH BEND, WA 98045
Contact country: Not reported
Contact telephone: 000-000-0000
Contact email: Not reported
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: SEE PAPER COPY
Owner/operator address: SR I90 MP 42.29
NORTH BEND, WA 98045
Owner/operator country: Not reported
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: WA DOT FACILITIES HAZMAT
Owner/operator address: TRANSPORTATION BLDG
OLYMPIA, WA 98504
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: WA DOT FACILITIES HAZMAT
Owner/operator address: TRANSPORTATION BLDG
OLYMPIA, WA 98504
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 1996-05-02 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: WA DOT CAMP MASON UST
Owner/operator address: SR I90 MP 42.29
NORTH BEND, WA 98045

Map ID
Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WA DOT CAMP MASON UST (Continued)

1000394527

Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: WA DOT CAMP MASON UST
Owner/operator address: SR I90 MP 42.29
NORTH BEND, WA 98045

Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 1989-07-06 00:00:00.0
Site name: WA DOT CAMP MASON UST
Classification: Not a generator, verified

Date form received by agency: 1989-07-06 00:00:00.0
Site name: WA DOT CAMP MASON UST
Classification: Not a generator, verified

Violation Status: No violations found

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQ171 **FIRE STATION 87**
Target **500 MALONEY GROVE AVE SE**
Property **NORTH BEND, WA 98045**

FINDS **1015954737**
ECHO **N/A**

Site 1 of 5 in cluster AQ

Actual: **463 ft.** **FINDS:**
Focus Map: **12** **Registry ID:** 110046591540
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110046591540

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1015954737
Registry ID: 110046591540
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110046591540>

AQ172 **FIRE STATION 87**
Target **500 MALONEY GROVE AVE SE**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S111769484**
N/A

Site 2 of 5 in cluster AQ

Actual: **463 ft.** **ALLSITES:**
Focus Map: **12** **Name:** FIRE STATION 87
Facility Id: 10951
Interaction: 101360
Interaction 1: I
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Fire Station 87
Program ID: WAR125719
Date Interaction: 2012-04-11 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.487976875000001
Longitude: -121.77405211599999

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AR173 **ANDRES DRYCLEANER**
Target **458 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

EDR Hist Cleaner **1019928706**
 N/A

Site 1 of 3 in cluster AR

Actual: EDR Hist Cleaner
444 ft.

Focus Map:
12

Year:	Name:	Type:
1997	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
1998	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
1999	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2000	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2001	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2002	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2003	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2004	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2005	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2006	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2007	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2008	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2009	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2010	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2011	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2012	MICHAELS FINE DRY CLEANING	Drycleaning Plants, Except Rugs
2012	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2013	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs
2013	MICHAELS FINE DRY CLEANING	Drycleaning Plants, Except Rugs
2014	MICHAELS FINE DRY CLEANING	Drycleaning Plants, Except Rugs
2014	ANDRES DRYCLEANER	Drycleaning Plants, Except Rugs

AR174 **MICHAELS FINE DRY CLEANING NORTH BEND**
Target **458 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S110276099**
 N/A

Site 2 of 3 in cluster AR

Actual: ALLSITES:
444 ft.

Focus Map:
12

Name:	MICHAELS FINE DRY CLEANING NORTH BEND
Facility Id:	17806
Interaction:	92142
Interaction 1:	I
Interaction 2:	LSC
Ecology Program:	HAZWASTE
Program Data:	LSC
Facility Alt.:	Michaels Fine Dry Cleaning North Bend
Program ID:	Not reported
Date Interaction:	2009-03-03 00:00:00
Date Interaction 3:	Local Source Cntrl 7/09-3
Latitude:	47.486715330000003
Longitude:	-121.79125022300001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AR175 **MICHAELS FINE DRY CLEANING NORTH BEND**
Target **458 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

FINDS **1014851805**
 N/A

Site 3 of 3 in cluster AR

Actual: **FINDS:**
444 ft. Registry ID: 110040759186
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110040759186
12

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AQ176 **SI VIEW ESTATES 28 LOT PLAT**
Target **1045 MALONEY GROVE AVE SE**
Property **NORTH BEND, WA 98045**

FINDS **1016403072**
ECHO **N/A**

Site 3 of 5 in cluster AQ

Actual: **FINDS:**
463 ft. Registry ID: 110055371119
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110055371119
12

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1016403072
Registry ID: 110055371119
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110055371119>

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQ177
Target
Property

SI VIEW ESTATES 28 LOT PLAT
1045 MALONEY GROVE AVE SE
NORTH BEND, WA 98045

WA ALLSITES **S113831426**
N/A

Site 4 of 5 in cluster AQ

Actual:
463 ft.
Focus Map:
12

ALLSITES:

Name:	SI VIEW ESTATES 28 LOT PLAT
Facility Id:	7578
Interaction:	105295
Interaction 1:	A
Interaction 2:	CONSTSWGP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	Si View Estates 28 Lot Plat
Program ID:	WAR127133
Date Interaction:	2013-05-13 00:00:00
Date Interaction 3:	Construction SW GP
Latitude:	47.483385495
Longitude:	-121.77620766699999
Interaction:	109863
Interaction 1:	A
Interaction 2:	CONSTSWGP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	Si View Estates 28 Lot Plat - A
Program ID:	WAR302399
Date Interaction:	2014-10-02 00:00:00
Date Interaction 3:	Construction SW GP
Latitude:	47.483385495
Longitude:	-121.77620766699999

178
Target
Property

1525 ROCK CREEK RIDGE BLVD SW
NORTH BEND, WA

WA SPILLS **S113888444**
N/A

SPILLS:

Actual:
479 ft.
Focus Map:
11

Name:	Not reported
Address:	1525 ROCK CREEK RIDGE BLVD SW
City,State,Zip:	NORTH BEND, WA
Facility ID:	643980
Medium:	SURFACE WATER-FRESH
Material Desc:	PETROLEUM - MOTOR OIL
Material Qty:	Not reported
Material Units:	GALLON
Date Received:	09/16/2013
Contact Name:	UNKNOWN
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S113888444

Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

AS179 **NORTH BEND AUTO PARTS INC**
Target **1120 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

RCRA-VSQQ **1001969718**
WA ALLSITES **WAH000010827**
FINDS
ECHO
WA MANIFEST

Site 1 of 7 in cluster AS

Actual:
466 ft.

Focus Map:
13

RCRA-VSQQ:
Date form received by agency: 2018-01-12 00:00:00.0
Facility name: NORTH BEND AUTO PARTS INC
Facility address: 1120 E NORTH BEND WAY
NORTH BEND, WA 98045
EPA ID: WAH000010827
Mailing address: PO BOX 389
NORTH BEND, WA 98045
Contact: STEVEN MCCONKEY
Contact address: PO BOX 389
NORTH BEND, WA 98045
Contact country: US
Contact telephone: 425-888-1112
Contact email: NBNAPA@COMCAST.NET
EPA Region: 10
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: NORTH BEND AUTO PARTS INC
Owner/operator address: 1119 BROWN ROAD
ELLENSBURG, WA 98926
Owner/operator country: US
Owner/operator telephone: 509-962-9595
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NORTH BEND AUTO PARTS INC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Owner/operator address: PO BOX 389
NORTH BEND, WA 98045

Owner/operator country: US
Owner/operator telephone: 425-888-1112
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NORTH BEND AUTO PARTS INC
Owner/operator address: 1119 BROWN ROAD
ELLENSBURG, WA 98926

Owner/operator country: US
Owner/operator telephone: 509-962-9595
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2000-02-28 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2017-02-14 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2016-02-16 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2015-01-08 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2014-01-16 00:00:00.0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2013-01-08 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2012-02-13 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2012-02-13 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2011-01-11 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2011-01-11 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2010-01-05 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2010-01-05 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2009-01-09 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2008-01-10 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2007-12-31 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Not a generator, verified

Date form received by agency: 2007-03-08 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2007-03-08 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2007-03-08 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC
Classification: Not a generator, verified

Date form received by agency: 2006-04-06 00:00:00.0
Site name: NORTH BEND AUTO PARTS INC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2005-12-31 00:00:00.0

Site name: NORTH BEND AUTO PARTS INC

Classification: Not a generator, verified

Date form received by agency: 2005-01-25 00:00:00.0

Site name: NORTH BEND AUTO PARTS INC

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2004-01-07 00:00:00.0

Site name: NORTH BEND AUTO PARTS INC

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2003-12-31 00:00:00.0

Site name: NORTH BEND AUTO PARTS INC

Classification: Not a generator, verified

Date form received by agency: 2003-01-23 00:00:00.0

Site name: NORTH BEND AUTO PARTS INC

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2002-01-14 00:00:00.0

Site name: NORTH BEND AUTO PARTS INC

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2001-01-17 00:00:00.0

Site name: NORTH BEND AUTO PARTS INC

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2000-02-28 00:00:00.0

Site name: NORTH BEND AUTO PARTS INC

Classification: Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

. Waste code: D027
. Waste name: 1,4-DICHLOROBENZENE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: D040
. Waste name: TRICHLORETHYLENE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Violation Status: No violations found

ALLSITES:

Name: NORTH BEND AUTO PARTS INC
Facility Id: 25439352

Interaction: 34471
Interaction 1: A
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: North Bend Auto Parts Inc
Program ID: WAH000010827
Date Interaction: 2000-02-28 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.477846172
Longitude: -121.7515386869999

FINDS:

Registry ID: 110005397070
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110005397070

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1001969718
Registry ID: 110005397070
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110005397070>

WA MANIFEST:

Name: NORTH BEND AUTO PARTS INC
Address: 1120 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility Address 2: Not reported
Facility ID: 25439352
EPA ID: WAH000010827
NAICS: 441310
State Waste Code Desc: Not reported
Federal Waste Code Desc: D006,D008,D018,D027,D039,D040
Form Comm: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000969
Business Type:	Automotive Parts
Mail Name:	North Bend Auto Parts Inc
Mailing Address:	PO Box 389
Mailing City,State,Zip:	NORTH BEND, WA 98045
Legal Organization Name:	North Bend Auto Parts Inc
Legal Organization Type:	Private
Legal Contact:	Richard M McConkey
Legal Address:	1119 BROWN ROAD
Legal Address 2:	Not reported
Legal City,State,Zip:	ELLENSBURG, WA 98926
Legal Phone Number:	509-962-9595
Legal Effective Date:	02/28/2000
Land Organization Name:	North Bend Auto Parts Inc
Land Organization Type:	Private
Land Contact:	Richard M McConkey
Land Address:	1119 BROWN ROAD
Land City,State,Zip:	ELLENSBURG, WA 98926
Land Phone Number:	509-962-9595
Operator Organization Name:	North Bend Auto Parts Inc
Operator Organization Type:	Private
Operator:	Steven McConkey
Operator Address:	PO Box 389
Operator Address 2:	Not reported
Operator City,State,Zip:	NORTH BEND, WA 98045
Operator Phone Number:	(425)888-1112
Operator Effective Date:	02/28/2000
Site Contact:	Steven McConkey
Site Contact Address:	PO Box 389
Contact City,State,Zip:	NORTH BEND, WA 98045
Site Contact Phone Number:	(425)888-1112
Site Contact Email:	NBNAPA@COMCAST.NET
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	NORTH BEND AUTO PARTS INC
Address:	1120 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	25439352
EPA ID:	WAH000010827
NAICS:	441310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D008,D006,D018,D027,D039,D040
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000969
Business Type:	Not reported
Mail Name:	Not reported
Mailing Address:	PO Box 389
Mailing City,State,Zip:	NORTH BEND, WA 98045
Legal Organization Name:	North Bend Auto Parts Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	1119 BROWN ROAD
Legal Address 2:	Not reported
Legal City,State,Zip:	ELLENSBURG, WA 98926
Legal Phone Number:	(509)962-9595
Legal Effective Date:	02/28/2000
Land Organization Name:	RICHARD MCCONKEY
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	1119 BROWN ROAD
Land City,State,Zip:	ELLENSBURG, WA 98926

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Land Phone Number:	(509)962-9595
Operator Organization Name:	North Bend Auto Parts Inc
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 389
Operator Address 2:	Not reported
Operator City,State,Zip:	NORTH BEND, WA 98045
Operator Phone Number:	(425)888-1112
Operator Effective Date:	02/28/2000
Site Contact:	Not reported
Site Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Site Contact Phone Number:	Not reported
Site Contact Email:	Not reported
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	NORTH BEND AUTO PARTS INC
Address:	1120 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	25439352
EPA ID:	WAH000010827
NAICS:	441310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D006,D008,D018,D027,D039,D040
Form Comm:	Not reported
Data Year:	2016
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000969
Business Type:	Automotive Parts
Mail Name:	North Bend Auto Parts Inc
Mailing Address:	PO Box 389
Mailing City,State,Zip:	NORTH BEND, WA 98045
Legal Organization Name:	North Bend Auto Parts Inc
Legal Organization Type:	Private
Legal Contact:	Richard M McConkey
Legal Address:	1119 BROWN ROAD
Legal Address 2:	Not reported
Legal City,State,Zip:	ELLENSBURG, WA 98926
Legal Phone Number:	509-962-9595
Legal Effective Date:	02/28/2000
Land Organization Name:	North Bend Auto Parts Inc
Land Organization Type:	Private
Land Contact:	Richard M McConkey
Land Address:	1119 BROWN ROAD
Land City,State,Zip:	ELLENSBURG, WA 98926
Land Phone Number:	509-962-9595
Operator Organization Name:	North Bend Auto Parts Inc
Operator Organization Type:	Private
Operator:	Steven McConkey
Operator Address:	PO Box 389
Operator Address 2:	Not reported
Operator City,State,Zip:	NORTH BEND, WA 98045
Operator Phone Number:	(425)888-1112
Operator Effective Date:	02/28/2000
Site Contact:	Steven McConkey
Site Contact Address:	PO Box 389
Contact City,State,Zip:	NORTH BEND, WA 98045
Site Contact Phone Number:	(425)888-1112
Site Contact Email:	NBNAPA@COMCAST.NET
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	NORTH BEND AUTO PARTS INC
Address:	1120 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Facility ID:	25439352
EPA ID:	WAH000010827
NAICS:	441310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D008,D018,D027,D039,D040
Form Comm:	Not reported
Data Year:	2015
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000969
Business Type:	Automotive Parts
Mail Name:	North Bend Auto Parts Inc
Mailing Address:	PO Box 389
Mailing City,State,Zip:	NORTH BEND, WA 98045
Legal Organization Name:	North Bend Auto Parts Inc
Legal Organization Type:	Private
Legal Contact:	Richard M McConkey
Legal Address:	1119 BROWN ROAD
Legal Address 2:	Not reported
Legal City,State,Zip:	ELLENSBURG, WA 98926
Legal Phone Number:	509-962-9595
Legal Effective Date:	02/28/2000
Land Organization Name:	North Bend Auto Parts Inc
Land Organization Type:	Private
Land Contact:	Richard M McConkey
Land Address:	1119 BROWN ROAD
Land City,State,Zip:	ELLENSBURG, WA 98926
Land Phone Number:	509-962-9595
Operator Organization Name:	North Bend Auto Parts Inc
Operator Organization Type:	Private
Operator:	Steven McConkey
Operator Address:	PO Box 389
Operator Address 2:	Not reported
Operator City,State,Zip:	NORTH BEND, WA 98045
Operator Phone Number:	(425)888-1112
Operator Effective Date:	02/28/2000
Site Contact:	Steven McConkey
Site Contact Address:	PO Box 389
Contact City,State,Zip:	NORTH BEND, WA 98045
Site Contact Phone Number:	(425)888-1112
Site Contact Email:	NBNAPA@COMCAST.NET
Gen Status Code:	SQG

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	NORTH BEND AUTO PARTS INC
Address:	1120 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	25439352
EPA ID:	WAH000010827
NAICS:	441310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D006,D008,D018,D027,D039,D040
Form Comm:	Not reported
Data Year:	2014
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000969
Business Type:	Automotive Parts
Mail Name:	North Bend Auto Parts Inc
Mailing Address:	PO Box 389
Mailing City,State,Zip:	NORTH BEND, WA 98045
Legal Organization Name:	North Bend Auto Parts Inc
Legal Organization Type:	Private
Legal Contact:	Richard M McConkey
Legal Address:	1119 BROWN ROAD
Legal Address 2:	Not reported
Legal City,State,Zip:	ELLENSBURG, WA 98926
Legal Phone Number:	509-962-9595

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Legal Effective Date:	02/28/2000
Land Organization Name:	North Bend Auto Parts Inc
Land Organization Type:	Private
Land Contact:	Richard M McConkey
Land Address:	1119 BROWN ROAD
Land City,State,Zip:	ELLENSBURG, WA 98926
Land Phone Number:	509-962-9595
Operator Organization Name:	North Bend Auto Parts Inc
Operator Organization Type:	Private
Operator:	Steven McConkey
Operator Address:	PO Box 389
Operator Address 2:	Not reported
Operator City,State,Zip:	NORTH BEND, WA 98045
Operator Phone Number:	(425)888-1112
Operator Effective Date:	02/28/2000
Site Contact:	Steven McConkey
Site Contact Address:	PO Box 389
Contact City,State,Zip:	NORTH BEND, WA 98045
Site Contact Phone Number:	(425)888-1112
Site Contact Email:	NBNAPA@COMCAST.NET
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	NORTH BEND AUTO PARTS INC
Address:	1120 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	25439352
EPA ID:	WAH000010827
NAICS:	441310
State Waste Code Desc:	WAH000010827
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2013
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000969
Business Type:	Automotive Parts
Mail Name:	North Bend Auto Parts Inc
Mailing Address:	PO Box 389
Mailing City,State,Zip:	NORTH BEND, WA 98045
Legal Organization Name:	North Bend Auto Parts Inc
Legal Organization Type:	Private
Legal Contact:	Richard M McConkey
Legal Address:	1119 BROWN ROAD
Legal Address 2:	Not reported
Legal City,State,Zip:	ELLENSBURG, WA 98926
Legal Phone Number:	509-962-9595
Legal Effective Date:	02/28/2000
Land Organization Name:	North Bend Auto Parts Inc
Land Organization Type:	Private
Land Contact:	Richard M McConkey
Land Address:	1119 BROWN ROAD
Land City,State,Zip:	ELLENSBURG, WA 98926
Land Phone Number:	509-962-9595
Operator Organization Name:	North Bend Auto Parts Inc
Operator Organization Type:	Private
Operator:	Steven McConkey
Operator Address:	PO Box 389
Operator Address 2:	Not reported
Operator City,State,Zip:	NORTH BEND, WA 98045
Operator Phone Number:	(425)888-1112
Operator Effective Date:	02/28/2000
Site Contact:	Steven McConkey
Site Contact Address:	PO Box 389
Contact City,State,Zip:	NORTH BEND, WA 98045
Site Contact Phone Number:	(425)888-1112
Site Contact Email:	NBNAPA@COMCAST.NET
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Site Contact Address 2:	Not reported
Name:	NORTH BEND AUTO PARTS INC
Address:	1120 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	25439352
EPA ID:	WAH000010827
NAICS:	441310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2012
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000969
Business Type:	Automotive Parts
Mail Name:	North Bend Auto Parts Inc
Mailing Address:	PO Box 389
Mailing City,State,Zip:	NORTH BEND, WA 98045
Legal Organization Name:	North Bend Auto Parts Inc
Legal Organization Type:	Private
Legal Contact:	Richard M McConkey
Legal Address:	1119 BROWN ROAD
Legal Address 2:	Not reported
Legal City,State,Zip:	ELLENSBURG, WA 98926
Legal Phone Number:	509-962-9595
Legal Effective Date:	02/28/2000
Land Organization Name:	North Bend Auto Parts Inc
Land Organization Type:	Private
Land Contact:	Richard M McConkey
Land Address:	1119 BROWN ROAD
Land City,State,Zip:	ELLENSBURG, WA 98926
Land Phone Number:	509-962-9595
Operator Organization Name:	North Bend Auto Parts Inc
Operator Organization Type:	Private
Operator:	Steven McConkey
Operator Address:	PO Box 389
Operator Address 2:	Not reported
Operator City,State,Zip:	NORTH BEND, WA 98045
Operator Phone Number:	(425)888-1112
Operator Effective Date:	02/28/2000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Site Contact:	Steven McConkey
Site Contact Address:	PO Box 389
Contact City,State,Zip:	NORTH BEND, WA 98045
Site Contact Phone Number:	(425)888-1112
Site Contact Email:	NBNAPA@COMCAST.NET
Gen Status Code:	SQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	NORTH BEND AUTO PARTS INC
Address:	1120 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	25439352
EPA ID:	WAH000010827
NAICS:	441310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2011
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000969
Business Type:	Automotive Parts
Mail Name:	North Bend Auto Parts Inc
Mailing Address:	PO Box 389
Mailing City,State,Zip:	NORTH BEND, WA 98045
Legal Organization Name:	North Bend Auto Parts Inc

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Legal Organization Type:	Private
Legal Contact:	Richard M McConkey
Legal Address:	1119 BROWN ROAD
Legal Address 2:	Not reported
Legal City,State,Zip:	ELLENSBURG, WA 98926
Legal Phone Number:	509-962-9595
Legal Effective Date:	02/28/2000
Land Organization Name:	North Bend Auto Parts Inc
Land Organization Type:	Private
Land Contact:	Richard M McConkey
Land Address:	1119 BROWN ROAD
Land City,State,Zip:	ELLENSBURG, WA 98926
Land Phone Number:	509-962-9595
Operator Organization Name:	North Bend Auto Parts Inc
Operator Organization Type:	Private
Operator:	Steven McConkey
Operator Address:	PO Box 389
Operator Address 2:	Not reported
Operator City,State,Zip:	NORTH BEND, WA 98045
Operator Phone Number:	(425)888-1112
Operator Effective Date:	02/28/2000
Site Contact:	Steven McConkey
Site Contact Address:	PO Box 389
Contact City,State,Zip:	NORTH BEND, WA 98045
Site Contact Phone Number:	(425)888-1112
Site Contact Email:	NBNAPA@COMCAST.NET
Gen Status Code:	SQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	NORTH BEND AUTO PARTS INC
Address:	1120 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	25439352
EPA ID:	WAH000010827
NAICS:	441310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2010
Permit by Rule:	False
Mailing Address 2:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000969
Business Type:	Automotive Parts
Mail Name:	North Bend Auto Parts Inc
Mailing Address:	PO Box 389
Mailing City,State,Zip:	NORTH BEND, WA 98045
Legal Organization Name:	North Bend Auto Parts Inc
Legal Organization Type:	Private
Legal Contact:	Richard M McConkey
Legal Address:	1119 BROWN ROAD
Legal Address 2:	Not reported
Legal City,State,Zip:	ELLENSBURG, WA 98926
Legal Phone Number:	509-962-9595
Legal Effective Date:	02/28/2000
Land Organization Name:	North Bend Auto Parts Inc
Land Organization Type:	Private
Land Contact:	Richard M McConkey
Land Address:	1119 BROWN ROAD
Land City,State,Zip:	ELLENSBURG, WA 98926
Land Phone Number:	509-962-9595
Operator Organization Name:	North Bend Auto Parts Inc
Operator Organization Type:	Private
Operator:	Steven McConkey
Operator Address:	PO Box 389
Operator Address 2:	Not reported
Operator City,State,Zip:	NORTH BEND, WA 98045
Operator Phone Number:	(425)888-1112
Operator Effective Date:	02/28/2000
Site Contact:	Steven McConkey
Site Contact Address:	PO Box 389
Contact City,State,Zip:	NORTH BEND, WA 98045
Site Contact Phone Number:	(425)888-1112
Site Contact Email:	NBNAPA@COMCAST.NET
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	NORTH BEND AUTO PARTS INC
Address:	1120 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	25439352
EPA ID:	WAH000010827
NAICS:	441310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2009
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000969
Business Type:	Automotive Parts
Mail Name:	North Bend Auto Parts Inc
Mailing Address:	PO Box 389
Mailing City,State,Zip:	NORTH BEND, WA 98045
Legal Organization Name:	North Bend Auto Parts Inc
Legal Organization Type:	Private
Legal Contact:	Richard M McConkey
Legal Address:	1119 BROWN ROAD
Legal Address 2:	Not reported
Legal City,State,Zip:	ELLENSBURG, WA 98926
Legal Phone Number:	509-962-9595
Legal Effective Date:	02/28/2000
Land Organization Name:	North Bend Auto Parts Inc
Land Organization Type:	Private
Land Contact:	Richard M McConkey
Land Address:	1119 BROWN ROAD
Land City,State,Zip:	ELLENSBURG, WA 98926
Land Phone Number:	509-962-9595
Operator Organization Name:	North Bend Auto Parts Inc
Operator Organization Type:	Private

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND AUTO PARTS INC (Continued)

1001969718

Operator:	Steven McConkey
Operator Address:	PO Box 389
Operator Address 2:	Not reported
Operator City,State,Zip:	NORTH BEND, WA 98045
Operator Phone Number:	(425)888-1112
Operator Effective Date:	02/28/2000
Site Contact:	Steven McConkey
Site Contact Address:	PO Box 389
Contact City,State,Zip:	NORTH BEND, WA 98045
Site Contact Phone Number:	(425)888-1112
Site Contact Email:	NBNAPA@COMCAST.NET
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

[Click this hyperlink](#) while viewing on your computer to access
1 additional WA MANIFEST: record(s) in the EDR Site Report.

AQ180
Target
Property

910 MALONEY GROVE AVE SE
NORTH BEND, WA

WA ASBESTOS **S125607498**
N/A

Site 5 of 5 in cluster AQ

Actual:
463 ft.

Focus Map:
12

ASBESTOS:	
Name:	Not reported
Address:	910 MALONEY GROVE AVE SE
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	150388#494544782
Notice Date:	10/10/2019
Start Date:	10/29/2019
Completion Date:	10/31/2019
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125607498

Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	AFFORDABLE ENVIRONMENTAL, INC (MOUNTLAKE TERRACE) (ABCN00001427)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125607498

MANUALMETHODS : Not reported
Other CM1: Not reported
Other CM1 Text: Not reported
Other CM2: Not reported
Other CM2 Text: Not reported
Half Mask APR: Not reported
Full Face APR: Not reported
PAPR: Not reported
Type C Continuous: Not reported
Type C Pressure: Not reported
Other Resp Pro: Not reported
Other Resp Pro Text: Not reported
Comments: Not reported
Date Time Submitted: Not reported
Submitter IP Address: Not reported
Region: 2
UBI: 602577245
Notice type: Initial
Project Type: Popcorn Ceiling, Sheet Vinyl
Supervisor: Anthony Chase (ABAS00008156) ACTIVE
Supervisor Phone: Not reported
Certificate Status: ACTIVE

AT181 KING CNTY DOT MOUNT SI BRIDGE
Target 43600 MOUNT SI RD
Property NORTH BEND, WA 98045

WA ALLSITES 1011904951
FINDS N/A
ECHO
WA MANIFEST

Site 1 of 2 in cluster AT

Actual:
504 ft.
Focus Map:
13

ALLSITES:
Name: KING CNTY DOT MOUNT SI BRIDGE
Facility Id: 7159756
Interaction: 20227
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: KING CNTY DOT MOUNT SI BRIDGE
Program ID: WAH000033348
Date Interaction: 2008-07-30 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.487432325999997
Longitude: -121.757792228

FINDS:

Registry ID: 110037223000
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110037223000

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT MOUNT SI BRIDGE (Continued)

1011904951

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1011904951
Registry ID: 110037223000
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110037223000>

WA MANIFEST:

Name:	KING CNTY DOT MOUNT SI BRIDGE
Address:	43600 MOUNT SI RD
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	7159756
EPA ID:	WAH000033348
NAICS:	237310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2009
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578037394
Business Type:	County Gov Rd & Bridge
Mail Name:	King County DOT Road Service Division
Mailing Address:	201 S Jackson St KSC TR 0231
Mailing City,State,Zip:	Seattle, WA 98104-3856
Legal Organization Name:	King County DOT Road Service Division
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	201 S Jackson St KSC TR 0231
Legal Address 2:	Not reported
Legal City,State,Zip:	Seattle, WA 98104-3856
Legal Phone Number:	(206)296-0267

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT MOUNT SI BRIDGE (Continued)

1011904951

Legal Effective Date:	Not reported
Land Organization Name:	King County DOT Road Service Division
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	201 S Jackson St KSC TR 0231
Land City,State,Zip:	Seattle, WA 98104-3856
Land Phone Number:	(206)296-0267
Operator Organization Name:	King County DOT Road Service Division
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	201 S Jackson St KSC TR 0231
Operator Address 2:	Not reported
Operator City,State,Zip:	Seattle, WA 98104-3856
Operator Phone Number:	(206)296-0267
Operator Effective Date:	Not reported
Site Contact:	Jeff McCarthy
Site Contact Address:	201 S Jackson St KSC TR 0231
Contact City,State,Zip:	Seattle, WA 98104-3856
Site Contact Phone Number:	(206)423-1086
Site Contact Email:	jeff.mccarthy@kingcounty.gov
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	KING CNTY DOT MOUNT SI BRIDGE
Address:	43600 MOUNT SI RD
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	7159756
EPA ID:	WAH000033348
NAICS:	237310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D008
Form Comm:	Not reported
Data Year:	2008
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT MOUNT SI BRIDGE (Continued)

1011904951

Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578037394
Business Type:	County Gov Rd & Bridge
Mail Name:	King County DOT Road Service Division
Mailing Address:	201 S Jackson St KSC TR 0231
Mailing City,State,Zip:	Seattle, WA 98104-3856
Legal Organization Name:	King County DOT Road Service Division
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	201 S Jackson St KSC TR 0231
Legal Address 2:	Not reported
Legal City,State,Zip:	Seattle, WA 98104-3856
Legal Phone Number:	(206)296-0267
Legal Effective Date:	Not reported
Land Organization Name:	King County DOT Road Service Division
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	201 S Jackson St KSC TR 0231
Land City,State,Zip:	Seattle, WA 98104-3856
Land Phone Number:	(206)296-0267
Operator Organization Name:	King County DOT Road Service Division
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	201 S Jackson St KSC TR 0231
Operator Address 2:	Not reported
Operator City,State,Zip:	Seattle, WA 98104-3856
Operator Phone Number:	(206)296-0267
Operator Effective Date:	Not reported
Site Contact:	Jeff McCarthy
Site Contact Address:	201 S Jackson St KSC TR 0231
Contact City,State,Zip:	Seattle, WA 98104-3856
Site Contact Phone Number:	(206)423-1086
Site Contact Email:	jeff.mccarthy@kingcounty.gov
Gen Status Code:	LQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	True
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT MOUNT SI BRIDGE (Continued)

1011904951

Site Contact Address 2:	Not reported
Waste Stream Generated:	
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W319
Description:	Lead Based Paint Chips with dirt, gravel, visqueen and asphalt
CORB Sequence Number:	117167
Sequence Number:	2000043
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quantity:	7000
Quantity Unit:	LB
Kilograms Quantity:	3175.2000546134414
Density Number:	0
Density Quantity:	Not reported
Shipments Send:	
CORB Waste Sequence Number:	117167
Waste Sequence Number:	2000043
Sequence Number:	952063
Shipment Date:	10/7/2008
Mainfest Document ID:	002261639
Reported Quantity:	7000
Unit of Measure:	LB
Kilograms Quantity:	3175.20005461344
Receiving EPAID:	IDD073114654
Waste Stream Off Site Mgmt:	
Waste CORB Sequence Number:	117167
Waste Sequence Number:	2000043
Sequence Number:	486203
Received EPAID:	IDD073114654
Managed Quantity:	7000
Kilogram Quantity:	3175.2000546134414
Recycled Percentage:	0
Waste Management System Code:	H132
Waste Stream Comments:	
CORB Waste Sequence Number:	117167
Comments:	Lead based paint, chips with dirt, gravel, visqueen and asphalt debris generated during removal and demolition of the Mount Si Bridge (located at this site from 1955 to 2008).
Waste Sequence Number:	2000043
Sequence Number:	1
Waste Stream EPA Code:	
CORB Waste Sequence Number:	117167

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT MOUNT SI BRIDGE (Continued)

1011904951

Waste Sequence Number: 2000043
Sequence Number: 4268780
WCDA Code: D008

Waste Stream Source Code:
CORB Waste Sequence Number: 117167
Waste Sequence Number: 2000043
Sequence Number: 1
WCDD Code: G19

AT182 KING CNTY DOT MOUNT SI BRIDGE
Target 43600 MOUNT SI RD
Property NORTH BEND, WA 98045

RCRA NonGen / NLR 1011491436
WAH000033348

Site 2 of 2 in cluster AT

Actual:
504 ft.

RCRA NonGen / NLR:

Focus Map:
13

Date form received by agency: 2010-03-10 00:00:00.0
Facility name: KING CNTY DOT MOUNT SI BRIDGE
Facility address: 43600 MOUNT SI RD
NORTH BEND, WA 98045
EPA ID: WAH000033348
Mailing address: 201 S JACKSON ST KSC TR 0231
SEATTLE, WA 98104
Contact: JULIA TURNEY
Contact address: 201 S JACKSON ST DSC TR 0231
SEATTLE, WA 98104
Contact country: US
Contact telephone: 206-296-0267
Contact email: JULIA.TURNEY@KINGCOUNTY.GOV
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: KING COUNTY DOT ROAD SERVICE DIVISION
Owner/operator address: 201 S JACKSON ST KSC TR 0231
SEATTLE, WA 98104
Owner/operator country: US
Owner/operator telephone: 206-296-0267
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: KING COUNTY DOT ROAD SERVICE DIVISION
Owner/operator address: 201 S JACKSON ST KSC TR 0231
SEATTLE, WA 98104
Owner/operator country: US
Owner/operator telephone: 206-296-0267
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT MOUNT SI BRIDGE (Continued)

1011491436

Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: KING COUNTY DOT ROAD SERVICE DIVISION
Owner/operator address: 201 S JACKSON ST KSC TR 0231
SEATTLE, WA 98104

Owner/operator country: US
Owner/operator telephone: 206-296-0267
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2009-12-31 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2010-03-09 00:00:00.0
Site name: KING CNTY DOT MOUNT SI BRIDGE
Classification: Not a generator, verified

Date form received by agency: 2010-03-09 00:00:00.0
Site name: KING CNTY DOT MOUNT SI BRIDGE
Classification: Not a generator, verified

Date form received by agency: 2010-03-09 00:00:00.0
Site name: KING CNTY DOT MOUNT SI BRIDGE
Classification: Not a generator, verified

Date form received by agency: 2010-03-09 00:00:00.0
Site name: KING CNTY DOT MOUNT SI BRIDGE
Classification: Not a generator, verified

Date form received by agency: 2009-02-26 00:00:00.0
Site name: KING CNTY DOT MOUNT SI BRIDGE
Classification: Large Quantity Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT MOUNT SI BRIDGE (Continued)

1011491436

Date form received by agency: 2008-07-30 00:00:00.0
Site name: KING CNTY DOT MOUNT SI BRIDGE
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D008
. Waste name: LEAD

Violation Status: No violations found

AS183 FRANK PDAVICH
Target 1130 E NORTH BEND WAY
Property NORTH BEND, WA 98045

WA CSCSL U001127767
WA LUST N/A
WA UST
WA ALLSITES

Site 2 of 7 in cluster AS

Actual: CSCSL:
468 ft. Name: FRANK PDAVICH
Focus Map: Address: 1130 E NORTH BEND WAY
13 City,State,Zip: NORTH BEND, WA 98045
Facility ID: 37779318
Region: Northwest
Lat/Long: 47.486034 / -121.769411
Clean Up Siteid: 5983
Site Status: Cleanup Started
Contaminant Name: Petroleum-Other
Alternate Site Names: Not reported
Site Rank: Not reported
Has Institutional Control: Not reported
Past VCP: True
Current VCP: Not reported
Ground Water: Not reported
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

LUST:
Name: FRANK PDAVICH
Address: 1130 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 37779318
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 5983
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: Not reported
Response Section: Northwest
Release Date: 01/20/1999
Lust Date: 12/02/1998
Region: Northwest
Lust ID: 5279
UST ID: 100192
Contaminant Name: Petroleum-Other
Ground Water: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANK PDAVICH (Continued)

U001127767

Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.486034 / -121.76941

UST:

Name: FRANK PDAVICH
Address: 1130 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045
Facility ID: 37779318
Site Id: 100192
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.486034
Decimal Longitude: -121.769411

Tank Name: 1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1977
Tank Closure Date: 12/02/1998
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Weekly Manual Gauging
Tank SFC Type: Not reported
Pipe Material: Other
Pipe Construction: Other
Pipe Primary Release Detection: Other
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Other
Pipe Pumping System: Other
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: FRANK PDAVICH
Address: 1130 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 2
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 02/15/1975
Tank Closure Date: 12/02/1998

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANK PDAVICH (Continued)

U001127767

Capacity Range: 5,000 to 9,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Weekly Manual Gauging
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Safe Suction (No Leak Detection)
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: FRANK PDAVICH
Address: 1130 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 3
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 02/15/1975
Tank Closure Date: 12/02/1998
Capacity Range: 5,000 to 9,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Weekly Manual Gauging
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Safe Suction (No Leak Detection)
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: FRANK PDAVICH
Address: 1130 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANK PDAVICH (Continued)

U001127767

Tank Name: 4
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 02/15/1975
Tank Closure Date: 12/02/1998
Capacity Range: 5,000 to 9,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Weekly Manual Gauging
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Safe Suction (No Leak Detection)
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: FRANK PDAVICH
Address: 1130 E NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 5
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 02/15/1975
Tank Closure Date: 12/02/1998
Capacity Range: 5,000 to 9,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Weekly Manual Gauging
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Safe Suction (No Leak Detection)
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Not reported
Responsible Unit: Northwest

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANK PADAVICH (Continued)

U001127767

Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name:	FRANK PADAVICH
Facility Id:	37779318
Interaction:	41517
Interaction 1:	I
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	100192
Date Interaction:	1975-02-15 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.486028327
Longitude:	-121.769396226
Interaction:	89137
Interaction 1:	I
Interaction 2:	LSC
Ecology Program:	HAZWASTE
Program Data:	LSC
Facility Alt.:	Transmission Plus
Program ID:	Not reported
Date Interaction:	2009-04-15 00:00:00
Date Interaction 3:	Local Source Cntrl 7/09-3
Latitude:	47.486028327
Longitude:	-121.769396226
Interaction:	41518
Interaction 1:	A
Interaction 2:	LUST
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	Not reported
Program ID:	100192
Date Interaction:	1999-01-20 00:00:00
Date Interaction 3:	LUST Facility
Latitude:	47.486028327
Longitude:	-121.769396226
Interaction:	41519
Interaction 1:	A
Interaction 2:	VOLCLNST
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	FRANK PADAVICH
Program ID:	NW1966
Date Interaction:	2008-07-04 00:00:00
Date Interaction 3:	Voluntary Cleanup Sites
Latitude:	47.486028327
Longitude:	-121.769396226

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AS184 **FRANK PADAVICH**
Target **1130 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

WA VCP **S124434149**
N/A

Site 3 of 7 in cluster AS

Actual: **468 ft.** VCP:
Focus Map: **13** Name: FRANK PADAVICH
Address: 1130 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
edr_fstat: WA
edr_fzip: 98045
edr_fcnty: KING
edr_zip: Not reported
Facility ID: 37779318
VCP Status: Not reported
VCP: Not reported
Ecology Status: Not reported
NFA Type: Not reported
Date NFA: Not reported
Rank: Not reported
Cleanup Siteid: 5983
Contaminant Name: Petroleum-Other
Soil: Confirmed Above Cleanup Levels

AS185 **TRANSMISSIONS PLUS INC**
Target **1130 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

EDR Hist Auto **1021666786**
N/A

Site 4 of 7 in cluster AS

Actual: **468 ft.** EDR Hist Auto
Focus Map: **13**

Year:	Name:	Type:
1994	RON'S AUTO SERVICE	General Automotive Repair Shops
1995	RON'S AUTO SERVICE	General Automotive Repair Shops
1998	TRANSMISSIONS PLUS INC	General Automotive Repair Shops
1999	TRANSMISSIONS PLUS INC	General Automotive Repair Shops
2000	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2001	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2002	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2003	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2004	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2005	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2006	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2007	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2008	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2009	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2010	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2011	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2012	TRANSMISSIONS PLUS INC	Automotive Transmission Repair Shops
2013	TRANSMISSIONS PLUS INC	General Automotive Repair Shops
2014	TRANSMISSIONS PLUS INC	General Automotive Repair Shops

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AS186 **FRANK PDAVICH**
Target **1130 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

FINDS **1007071697**
N/A

Site 5 of 7 in cluster AS

Actual: **468 ft.** **FINDS:**
Focus Map: **13** Registry ID: 110015483154
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015483154

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AS187 **FRANK PDAVICH**
Target **1130 E NORTH BEND WAY**
Property **NORTH BEND, WA**

WA RGA LUST **S115435229**
N/A

Site 6 of 7 in cluster AS

Actual: **468 ft.** **RGA LUST:**
Focus Map: **13**

2012	FRANK PDAVICH	1130 E NORTH BEND WAY
2011	FRANK PDAVICH	1130 E NORTH BEND WAY
2010	FRANK PDAVICH	1130 E NORTH BEND WAY
2009	FRANK PDAVICH	1130 E NORTH BEND WAY
2008	FRANK PDAVICH	1130 E NORTH BEND WAY
2007	FRANK PDAVICH	1130 E NORTH BEND WAY
2006	FRANK PDAVICH	1130 E NORTH BEND WAY
2005	FRANK PDAVICH	1130 E NORTH BEND WAY
2004	FRANK PDAVICH	1130 E NORTH BEND WAY
2003	FRANK PDAVICH	1130 E NORTH BEND WAY
2002	FRANK PDAVICH	1130 E NORTH BEND WAY
2001	FRANK PDAVICH	1130 E NORTH BEND WAY
2000	FRANK PDAVICH	1130 E NORTH BEND WAY
1999	FRANK PDAVICH	1130 E NORTH BEND WAY

AS188 **FRANK PDAVICH**
Target **1130 E NORTH BEND WAY**
Property **NORTH BEND, WA**

WA RGA HWS **S115342457**
N/A

Site 7 of 7 in cluster AS

Actual: **468 ft.** **RGA HWS:**
Focus Map: **13**

2012	FRANK PDAVICH	1130 E NORTH BEND WAY
2011	FRANK PDAVICH	1130 E NORTH BEND WAY
2010	FRANK PDAVICH	1130 E NORTH BEND WAY
2009	FRANK PDAVICH	1130 E NORTH BEND WAY
2008	FRANK PDAVICH	1130 E NORTH BEND WAY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AU189 **GAS STATION**
Target **721 SW MT SI BLVD**
Property **NORTH BEND, WA**

WA SPILLS **S105393785**
 N/A

Site 1 of 11 in cluster AU

Actual: **SPILLS:**
444 ft. Name: GAS STATION
Focus Map: Address: 721 SW MT SI BLVD
12 City,State,Zip: NORTH BEND, WA
 Facility ID: 512554
 Medium: Not reported
 Material Desc: PETROLEUM - GASOLINE
 Material Qty: 2
 Material Units: QUART
 Date Received: 08/02/2000
 Contact Name: SHELL
 Incident Date: Not reported
 Incident Category Type: Not reported
 Incident Category: Not reported
 Latitude: Not reported
 Longitude: Not reported
 Source Type: Not reported
 Source: Not reported
 Vessel Facility Name2: Not reported
 Recovered Quantity: Not reported
 Resp Party Contact: Not reported
 Cause: Not reported
 Cause Type: Not reported
 Resp Party Name: Not reported

AU190 **NORTH BEND 76**
Target **721 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

EDR Hist Auto **1020174858**
 N/A

Site 2 of 11 in cluster AU

Actual: **EDR Hist Auto**
444 ft.
Focus Map: Year: Name: Type:
12 2005 NORTH BEND 76 Gasoline Service Stations
 2006 NORTH BEND 76 Gasoline Service Stations
 2007 NORTH BEND 76 Gasoline Service Stations
 2008 NORTH BEND 76 Gasoline Service Stations
 2009 NORTH BEND 76 Gasoline Service Stations
 2010 NORTH BEND 76 Gasoline Service Stations
 2011 NORTH BEND 76 Gasoline Service Stations
 2012 NORTH BEND 76 Gasoline Service Stations

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AU191 **SAFEWAY FUEL 1528**
Target **721 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

FINDS **1007062976**
 N/A

Site 3 of 11 in cluster AU

Actual: FINDS:
444 ft. Registry ID: 110015395204
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015395204
12

Environmental Interest/Information System:

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[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AU192 **76 STATION**
Target **721 SW MT SI BLVD**
Property **NORTH BEND, WA**

WA RGA LUST **S115428930**
 N/A

Site 4 of 11 in cluster AU

Actual: RGA LUST:
444 ft. 2012 76 STATION 721 SW MT SI BLVD
Focus Map: 2011 76 STATION 721 SW MT SI BLVD
12

AU193 **76 STATION**
Target **721 SW MT SI BLVD**
Property **NORTH BEND, WA**

WA RGA HWS **S115340030**
 N/A

Site 5 of 11 in cluster AU

Actual: RGA HWS:
444 ft. 2012 76 STATION 721 SW MT SI BLVD
Focus Map: 2011 76 STATION 721 SW MT SI BLVD
12

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AV194 **SAFEWAY STORE 1528**
Target **460 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S115348442**
WA MANIFEST **N/A**

Site 1 of 3 in cluster AV

Actual:
446 ft.

ALLSITES:

Focus Map:
12

Name: SAFEWAY STORE 1528
Facility Id: 3485

Interaction: 107222
Interaction 1: A
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Safeway Store 1528
Program ID: WAH000044838
Date Interaction: 2014-02-03 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.487524878000002
Longitude: -121.79191978199999

WA MANIFEST:

Name: SAFEWAY STORE 1528
Address: 460 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility Address 2: Not reported
Facility ID: 3485
EPA ID: WAH000044838
NAICS: 445110
State Waste Code Desc: WT02
Federal Waste Code Desc: D001,D002
Form Comm: Not reported
Data Year: 2017
Permit by Rule: False
Mailing Address 2: Not reported
Treatment by Generator: False
Mixed Radioactive Waste: False
Importer of Hazardous Waste: False
Immediate Recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of Dangerous Fuel Waste: False
Generator Marketing to Burner: False
Other Marketers (i.e., blender, distributor, etc.): False
Utility Boiler Burner: False
Industry Boiler Burner: False
Industrial Furnace: False
Smelter Defferal: False
Universal Waste: Not reported
Off-Specification: Not reported
LN Address 2: Not reported
Tax Reg #: 600643521
Business Type: Not reported
Mail Name: Not reported
Mailing Address: 5918 Stoneridge Mall Rd
Mailing City,State,Zip: Pleasanton, CA 94588
Legal Organization Name: Safeway Inc
Legal Organization Type: Private

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY STORE 1528 (Continued)

S115348442

Legal Contact:	Not reported
Legal Address:	5918 Stoneridge Mall Rd
Legal Address 2:	Not reported
Legal City,State,Zip:	Pleasanton, CA 94588
Legal Phone Number:	(925)469-7000
Legal Effective Date:	11/20/1996
Land Organization Name:	Mountain Valley Center LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	PO Box 66522
Land City,State,Zip:	Burien, WA 98166
Land Phone Number:	(206)242-0105
Operator Organization Name:	Store Manager
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	460 SW Mt Si Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	(425)831-2122
Operator Effective Date:	11/20/1996
Site Contact:	Not reported
Site Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Site Contact Phone Number:	Not reported
Site Contact Email:	Not reported
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Transports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	SAFEWAY STORE 1528
Address:	460 SW MT SI BLVD
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	3485
EPA ID:	WAH000044838
NAICS:	445110
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001,D002
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFeway STORE 1528 (Continued)

S115348442

Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	600643521
Business Type:	Grocery Store
Mail Name:	Safeway Inc
Mailing Address:	5918 Stoneridge Mall Rd
Mailing City,State,Zip:	Pleasanton, CA 94588
Legal Organization Name:	Safeway Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	5918 Stoneridge Mall Rd
Legal Address 2:	Not reported
Legal City,State,Zip:	Pleasanton, CA 94588
Legal Phone Number:	925-469-7000
Legal Effective Date:	11/20/1996
Land Organization Name:	Mountain Valley Center LLC
Land Organization Type:	Private
Land Contact:	co Seahurst Invest Mgmt LLC
Land Address:	PO Box 66522
Land City,State,Zip:	Burien, WA 98166
Land Phone Number:	206-242-0105
Operator Organization Name:	Store Manager
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	460 SW Mt Si Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	425-831-2122
Operator Effective Date:	11/20/1996
Site Contact:	Store Manager
Site Contact Address:	460 SW Mt Si Blvd
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	425-831-2122
Site Contact Email:	Not reported
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Transports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY STORE 1528 (Continued)

S115348442

Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	SAFEWAY STORE 1528
Address:	460 SW MT SI BLVD
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	3485
EPA ID:	WAH000044838
NAICS:	445110
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001,D002
Form Comm:	Not reported
Data Year:	2016
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	600643521
Business Type:	Grocery Store
Mail Name:	Safeway Inc
Mailing Address:	5918 Stoneridge Mall Rd
Mailing City,State,Zip:	Pleasanton, CA 94588
Legal Organization Name:	Safeway Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	5918 Stoneridge Mall Rd
Legal Address 2:	Not reported
Legal City,State,Zip:	Pleasanton, CA 94588
Legal Phone Number:	925-469-7000
Legal Effective Date:	11/20/1996
Land Organization Name:	Mountain Valley Center LLC
Land Organization Type:	Private
Land Contact:	co Seahurst Invest Mgmt LLC
Land Address:	PO Box 66522
Land City,State,Zip:	Burien, WA 98166
Land Phone Number:	206-242-0105
Operator Organization Name:	Store Manager
Operator Organization Type:	Private
Operator:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY STORE 1528 (Continued)

S115348442

Operator Address:	460 SW Mt Si Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	425-831-2122
Operator Effective Date:	11/20/1996
Site Contact:	Store Manager
Site Contact Address:	460 SW Mt Si Blvd
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	425-831-2122
Site Contact Email:	Not reported
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	SAFEWAY STORE 1528
Address:	460 SW MT SI BLVD
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	3485
EPA ID:	WAH000044838
NAICS:	445110
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001,D002,P075
Form Comm:	Not reported
Data Year:	2015
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	600643521

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFeway STORE 1528 (Continued)

S115348442

Business Type:	Grocery Store
Mail Name:	Safeway Inc
Mailing Address:	5918 Stoneridge Mall Rd
Mailing City,State,Zip:	Pleasanton, CA 94588
Legal Organization Name:	Safeway Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	5918 Stoneridge Mall Rd
Legal Address 2:	Not reported
Legal City,State,Zip:	Pleasanton, CA 94588
Legal Phone Number:	925-467-3000
Legal Effective Date:	11/20/1996
Land Organization Name:	Mountain Valley Center LLC
Land Organization Type:	Private
Land Contact:	co Seahurst Invest Mgmt LLC
Land Address:	PO Box 66522
Land City,State,Zip:	Burien, WA 98166
Land Phone Number:	206-242-0105
Operator Organization Name:	Store Manager
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	460 SW Mt Si Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	425-831-2122
Operator Effective Date:	11/20/1996
Site Contact:	Store Manager
Site Contact Address:	460 SW Mt Si Blvd
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	425-831-2122
Site Contact Email:	Not reported
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Transports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	SAFeway STORE 1528
Address:	460 SW MT SI BLVD
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	3485
EPA ID:	WAH000044838
NAICS:	445110
State Waste Code Desc:	WT02

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFeway STORE 1528 (Continued)

S115348442

Federal Waste Code Desc:	D001,D002,P075
Form Comm:	Not reported
Data Year:	2014
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	600643521
Business Type:	Grocery Store
Mail Name:	Safeway Inc
Mailing Address:	5918 Stoneridge Mall Rd
Mailing City,State,Zip:	Pleasanton, CA 94588
Legal Organization Name:	Safeway Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	5918 Stoneridge Mall Rd
Legal Address 2:	Not reported
Legal City,State,Zip:	Pleasanton, CA 94588
Legal Phone Number:	925-467-3000
Legal Effective Date:	11/20/1996
Land Organization Name:	Mountain Valley Center LLC
Land Organization Type:	Private
Land Contact:	co Seahurst Invest Mgmt LLC
Land Address:	PO Box 66522
Land City,State,Zip:	Burien, WA 98166
Land Phone Number:	206-242-0105
Operator Organization Name:	Store Manager
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	460 SW Mt Si Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	425-831-2122
Operator Effective Date:	11/20/1996
Site Contact:	Store Manager
Site Contact Address:	460 SW Mt Si Blvd
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	425-831-2122
Site Contact Email:	Not reported
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY STORE 1528 (Continued)

S115348442

Transports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

AV195 **SAFEWAY STORE 1528**
Target **460 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

FINDS **1016782458**
ECHO **N/A**

Site 2 of 3 in cluster AV

Actual: **FINDS:**
446 ft. Registry ID: 110058229670
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110058229670
12

Environmental Interest/Information System:

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RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1016782458
Registry ID: 110058229670
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110058229670>

AV196 **SAFEWAY STORE 1528**
Target **460 SW MT SI BLVD**
Property **NORTH BEND, WA 98045**

RCRA-VSQQ **1016977544**
WAH000044838

Site 3 of 3 in cluster AV

Actual: **RCRA-VSQQ:**
446 ft. Date form received by agency: 2019-02-14 00:00:00.0
Focus Map: Facility name: SAFEWAY STORE 1528
12 Facility address: 460 SW MT SI BLVD
NORTH BEND, WA 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY STORE 1528 (Continued)

1016977544

EPA ID: WAH000044838
Mailing address: 5918 STONERIDGE MALL RD
PLEASANTON, CA 94588
Contact: KEITH POWERS
Contact address: 5918 STONERIDGE MALL RD
PLEASANTON, CA 94588
Contact country: US
Contact telephone: 510-246-0358
Contact email: KEITH.POWERS@SAFEWAY.COM
EPA Region: 10
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: STORE MANAGER
Owner/operator address: 460 SW MT SI BLVD
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 425-831-2122
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 1996-11-20 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: MOUNTAIN VALLEY CENTER LLC
Owner/operator address: PO BOX 66522
BURIEN, WA 98166
Owner/operator country: US
Owner/operator telephone: 206-242-0105
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2017-12-31 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: SAFEWAY INC
Owner/operator address: 5918 STONERIDGE MALL RD
PLEASANTON, CA 94588
Owner/operator country: US

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY STORE 1528 (Continued)

1016977544

Owner/operator telephone: 925-469-7000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 1996-11-20 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2018-01-11 00:00:00.0
Site name: SAFEWAY STORE 1528
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2017-02-09 00:00:00.0
Site name: SAFEWAY STORE 1528
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2016-01-18 00:00:00.0
Site name: SAFEWAY STORE 1528
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2015-02-10 00:00:00.0
Site name: SAFEWAY STORE 1528
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2014-02-03 00:00:00.0
Site name: SAFEWAY STORE 1528
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: P075

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY STORE 1528 (Continued)

1016977544

. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-(S)-, & SALTS

. Waste code: WT02

. Waste name: Washington State Dangerous Toxic Waste with a toxic constituents concentration greater than or equal to 0.001% and less than 1.0%, determined by biological testing methods or a book designation procedure.

Violation Status: No violations found

197
Target
Property

MOUNTAIN VIEW ESTATES NORTH BEND
NORTH BEND, WA 98045

WA ALLSITES **S121442274**
N/A

Actual:
465 ft.

Focus Map:
17

ALLSITES:
Name: MOUNTAIN VIEW ESTATES NORTH BEND
Facility Id: 1577180

Interaction: 124198
Interaction 1: A
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Mountain View Estates North Bend
Program ID: WAR306042
Date Interaction: 2017-10-18 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.487444562
Longitude: -121.7750911

AU198
Target
Property

SAFEWAY FUEL 1528
715 SW MT SI BLVD
NORTH BEND, WA 98045

WA CSCSL **U003528657**
WA LUST **N/A**
WA UST
WA ALLSITES

Site 6 of 11 in cluster AU

Actual:
445 ft.

Focus Map:
17

CSCSL:
Name: SAFEWAY FUEL 1528
Address: 721 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 92656149
Region: Northwest
Lat/Long: 47.486564 / -121.792781
Clean Up Siteid: 11075
Site Status: Cleanup Started
Contaminant Name: Benzene
Alternate Site Names: MT SI 76,MT SI SHELL,NORTH BEND 76
Site Rank: Not reported
Has Institutional Control: Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY FUEL 1528 (Continued)

U003528657

Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: SAFEWAY FUEL 1528
Address: 721 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 92656149
Region: Northwest
Lat/Long: 47.486564 / -121.792781
Clean Up Siteid: 11075
Site Status: Cleanup Started
Contaminant Name: Petroleum-Diesel
Alternate Site Names: MT SI 76,MT SI SHELL,NORTH BEND 76
Site Rank: Not reported
Has Institutional Control:Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Suspected
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: SAFEWAY FUEL 1528
Address: 721 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 92656149
Region: Northwest
Lat/Long: 47.486564 / -121.792781
Clean Up Siteid: 11075
Site Status: Cleanup Started
Contaminant Name: Petroleum-Gasoline
Alternate Site Names: MT SI 76,MT SI SHELL,NORTH BEND 76
Site Rank: Not reported
Has Institutional Control:Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Suspected
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: SAFEWAY FUEL 1528
Address: 721 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 92656149
Region: Northwest
Lat/Long: 47.486564 / -121.792781
Clean Up Siteid: 11075
Site Status: Cleanup Started
Contaminant Name: Petroleum-Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY FUEL 1528 (Continued)

U003528657

Alternate Site Names: MT SI 76,MT SI SHELL,NORTH BEND 76
Site Rank: Not reported
Has Institutional Control:Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Suspected
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

LUST:

Name: SAFEWAY FUEL 1528
Address: 721 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 92656149
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 11075
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: MT SI 76,MT SI SHELL,NORTH BEND 76
Response Section: Northwest
Release Date: 05/29/2007
Lust Date: 07/01/2011
Region: Northwest
Lust ID: 6322
UST ID: 476303
Contaminant Name: Petroleum-Diesel
Ground Water: Suspected
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.486564 / -121.79278

Name: SAFEWAY FUEL 1528
Address: 721 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 92656149
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 11075
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: MT SI 76,MT SI SHELL,NORTH BEND 76
Response Section: Northwest
Release Date: 05/29/2007
Lust Date: 07/01/2011
Region: Northwest
Lust ID: 6322
UST ID: 476303
Contaminant Name: Petroleum-Other
Ground Water: Suspected
Surface Water: Not reported
Soil: Remediated-Below

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY FUEL 1528 (Continued)

U003528657

Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.486564 / -121.79278

Name: SAFEWAY FUEL 1528
Address: 721 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 92656149
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 11075
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: MT SI 76,MT SI SHELL,NORTH BEND 76
Response Section: Northwest
Release Date: 05/29/2007
Lust Date: 07/01/2011
Region: Northwest
Lust ID: 6322
UST ID: 476303
Contaminant Name: Petroleum-Gasoline
Ground Water: Suspected
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.486564 / -121.79278

Name: SAFEWAY FUEL 1528
Address: 721 SW MT SI BLVD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 92656149
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 11075
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: MT SI 76,MT SI SHELL,NORTH BEND 76
Response Section: Northwest
Release Date: 05/29/2007
Lust Date: 07/01/2011
Region: Northwest
Lust ID: 6322
UST ID: 476303
Contaminant Name: Benzene
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.486564 / -121.79278

UST:
Name: SAFEWAY FUEL 1528
Address: 715 SW MT SI BLVD
City: NORTH BEND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY FUEL 1528 (Continued)

U003528657

Zip: 98045
Facility ID: 92656149
Site Id: 476303
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.486564
Decimal Longitude: -121.792781

Tank Name: 1
Tag Number: A5375
Tank Status: Removed
Tank Status Date: 11/14/2006
Tank Install Date: 08/19/1998
Tank Closure Date: 02/16/2007
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: 08/19/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Steel Clad with Corrosion Resistant Composite
Tank Construction: Double Wall Tank
Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Flexible Piping
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: SAFEWAY FUEL 1528
Address: 715 SW MT SI BLVD
City: NORTH BEND
Zip: 98045

Tank Name: 2
Tag Number: A5375
Tank Status: Removed
Tank Status Date: 11/14/2006
Tank Install Date: 08/19/1998
Tank Closure Date: 02/16/2007
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: 08/19/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Steel Clad with Corrosion Resistant Composite
Tank Construction: Double Wall Tank
Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY FUEL 1528 (Continued)

U003528657

Tank SFC Type: Not reported
 Pipe Material: Flexible Piping
 Pipe Construction: Double Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispencer/Pump SFC Type: Not reported

Name: SAFEWAY FUEL 1528
 Address: 715 SW MT SI BLVD
 City: NORTH BEND
 Zip: 98045

Tank Name: 3
 Tag Number: A5375
 Tank Status: Removed
 Tank Status Date: 11/14/2006
 Tank Install Date: 08/19/1998
 Tank Closure Date: 02/16/2007
 Capacity Range: 10,000 to 19,999 Gallons
 Tank Permit Expiration Date: Not reported
 Tank Upgrade Date: 08/19/1998
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Ball Float Valve (vent line)
 Tank Material: Steel Clad with Corrosion Resistant Composite
 Tank Construction: Double Wall Tank
 Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
 Tank Corrosion Protection: Corrosion Resistant
 Tank Manifold: Not reported
 Tank Release Detection: Automatic Tank Gauging
 Tank SFC Type: Not reported
 Pipe Material: Flexible Piping
 Pipe Construction: Double Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispencer/Pump SFC Type: Not reported

Name: SAFEWAY FUEL 1528
 Address: 715 SW MT SI BLVD
 City: NORTH BEND
 Zip: 98045

Tank Name: 4
 Tag Number: A5375
 Tank Status: Removed
 Tank Status Date: 11/14/2006
 Tank Install Date: 08/19/1998
 Tank Closure Date: 02/16/2007
 Capacity Range: 10,000 to 19,999 Gallons
 Tank Permit Expiration Date: Not reported
 Tank Upgrade Date: 08/19/1998
 Tank Spill Prevention: Spill Bucket/Spill Box

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY FUEL 1528 (Continued)

U003528657

Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Steel Clad with Corrosion Resistant Composite
Tank Construction: Double Wall Tank
Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Flexible Piping
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: SAFEWAY FUEL 1528
Address: 715 SW MT SI BLVD
City: NORTH BEND
Zip: 98045

Tank Name: SUPREME/DIES
Tag Number: A5375
Tank Status: Operational
Tank Status Date: 08/18/2008
Tank Install Date: 12/28/2006
Tank Closure Date: Not reported
Capacity Range: 20,000 to 29,999 Gallons
Tank Permit Expiration Date: 10/31/2020
Tank Upgrade Date: Not reported
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Steel Clad with Corrosion Resistant Composite
Tank Construction: Double Wall Tank
Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Flexible Piping
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: SAFEWAY FUEL 1528
Address: 715 SW MT SI BLVD
City: NORTH BEND
Zip: 98045

Tank Name: SUPREME/DIES
Tag Number: A5375
Tank Status: Operational

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY FUEL 1528 (Continued)

U003528657

Tank Status Date: 08/18/2008
 Tank Install Date: 12/28/2006
 Tank Closure Date: Not reported
 Capacity Range: 20,000 to 29,999 Gallons
 Tank Permit Expiration Date: 10/31/2020
 Tank Upgrade Date: Not reported
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Ball Float Valve (vent line)
 Tank Material: Steel Clad with Corrosion Resistant Composite
 Tank Construction: Double Wall Tank
 Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
 Tank Corrosion Protection: Corrosion Resistant
 Tank Manifold: Not reported
 Tank Release Detection: Automatic Tank Gauging
 Tank SFC Type: Not reported
 Pipe Material: Flexible Piping
 Pipe Construction: Double Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Not reported

Name: SAFEWAY FUEL 1528
 Address: 715 SW MT SI BLVD
 City: NORTH BEND
 Zip: 98045

Tank Name: UNLEAD
 Tag Number: A5375
 Tank Status: Operational
 Tank Status Date: 08/18/2008
 Tank Install Date: 12/28/2006
 Tank Closure Date: Not reported
 Capacity Range: 20,000 to 29,999 Gallons
 Tank Permit Expiration Date: 10/31/2020
 Tank Upgrade Date: Not reported
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Ball Float Valve (vent line)
 Tank Material: Steel Clad with Corrosion Resistant Composite
 Tank Construction: Double Wall Tank
 Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
 Tank Corrosion Protection: Corrosion Resistant
 Tank Manifold: Not reported
 Tank Release Detection: Automatic Tank Gauging
 Tank SFC Type: Not reported
 Pipe Material: Flexible Piping
 Pipe Construction: Double Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Not reported

Name: SAFEWAY FUEL 1528

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY FUEL 1528 (Continued)

U003528657

Address: 715 SW MT SI BLVD
City: NORTH BEND
Zip: 98045

Tank Name: UNLEAD
Tag Number: A5375
Tank Status: Operational
Tank Status Date: 08/18/2008
Tank Install Date: 12/28/2006
Tank Closure Date: Not reported
Capacity Range: 20,000 to 29,999 Gallons
Tank Permit Expiration Date: 10/31/2020
Tank Upgrade Date: Not reported
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)
Tank Material: Steel Clad with Corrosion Resistant Composite
Tank Construction: Double Wall Tank
Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Flexible Piping
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: SAFEWAY FUEL 1528
Facility Id: 92656149

Interaction: 72316
Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 476303
Date Interaction: 1998-08-19 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.486558330000001
Longitude: -121.792766222

Interaction: 72317
Interaction 1: I
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 476303
Date Interaction: 2007-05-29 00:00:00
Date Interaction 3: LUST Facility

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY FUEL 1528 (Continued)

U003528657

Latitude: 47.486558330000001
Longitude: -121.792766222

AU199	SAFEWAY FUEL 1528
Target	715 SW MT SI BLVD
Property	NORTH BEND, WA 98045

WA Financial Assurance **S108893379**
N/A

Site 7 of 11 in cluster AU

Actual: WA Financial Assurance 1:
445 ft. Name:

Focus Map: 17

Name:	SAFEGWAY FUEL 1528
Address:	715 SW MT SI BLVD
City,State,Zip:	NORTH BEND, WA 98045
DOE Site ID:	476303
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	07/01/2015
Expiration Date:	07/01/2017
Address 2:	Not reported
Policy Number:	PEL 1849466 06
Effective Date:	07/01/2015
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.486564
Longitude:	-121.792781

Name:	SAFEGWAY FUEL 1528
Address:	715 SW MT SI BLVD
City,State,Zip:	NORTH BEND, WA 98045
DOE Site ID:	476303
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	07/01/2017
Expiration Date:	11/01/2018
Address 2:	Not reported
Policy Number:	PEL 1849466 07
Effective Date:	07/01/2017
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.486564
Longitude:	-121.792781

Name:	SAFeway FUEL 1528
Address:	715 SW MT SI BLVD
City,State,Zip:	NORTH BEND, WA 98045
DOE Site ID:	476303
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	11/01/2018
Expiration Date:	11/01/2019
Address 2:	Not reported
Policy Number:	PEL 1849466 08
Effective Date:	11/01/2018
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFEWAY FUEL 1528 (Continued)

S108893379

Retroactive Date: Not reported
Latitude: 47.486564
Longitude: -121.792781

AU200 **SAFEWAY**
Target **715 W MOUNT SI BLVD**
Property **NORTH BEND, WA**

WA SPILLS **S109864922**
 N/A

Site 8 of 11 in cluster AU

Actual:
445 ft.

Focus Map:
17

SPILLS:

Name: SAFEWAY
Address: 715 W MOUNT SI BLVD
City,State,Zip: NORTH BEND, WA
Facility ID: 617582
Medium: SURFACE WATER-FRESH
Material Desc: PETROLEUM - GASOLINE
Material Qty: 5
Material Units: GALLON
Date Received: 01/15/2010
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

Name: Not reported
Address: 715 W MOUNT SI BLVD
City,State,Zip: NORTH BEND, WA
Facility ID: 614626
Medium: IMPERMEABLE CONTAINMENT
Material Desc: PETROLEUM - GASOLINE
Material Qty: 3
Material Units: GALLON
Date Received: 08/11/2009
Contact Name: UNKNOWN
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AU201
Target
Property

SAFEWAY FUEL 1528
715 SW MT SI BLVD
NORTH BEND, WA

WA RGA LUST

S115442351
N/A

Site 9 of 11 in cluster AU

Actual:
445 ft.

RGA LUST:

2010 SAFEWAY FUEL 1528 715 SW MT SI BLVD

Focus Map:
17

AU202
Target
Property

SAFEWAY FUEL #1528
715 SW MT SI BLVD
NORTH BEND, WA

WA RGA LUST

S115442343
N/A

Site 10 of 11 in cluster AU

Actual:
445 ft.

RGA LUST:

2008 SAFEWAY FUEL #1528 715 SW MT SI BLVD

Focus Map:
17

2007 SAFEWAY FUEL #1528 715 SW MT SI BLVD

AU203
Target
Property

SAFEWAY FUEL CENTER 1528
715 SW MT SI BLVD
NORTH BEND, WA

WA RGA LUST

S115442361
N/A

Site 11 of 11 in cluster AU

Actual:
445 ft.

RGA LUST:

2009 SAFEWAY FUEL CENTER 1528 715 SW MT SI BLVD

Focus Map:
17

204
Target
Property

MT SI BRIDGE 2550A
NORTH BEND, WA 98045

WA ALLSITES
WA NPDES

S123096207
N/A

ALLSITES:

Name:

MT SI BRIDGE 2550A

Actual:
481 ft.

Facility Id:

93611

Focus Map:
18

NPDES:

Name:

MT SI BRIDGE 2550A

Address:

Not reported

City,State,Zip:

NORTH BEND, WA 98045

Facility Status:

Not reported

Facility Type:

Bridge Washing GP

Admin Region:

Headquarters

Date Issued:

06/21/2017

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MT SI BRIDGE 2550A (Continued)

S123096207

Latitude: Not reported
Longitude: Not reported
Permit ID: WAG994404
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 07/31/2022
Effective Date: 12/03/2018
Days to Expiration: -1020

AW205

**Target
Property**

**448 SE MAPLE DRIVE ENTRYWAY/HALL
NORTH BEND, WA**

WA ASBESTOS

**S125601586
N/A**

Site 1 of 2 in cluster AW

**Actual:
449 ft.**

ASBESTOS:

**Focus Map:
17**

Name: Not reported
Address: 448 SE MAPLE DRIVE ENTRYWAY/HALL
City,State,Zip: NORTH BEND, WA
Facility Type: Not reported
Parent ID: Not reported
Form ID: 42337##1210Therm932825
Notice Date: 09/29/2010
Start Date: 10/05/2010
Completion Date: 10/05/2010
Initial: Not reported
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: Not reported
Site Hours End: Not reported
Sunday: Not reported
Monday: Not reported
Tuesday: Not reported
Wednesday: Not reported
Thursday: Not reported
Friday: Not reported
Saturday: Not reported
Contractor ID: Not reported
Phone: Not reported
Job Site CAS: Not reported
Project Form Email: Not reported
Property Owner Name: Not reported
Property Owner Agent: Not reported
Property Owner Company: Thermatech Northwest Inc (ABCN00001210)
Property Owner Address: Not reported
Property Owner City: Not reported
Property Owner State: Not reported
Property Owner Zip4: Not reported
Property Owner Phone: Not reported
Job Site Room: Not reported
Facility Age: Not reported
Facility Size: Not reported
Facility Remodel: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125601586

Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Popcorn Ceiling
Supervisor:	Joe Agosto ()

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125601586

Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	448 SE MAPLE DRIVE ENTRYWAY/HALL
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	42564##1210Therm809998
Notice Date:	10/06/2010
Start Date:	10/05/2010
Completion Date:	10/05/2010
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125601586

Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Popcorn Ceiling
Supervisor:	Joe Agosto ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	448 SE MAPLE DRIVE ENTRYWAY/HALL
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	42273##1210Therm995712
Notice Date:	09/27/2010
Start Date:	09/28/2010
Completion Date:	10/08/2010
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125601586

Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125601586

Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Popcorn Ceiling
Supervisor:	Joe Agosto ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	448 SE MAPLE DRIVE ENTRYWAY/HALL
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	41956##1210Therm041833
Notice Date:	09/16/2010
Start Date:	09/28/2010
Completion Date:	09/28/2010
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125601586

Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125601586

Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Popcorn Ceiling
Supervisor:	Joe Agosto ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	448 SE MAPLE DRIVE ENTRYWAY/HALL
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	41800##1210Therm101143
Notice Date:	09/10/2010
Start Date:	09/20/2010
Completion Date:	09/20/2010
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125601586

Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Popcorn Ceiling
Supervisor:	Joe Agosto ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AW206

Target
Property

448 MAPLE DRIVE ALL
NORTH BEND, WA 98045

WA ASBESTOS

S119169880
N/A

Site 2 of 2 in cluster AW

Actual:
449 ft.

Focus Map:
17

ASBESTOS:

Name:	Not reported
Address:	448 MAPLE DRIVE ALL
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	SFR
Parent ID:	0
Form ID:	88997##1427Affor430328
Notice Date:	08/08/2014
Start Date:	09/08/2014
Completion Date:	09/10/2014
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:00 AM
Site Hours End:	2:30 PM
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	4255128750
Job Site CAS:	Anthony Chase
Project Form Email:	ci@affenv.net
Property Owner Name:	Lynn Jensen
Property Owner Agent:	Not reported
Property Owner Company:	Affordable Environmental, Inc (ABCN00001427)
Property Owner Address:	448 Maple Drive
Property Owner City:	North Bend
Property Owner State:	WA
Property Owner Zip4:	98045
Property Owner Phone:	2536386606
Job Site Room:	All
Facility Age:	1970's
Facility Size:	1230
Facility Remodel:	1
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	1230
Fireproofing:	Not reported
Popcorn Ceiling:	1
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119169880

VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	1
Type C Pressure:	Not reported
Other Resp Pro:	1
Other Resp Pro Text:	PPE Pursuant to task
Comments:	Not reported
Date Time Submitted:	2014-08-08 15:14:46
Submitter IP Address:	67.183.174.255
Region:	2
UBI:	602577245
Notice type:	Initial
Project Type:	Popcorn Ceiling
Supervisor:	Anthony Chase ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

207 NORTH BEND CITY
Target 1155 E NORTH BEND WAY
Property NORTH BEND, WA 98045

WA ALLSITES 1007265732
RCRA NonGen / NLR WAH000022826
FINDS
ECHO
WA MANIFEST
WA NPDES

Actual:
467 ft.

ALLSITES:

Focus Map:
18

Name:
Facility Id:

NORTH BEND CITY
5666768

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND CITY (Continued)

1007265732

Interaction: 17257
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: NORTH BEND CITY
Program ID: WAH000022826
Date Interaction: 2004-02-20 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.487504328999997
Longitude: -121.771135226

Interaction: 17258
Interaction 1: I
Interaction 2: HWTRNSFR
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAH000022826
Date Interaction: 2004-12-31 00:00:00
Date Interaction 3: Haz Waste Transfer Facili
Latitude: 47.487504328999997
Longitude: -121.771135226

Name: NORTH BEND CITY HALL
Facility Id: 71090

RCRA NonGen / NLR:

Date form received by agency: 2009-02-04 00:00:00.0
Facility name: NORTH BEND CITY
Facility address: 1155 E NORTH BEND WAY
NORTH BEND, WA 98045
EPA ID: WAH000022826
Mailing address: PO BOX 896
NORTH BEND, WA. 98045
NORTH BEND, WA 98045
Contact: PAT OSBORNE
Contact address: PO BOX 896
NORTH BEND, WA 98045
Contact country: US
Contact telephone: 425-888-0486
Contact email: PATO@CI.NORTH-BEND.WA.US
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: NORTH BEND CITY
Owner/operator address: PO BOX 896
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 425-888-0486
Owner/operator email: Not reported
Owner/operator fax: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND CITY (Continued)

1007265732

Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2002-01-01 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: NORTH BEND CITY
Owner/operator address: PO BOX 896
NORTH BEND, WA 98045

Owner/operator country: US
Owner/operator telephone: 425-888-0486
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2008-12-31 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: OSBORNE, PAT
Owner/operator address: PO BOX 896 NORTH BEND, WA. 98045
NORTH BEND, WA 98045

Owner/operator country: US
Owner/operator telephone: 425-888-0486
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 1996-05-20 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2009-02-03 00:00:00.0
Site name: NORTH BEND CITY
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2009-02-03 00:00:00.0
Site name: NORTH BEND CITY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND CITY (Continued)

1007265732

Classification: Not a generator, verified

Date form received by agency: 2008-03-06 00:00:00.0

Site name: NORTH BEND CITY

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2007-12-31 00:00:00.0

Site name: NORTH BEND CITY

Classification: Not a generator, verified

Date form received by agency: 2007-04-05 00:00:00.0

Site name: NORTH BEND CITY

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2006-05-01 00:00:00.0

Site name: NORTH BEND CITY

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2005-12-31 00:00:00.0

Site name: NORTH BEND CITY

Classification: Not a generator, verified

Date form received by agency: 2005-04-18 00:00:00.0

Site name: NORTH BEND CITY

Classification: Not a generator, verified

Date form received by agency: 2005-04-18 00:00:00.0

Site name: NORTH BEND CITY

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2004-03-05 00:00:00.0

Site name: NORTH BEND CITY

Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110064679879

Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110064679879

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

COMMUNITY WATER SYSTEM

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA

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EPA ID Number

NORTH BEND CITY (Continued)

1007265732

program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Registry ID: 110070226846

Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110070226846

Environmental Interest/Information System:

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1007265732
Registry ID: 110070226846
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110070226846>

Envid: 1007265732
Registry ID: 110064679879
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110064679879>

WA MANIFEST:

Name:	NORTH BEND CITY
Address:	1155 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	5666768
EPA ID:	WAH000022826
NAICS:	221310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2008
Permit by Rule:	False
Mailing Address 2:	North Bend, Wa. 98045
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported

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MAP FINDINGS

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EDR ID Number
EPA ID Number

NORTH BEND CITY (Continued)

1007265732

Tax Reg #:	175000595
Business Type:	Government
Mail Name:	North Bend City
Mailing Address:	PO Box 896
Mailing City,State,Zip:	North Bend, WA 98045
Legal Organization Name:	North Bend City
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	PO Box 896
Legal Address 2:	Not reported
Legal City,State,Zip:	North Bend, WA 98045
Legal Phone Number:	(425)888-0486 14
Legal Effective Date:	01/01/2002
Land Organization Name:	North Bend City
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	PO Box 896
Land City,State,Zip:	North Bend, WA 98045
Land Phone Number:	(425)888-0486 14
Operator Organization Name:	Not reported
Operator Organization Type:	Municipal
Operator:	Pat Osborne
Operator Address:	PO Box 896
Operator Address 2:	North Bend, Wa. 98045
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	(425)888-0486 14
Operator Effective Date:	05/20/1996
Site Contact:	Pat Osborne
Site Contact Address:	PO Box 896
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	(425)888-0486 14
Site Contact Email:	pato@ci.north-bend.wa.us
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	NORTH BEND CITY
Address:	1155 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	5666768
EPA ID:	WAH000022826
NAICS:	221310

Map ID
Direction
Distance
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND CITY (Continued)

1007265732

State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	Not reported
Permit by Rule:	FALSE
Mailing Address 2:	North Bend, Wa. 98045
Treatment by Generator:	FALSE
Mixed Radioactive Waste:	FALSE
Importer of Hazardous Waste:	FALSE
Immediate Recycler:	FALSE
Treatment/Storage/Disposal/Recycling Facility:	FALSE
Generator of Dangerous Fuel Waste:	FALSE
Generator Marketing to Burner:	FALSE
Other Marketers (i.e., blender, distributor, etc.):	FALSE
Utility Boiler Burner:	FALSE
Industry Boiler Burner:	FALSE
Industrial Furnace:	FALSE
Smelter Defferal:	FALSE
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000595
Business Type:	Government
Mail Name:	North Bend City
Mailing Address:	PO Box 896
Mailing City,State,Zip:	North Bend, WA 98045
Legal Organization Name:	North Bend City
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	PO Box 896
Legal Address 2:	Not reported
Legal City,State,Zip:	North Bend, WA 98045
Legal Phone Number:	(425)888-0486 14
Legal Effective Date:	01/01/2002
Land Organization Name:	North Bend City
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	PO Box 896
Land City,State,Zip:	North Bend, WA 98045
Land Phone Number:	(425)888-0486 14
Operator Organization Name:	Not reported
Operator Organization Type:	Municipal
Operator:	Pat Osborne
Operator Address:	PO Box 896
Operator Address 2:	North Bend, Wa. 98045
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	(425)888-0486 14
Operator Effective Date:	05/20/1996
Site Contact:	Pat Osborne
Site Contact Address:	PO Box 896
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	(425)888-0486 14
Site Contact Email:	pato@ci.north-bend.wa.us
Gen Status Code:	SQG
Monthly Generation:	FALSE
Batch Generation:	FALSE
One Time Generation:	FALSE

Map ID
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MAP FINDINGS

Site

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EDR ID Number
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NORTH BEND CITY (Continued)

1007265732

Transport Own Waste:	FALSE
Tranports Other Waste:	FALSE
Recycler Onsite:	FALSE
Transfer Facility:	FALSE
Other Exemption:	Not reported
UW Battery Gen:	FALSE
Used Oil Transporter:	FALSE
Used Oil Transfer Facility:	FALSE
Used Oil Processor:	FALSE
Used Oil Refiner:	FALSE
Used Oil Fuel Marketer Directs Shipments:	FALSE
Used Oil Fuel Marketer Meets Specs:	FALSE
Site Contact Address 2:	Not reported
Name:	NORTH BEND CITY
Address:	1155 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	5666768
EPA ID:	WAH000022826
NAICS:	221310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	Not reported
Permit by Rule:	No
Mailing Address 2:	North Bend Wa. 98045
Treatment by Generator:	No
Mixed Radioactive Waste:	No
Importer of Hazardous Waste:	No
Immediate Recycler:	No
Treatment/Storage/Disposal/Recycling Facility:	No
Generator of Dangerous Fuel Waste:	No
Generator Marketing to Burner:	No
Other Marketers (i.e., blender, distributor, etc.):	No
Utility Boiler Burner:	No
Industry Boiler Burner:	No
Industrial Furnace:	No
Smelter Defferal:	No
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000595
Business Type:	Government
Mail Name:	North Bend City
Mailing Address:	PO Box 896
Mailing City,State,Zip:	North Bend, WA 98045
Legal Organization Name:	North Bend City
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	PO Box 896
Legal Address 2:	Not reported
Legal City,State,Zip:	North Bend, WA 98045
Legal Phone Number:	(425)888-0486 14
Legal Effective Date:	01/01/2002
Land Organization Name:	North Bend City
Land Organization Type:	Municipal

Map ID
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MAP FINDINGS

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Database(s)

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EPA ID Number

NORTH BEND CITY (Continued)

1007265732

Land Contact:	Not reported
Land Address:	PO Box 896
Land City,State,Zip:	North Bend, WA 98045
Land Phone Number:	(425)888-0486 14
Operator Organization Name:	Not reported
Operator Organization Type:	Municipal
Operator:	Pat Osborne
Operator Address:	PO Box 896
Operator Address 2:	North Bend Wa. 98045
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	(425)888-0486 14
Operator Effective Date:	05/20/1996
Site Contact:	Pat Osborne
Site Contact Address:	PO Box 896
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	(425)888-0486 14
Site Contact Email:	pato@ci.north-bend.wa.us
Gen Status Code:	SQG
Monthly Generation:	No
Batch Generation:	No
One Time Generation:	No
Transport Own Waste:	No
Tranports Other Waste:	No
Recycler Onsite:	No
Transfer Facility:	No
Other Exemption:	Not reported
UW Battery Gen:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Fuel Marketer Directs Shipments:	No
Used Oil Fuel Marketer Meets Specs:	No
Site Contact Address 2:	Not reported
Name:	NORTH BEND CITY
Address:	1155 E NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	5666768
EPA ID:	WAH000022826
NAICS:	221310
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	Not reported
Permit by Rule:	F
Mailing Address 2:	North Bend, Wa. 98045
Treatment by Generator:	F
Mixed Radioactive Waste:	F
Importer of Hazardous Waste:	F
Immediate Recycler:	F
Treatment/Storage/Disposal/Recycling Facility:	F
Generator of Dangerous Fuel Waste:	F
Generator Marketing to Burner:	F
Other Marketers (i.e., blender, distributor, etc.):	F
Utility Boiler Burner:	F

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NORTH BEND CITY (Continued)

1007265732

Industry Boiler Burner:	F
Industrial Furnace:	F
Smelter Defferal:	F
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	175000595
Business Type:	Government
Mail Name:	North Bend City
Mailing Address:	PO Box 896
Mailing City,State,Zip:	North Bend, WA 98045
Legal Organization Name:	North Bend City
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	PO Box 896
Legal Address 2:	Not reported
Legal City,State,Zip:	North Bend, WA 98045
Legal Phone Number:	(425)888-0486 14
Legal Effective Date:	01/01/2002
Land Organization Name:	North Bend City
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	PO Box 896
Land City,State,Zip:	North Bend, WA 98045
Land Phone Number:	(425)888-0486 14
Operator Organization Name:	Not reported
Operator Organization Type:	Municipal
Operator:	Pat Osborne
Operator Address:	PO Box 896
Operator Address 2:	North Bend, Wa. 98045
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	(425)888-0486 14
Operator Effective Date:	05/20/1996
Site Contact:	Pat Osborne
Site Contact Address:	PO Box 896
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	(425)888-0486 14
Site Contact Email:	pato@ci.north-bend.wa.us
Gen Status Code:	SQG
Monthly Generation:	F
Batch Generation:	F
One Time Generation:	F
Transport Own Waste:	F
Tranports Other Waste:	F
Recycler Onsite:	F
Transfer Facility:	F
Other Exemption:	Not reported
UW Battery Gen:	F
Used Oil Transporter:	F
Used Oil Transfer Facility:	F
Used Oil Processor:	F
Used Oil Refiner:	F
Used Oil Fuel Marketer Directs Shipments:	F
Used Oil Fuel Marketer Meets Specs:	F
Site Contact Address 2:	Not reported

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NORTH BEND CITY (Continued)

1007265732

NPDES:

Name: NORTH BEND CITY HALL
Address: 1155 E NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR306273
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 03/12/2018
Days to Expiration: -443

AX208 VECTOR CONSTRUCTION
Target 12540 412TH AVE SE
Property NORTH BEND, WA 98045

WA ALLSITES S111288983
N/A

Site 1 of 2 in cluster AX

Actual:
448 ft.

ALLSITES:

Focus Map:
17

Name: VECTOR CONSTRUCTION
Facility Id: 10025
Interaction: 97872
Interaction 1: A
Interaction 2: RSVP
Ecology Program: HAZWASTE
Program Data: RSVP
Facility Alt.: Vector Construction
Program ID: Not reported
Date Interaction: 2011-03-07 00:00:00
Date Interaction 3: Revised Site Visit Progra
Latitude: 47.487146330000002
Longitude: -121.789978222

AX209 VECTOR CONSTRUCTION
Target 12540 412TH AVE SE
Property NORTH BEND, WA 98045

FINDS 1014910989
N/A

Site 2 of 2 in cluster AX

Actual:
448 ft.

FINDS:

Focus Map:
17

Registry ID: 110043882064
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110043882064

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a

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EPA ID Number

VECTOR CONSTRUCTION (Continued)

1014910989

means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AY210 MALONEY GROVE 9 LOT SHORT PLAT
Target 701 MALONEY GROVE AVE SE
Property NORTH BEND, WA 98045

ECHO 1017715144
N/A

Site 1 of 3 in cluster AY

Actual: ECHO:
467 ft. Envid: 1017715144
Focus Map: Registry ID: 110055371146
17 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110055371146>

AY211 MALONEY GROVE 9 LOT SHORT PLAT
Target 701 MALONEY GROVE AVE SE
Property NORTH BEND, WA 98045

WA ALLSITES S113831078
WA ASBESTOS N/A

Site 2 of 3 in cluster AY

Actual: ALLSITES:
467 ft. Name: MALONEY GROVE 9 LOT SHORT PLAT
Focus Map: Facility Id: 15084
17

ASBESTOS:

Name: Not reported
Address: 701 MALONEY GROVE AVE SE
City,State,Zip: NORTH BEND, WA
Facility Type: Not reported
Parent ID: Not reported
Form ID: 75478##1172Partn103178
Notice Date: 08/19/2013
Start Date: 08/29/2013
Completion Date: 09/20/2013
Initial: Not reported
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: Not reported
Site Hours End: Not reported
Sunday: Not reported
Monday: Not reported
Tuesday: Not reported
Wednesday: Not reported
Thursday: Not reported
Friday: Not reported
Saturday: Not reported
Contractor ID: Not reported
Phone: Not reported
Job Site CAS: Not reported

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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MALONEY GROVE 9 LOT SHORT PLAT (Continued)

S113831078

Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Partners Construction Inc (ABCN00001172)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported

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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MALONEY GROVE 9 LOT SHORT PLAT (Continued)

S113831078

PAPR: Not reported
Type C Continuous: Not reported
Type C Pressure: Not reported
Other Resp Pro: Not reported
Other Resp Pro Text: Not reported
Comments: Not reported
Date Time Submitted: Not reported
Submitter IP Address: Not reported
Region: 2
UBI: 601546194
Notice type: Initial
Project Type: Popcorn Ceiling, Sheet Vinyl, Vinyl Asbestos Tile
Supervisor: Wade Lee ()
Supervisor Phone: Not reported
Certificate Status: EXPIRED

AY212 MALONEY GROVE 9 LOT SHORT PLAT
Target 701 MALONEY GROVE AVE SE
Property NORTH BEND, WA 98045

FINDS 1016403075
N/A

Site 3 of 3 in cluster AY

Actual: 467 ft. FINDS:
Focus Map: 17 Registry ID: 110055371146
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110055371146

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AZ213 SMITTYS INC
Target 1410 E NORTH BEND WAY
Property NORTH BEND, WA 98045

WA ALLSITES S110036446
N/A

Site 1 of 7 in cluster AZ

Actual: 474 ft. ALLSITES:
Focus Map: 18 Name: SMITTYS INC
Facility Id: 11055
Interaction: 80146
Interaction 1: A

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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SMITTY'S INC (Continued)

S110036446

Interaction 2:	RSVP
Ecology Program:	HAZWASTE
Program Data:	RSVP
Facility Alt.:	Smittys Inc
Program ID:	Not reported
Date Interaction:	2006-09-24 00:00:00
Date Interaction 3:	Revised Site Visit Progra
Latitude:	47.489084882
Longitude:	-121.774351309

AZ214 **SMITTY'S INC**
Target **1410 E NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

FINDS **1012294824**
N/A

Site 2 of 7 in cluster AZ

Actual: **474 ft.** **FINDS:**
Focus Map: **18** Registry ID: 110040127519
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110040127519

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AZ215 **SNOQUALMIE VALLEY APARTMENTS**
Target **42700 SE NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S110036488**
N/A

Site 3 of 7 in cluster AZ

Actual: **475 ft.** **ALLSITES:**
Focus Map: **18** Name: SNOQUALMIE VALLEY APARTMENTS
Facility Id: 4672

Interaction:	83834
Interaction 1:	I
Interaction 2:	CONSTSWGP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	SNOQUALMIE VALLEY APARTMENTS
Program ID:	WAR005215
Date Interaction:	2003-05-16 00:00:00
Date Interaction 3:	Construction SW GP
Latitude:	47.486317505000002
Longitude:	-121.767581349

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AZ216 42404 SE NORTH BEND WAY NORTH BEND WA 98045
Target 42404 SE NORTH BEND WAY
Property NORTH BEND, WA 98045

FINDS 1007072676
N/A

Site 4 of 7 in cluster AZ

Actual: FINDS:
475 ft. Registry ID: 110015493036
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015493036
18

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Registry ID: 110020781607
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110020781607

Environmental Interest/Information System:

US EPA Air Quality System (AQS) contains ambient air pollution data collected by EPA, State, Local, and Tribal air pollution control agencies from thousands of monitoring stations.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AZ217 RONS AUTO SERVICE
Target 42620 SE NORTH BEND WAY
Property NORTH BEND, WA 98045

EDR Hist Auto 1021132994
N/A

Site 5 of 7 in cluster AZ

Actual: EDR Hist Auto
475 ft.

Focus Map:	Year:	Name:	Type:
18	1982	RONs AUTO SERVICE	General Automotive Repair Shops
	1983	RONs AUTO SERVICE	General Automotive Repair Shops
	1985	RONs AUTO SERVICE	General Automotive Repair Shops
	1986	RONs AUTO SERVICE	General Automotive Repair Shops
	1987	RONs AUTO SERVICE	General Automotive Repair Shops
	1988	RONs AUTO SERVICE	General Automotive Repair Shops
	1989	RONs AUTO SERVICE	General Automotive Repair Shops
	1990	RONs AUTO SERVICE	General Automotive Repair Shops
	1991	RONs AUTO SERVICE	General Automotive Repair Shops
	1992	RONs AUTO SERVICE	General Automotive Repair Shops
	1993	RONs AUTO SERVICE	General Automotive Repair Shops

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AZ218
Target
Property

NORTH BEND RANGER STN
42404 SE NORTH BEND WAY
NORTH BEND, WA 98045

WA UST
WA ALLSITES

U001121852
N/A

Site 6 of 7 in cluster AZ

Actual:
475 ft.

Focus Map:
18

UST:

Name: NORTH BEND RANGER STN
Address: 42404 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045
Facility ID: 32441422
Site Id: 115
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.483264
Decimal Longitude: -121.76356

Tank Name: 1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Steel
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: NORTH BEND RANGER STN
Address: 42404 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 2
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND RANGER STN (Continued)

U001121852

Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Steel
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: NORTH BEND RANGER STN
Address: 42404 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 3
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Steel
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: NORTH BEND RANGER STN
Facility Id: 32441422

Interaction: 37925
Interaction 1: I
Interaction 2: UST

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND RANGER STN (Continued)

U001121852

Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	115
Date Interaction:	2000-02-29 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.483258327000001
Longitude:	-121.76354522699999

AZ219 SNOQUALMIE VALLEY APARTMENTS
Target 42700 SE NORTH BEND WAY
Property NORTH BEND, WA 98045

FINDS 1016706240
N/A

Site 7 of 7 in cluster AZ

Actual: FINDS:
475 ft. Registry ID: 110056478565
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110056478565
18

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

BA220 MALONEY GROVE 13
Target 710 MALONEY GROVE AVE SE
Property NORTH BEND, WA 98045

WA ALLSITES S118147047
WA ASBESTOS N/A

Site 1 of 2 in cluster BA

Actual: ALLSITES:
468 ft. Name: MALONEY GROVE 13
Focus Map: Facility Id: 4987
17

Interaction:	114177
Interaction 1:	I
Interaction 2:	CONSTSWGP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	Maloney Grove 13
Program ID:	WAR303313
Date Interaction:	2015-07-31 00:00:00
Date Interaction 3:	Construction SW GP
Latitude:	47.486393528000001
Longitude:	-121.774176174

ASBESTOS:

Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MALONEY GROVE 13 (Continued)

S118147047

Address:	710 MALONEY GROVE AVE SE BEDROOM, LAUNDRY & BATH
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	SFR
Parent ID:	0
Form ID:	100116##1427Affor633105
Notice Date:	05/08/2015
Start Date:	05/21/2015
Completion Date:	05/22/2015
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:00am
Site Hours End:	2:30pm
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	425.512.8750
Job Site CAS:	Anthony Chase
Project Form Email:	ci@affenv.net
Property Owner Name:	Not reported
Property Owner Agent:	Peter
Property Owner Company:	Affordable Environmental, Inc (ABCN00001427)
Property Owner Address:	PO Box 2993
Property Owner City:	Issaquah
Property Owner State:	WA
Property Owner Zip4:	98027
Property Owner Phone:	2066192992
Job Site Room:	Bedroom, Laundry & Bath
Facility Age:	1970's
Facility Size:	825
Facility Remodel:	1
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	825
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	Drywall
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MALONEY GROVE 13 (Continued)

S118147047

Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	1
Other Resp Pro:	Not reported
Other Resp Pro Text:	PPE Pursuant to task
Comments:	Not reported
Date Time Submitted:	2015-05-08 14:41:33
Submitter IP Address:	73.193.81.219
Region:	2
UBI:	602577245
Notice type:	Initial
Project Type:	Other Square Footage, Sheet Vinyl
Supervisor:	Anthony Chase ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

BA221 MALONEY GROVE 13
Target 710 MALONEY GROVE AVE SE
Property NORTH BEND, WA 98045

FINDS 1018122379
ECHO N/A

Site 2 of 2 in cluster BA

Actual: FINDS:
468 ft. Registry ID: 110064653888
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110064653888
17

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MALONEY GROVE 13 (Continued)

1018122379

Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1018122379
Registry ID: 110064653888
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110064653888>

BB222 ROWLEY ENTERPRISE/ MT. SI
Target 43321 MT. SI ROAD SE
Property NORTH BEND, WA 98045

WA ICR S104487349
N/A

Site 1 of 3 in cluster BB

Actual: ICR:
484 ft. Date Ecology Received Report: 11/19/90
Focus Map: Contaminants Found at Site: Petroleum products
18 Media Contaminated: Sediment, Groundwater
Waste Management: Handling practices
Region: North Western
Type of Report Ecology Received: Interim cleanup report
Site Register Issue: 91-20
County Code: 17
Contact: Not reported
Report Title: Not reported

BB223 ROWLEY ENTERPRISES MT SI
Target 43321 MT SI RD SE
Property NORTH BEND, WA 98045

WA ALLSITES S104971757
WA CSCSL NFA N/A

Site 2 of 3 in cluster BB

Actual: ALLSITES:
484 ft. Name: ROWLEY ENTERPRISES MT SI
Focus Map: Facility Id: 2305
18
Interaction: 4139
Interaction 1: I
Interaction 2: SCS
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: ROWLEY ENTERPRISES MT SI
Program ID: Not reported
Date Interaction: 1991-01-04 00:00:00
Date Interaction 3: State Cleanup Site
Latitude: 47.484914326000002
Longitude: -121.761945228

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROWLEY ENTERPRISES MT SI (Continued)

S104971757

CSCSL NFA:

Name: ROWLEY ENTERPRISES MT SI
Address: 43321 MT SI RD SE
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 2305
CS Id: 1609
NFA Date: 03/27/1992
Alternate Site Names: 43321 MT SI RD SE
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Halogenated Organics
Ground Water: Suspected
Surface Water: Not reported
Soil: Suspected
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.48492
Longitude: -121.76196

Name: ROWLEY ENTERPRISES MT SI
Address: 43321 MT SI RD SE
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 2305
CS Id: 1609
NFA Date: 03/27/1992
Alternate Site Names: 43321 MT SI RD SE
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Metals Priority Pollutants
Ground Water: Suspected
Surface Water: Not reported
Soil: Suspected
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.48492
Longitude: -121.76196

Name: ROWLEY ENTERPRISES MT SI
Address: 43321 MT SI RD SE
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 2305
CS Id: 1609
NFA Date: 03/27/1992
Alternate Site Names: 43321 MT SI RD SE
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Non-Halogenated Solvents
Ground Water: Suspected
Surface Water: Not reported
Soil: Suspected
Sediment: Not reported
Air: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROWLEY ENTERPRISES MT SI (Continued)

S104971757

Bedrock: Not reported
Latitude: 47.48492
Longitude: -121.76196

Name: ROWLEY ENTERPRISES MT SI
Address: 43321 MT SI RD SE
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 2305
CS Id: 1609
NFA Date: 03/27/1992
Alternate Site Names: 43321 MT SI RD SE
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum Products-Unspecified
Ground Water: Remediated
Surface Water: Not reported
Soil: Remediated
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.48492
Longitude: -121.76196

BB224 **ROWLEY ENTERPRISES MT SI**
Target **43321 MT SI RD SE**
Property **NORTH BEND, WA 98045**

FINDS **1007080570**
N/A

Site 3 of 3 in cluster BB

Actual: **484 ft.** **FINDS:**
Focus Map: **18** Registry ID: 110015572904
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015572904

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

225
Target
Property **NORTH BEND, WA**

WA SPILLS **S120916942**
N/A

Actual: **604 ft.** **SPILLS:**
Focus Map: **19** Name: Not reported
Address: Not reported
City,State,Zip: NORTH BEND, WA
Facility ID: 94245
Medium: Land
Material Desc: HYDRAULIC OIL
Material Qty: 15

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S120916942

Material Units: Not reported
Date Received: Not reported
Contact Name: Not reported
Incident Date: 06/20/2017
Incident Category Type: Oil Spill
Incident Category: Oil Spill
Latitude: 47.4851
Longitude: -121.7313
Source Type: Vehicle
Source: Construction/utility vehicle
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: REPUBLIC SERVICES

226

Target
Property

NORTH BEND, WA

WA SPILLS

S118949789
N/A

Actual:
588 ft.

Focus Map:
19

SPILLS:

Name: Not reported
Address: Not reported
City,State,Zip: NORTH BEND, WA
Facility ID: 91432
Medium: Land
Material Desc: Z-UNKNOWN
Material Qty: Not reported
Material Units: Not reported
Date Received: Not reported
Contact Name: Not reported
Incident Date: 11/19/2016
Incident Category Type: Oil Spill
Incident Category: Oil Spill
Latitude: 47.48440
Longitude: -121.73170
Source Type: Vehicle
Source: Other - Vehicle
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

227

Target
Property

GRANITE LAKES QUARRY
MIDDLE FORK RD & GRANITE CREEK RD
NORTH BEND, WA 98045

FINDS

1006797233
N/A

FINDS:

Actual:
488 ft.

Focus Map:
18

Registry ID: 110013672374
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110013672374
Environmental Interest/Information System:
Washington Facility / Site Identification System (WA-FSIS) provides a

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GRANITE LAKES QUARRY (Continued)

1006797233

means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

228	NEAR 11.7 MILE OF E OF 468TH AVENUE SE	US BROWNFIELDS	1023620280
Target	NEAR 11.7 MILE OF E OF 468TH AVENUE SE	FINDS	N/A
Property	NORTH BEND, WA 98045		

US BROWNFIELDS:

Actual:
456 ft.

Focus Map:
17

Name:	NEAR 11.7 MILE OF E OF 468TH AVENUE SE
Address:	NEAR 11.7 MILE OF E OF 468TH AVENUE SE
City,State,Zip:	NORTH BEND, WA 98045
Recipient Name:	Public Health Seattle & King County
Grant Type:	Assessment
Property Number:	2124109001
Parcel size:	1
Latitude:	47.483725
Longitude:	-121.781132
HCM Label:	Not reported
Map Scale:	Not reported
Point of Reference:	Not reported
Highlights:	Not reported
Datum:	Not reported
Acres Property ID:	20541
IC Data Access:	Not reported
Start Date:	Not reported
Redev Completion Date:	Not reported
Completed Date:	Not reported
Acres Cleaned Up:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Assessment Funding:	Not reported
Assessment Funding Source:	Not reported
Redevelopment Funding:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	Not reported
Cleanup Funding Entity:	Not reported
Grant Type:	N/A
Accomplishment Type:	Not reported
Accomplishment Count:	0
Cooperative Agreement Number:	97093401
Start Date:	Not reported
Ownership Entity:	Government
Completion Date:	Not reported
Current Owner:	Jim Franzel, USFS
Did Owner Change:	Not reported
Cleanup Required:	Not reported
Video Available:	Not reported
Photo Available:	Not reported
Institutional Controls Required:	Not reported
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NEAR 11.7 MILE OF E OF 468TH AVENUE SE (Continued)

1023620280

IC Cat. Gov. Controls:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported
IC in place:	U
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Not reported
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NEAR 11.7 MILE OF E OF 468TH AVENUE SE (Continued)

1023620280

mercury cleaned up:	Not reported
Nickel Cleaned Up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Building Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	forest land off hiking trail near a stream
Below Poverty Number:	222
Below Poverty Percent:	13.7%
Median Income:	7120
Median Income Number:	307
Median Income Percent:	18.9%
Vacant Housing Number:	0
Vacant Housing Percent:	.0%
Unemployed Number:	49
Unemployed Percent:	3.0%

FINDS:

Registry ID: 110060678510
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110060678510

Environmental Interest/Information System:

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an federal online database for Brownfields Grantees to electronically submit data directly to EPA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BC229 **CEDAR FALLS DEVELOPMENT**
Target **INTER OF 424TH AVE SE/SE 12TH ST**
Property **NORTH BEND, WA 98045**

FINDS **1015966019**
ECHO **N/A**

Site 1 of 2 in cluster BC

Actual: **FINDS:**
466 ft. Registry ID: 110054911333
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110054911333
17

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1015966019
Registry ID: 110054911333
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110054911333>

BC230 **CEDAR FALLS DEVELOPMENT**
Target **INTER OF 424TH AVE SE SE 12TH ST**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S110764414**
N/A

Site 2 of 2 in cluster BC

Actual: **ALLSITES:**
466 ft. Name: CEDAR FALLS DEVELOPMENT
Focus Map: Facility Id: 9844
17

Interaction: 95887
Interaction 1: I
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Cedar Falls Development
Program ID: WAR124768
Date Interaction: 2011-01-18 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.483036185000003
Longitude: -121.773999152

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

231
Target
Property

LEVEL 3 COMMUNICATIONS INC NORTH BEND
43411 SE NORTH BEND WAY
NORTH BEND, WA 98045

WA ALLSITES
FINDS

1008907253
N/A

Actual:
491 ft.

Focus Map:
18

ALLSITES:

Name: LEVEL 3 COMMUNICATIONS INC NORTH BEND
Facility Id: 9011069
Interaction: 23881
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Not reported
Program ID: CRK000052490
Date Interaction: 2003-09-15 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.482626781999997
Longitude: -121.762044504

FINDS:

Registry ID: 110022935127
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110022935127

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

232
Target
Property

I-90 NORTH BEND CORPORATE PARK
468TH AVE SE BW SE 140TH SE N BEND WAY
NORTH BEND, WA 98045

WA NPDES
S123449791
N/A

Actual:
546 ft.

Focus Map:
19

NPDES:

Name: I-90 NORTH BEND CORPORATE PARK
Address: 468TH AVE SE BW SE 140TH SE N BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Active
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015
Latitude: 47.48226640
Longitude: -121.736423
Permit ID: WAR012243
Permit Version: 3
Permit Status: Active
Permit SubStatus: Coverage Issued
Ecology Contact: Tracie Walters
WRIA: Snohomish
Permit Expiration Date: 12/31/2020
Effective Date: 01/01/2016
Days to Expiration: -443

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BD233 **APPLIED PROFESSIONAL SVCS INC NORTH BEND**
Target **43530 SE NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

RCRA NonGen / NLR **1019910242**
WAH000051652

Site 1 of 4 in cluster BD

Actual:
494 ft.

RCRA NonGen / NLR:

Date form received by agency: 2019-03-05 00:00:00.0

Focus Map:
18

Facility name: APPLIED PROFESSIONAL SVCS INC NORTH BEND

Facility address: 43530 SE NORTH BEND WAY
NORTH BEND, WA 98045

EPA ID: WAH000051652

Contact: STEVE BROWN

Contact address: 43530 SE NORTH BEND WAY
NORTH BEND, WA 98045

Contact country: US

Contact telephone: 425-888-2590

Contact email: STEVEB@APSLOCATES.COM

EPA Region: 10

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: APPLIED PROFESSIONAL SERVICES INC

Owner/operator address: 43530 SE NORTH BEND WAY
NORTH BEND, WA 98045

Owner/operator country: US

Owner/operator telephone: 425-888-2590

Owner/operator email: Not reported

Owner/operator fax: Not reported

Owner/operator extension: Not reported

Legal status: Private

Owner/Operator Type: Operator

Owner/Op start date: 2003-01-01 00:00:00.

Owner/Op end date: Not reported

Owner/operator name: DOUBLE BS LLC

Owner/operator address: 43530 SE NORTH BEND WAY
NORTH BEND, WA 98405

Owner/operator country: US

Owner/operator telephone: 425-888-2590

Owner/operator email: Not reported

Owner/operator fax: Not reported

Owner/operator extension: Not reported

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 2017-12-31 00:00:00.

Owner/Op end date: Not reported

Owner/operator name: BROWN, STEVE B

Owner/operator address: 43530 SE NORTH BEND WAY
NORTH BEND, WA 98045

Owner/operator country: US

Owner/operator telephone: 425-888-2590

Owner/operator email: Not reported

Owner/operator fax: Not reported

Owner/operator extension: Not reported

Legal status: Private

Owner/Operator Type: Owner

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

APPLIED PROFESSIONAL SVCS INC NORTH BEND (Continued)

1019910242

Owner/Op start date: 2005-01-01 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2018-01-10 00:00:00.0
Site name: APPLIED PROFESSIONAL SVCS INC NORTH BEND
Classification: Not a generator, verified

Date form received by agency: 2016-09-29 00:00:00.0
Site name: APPLIED PROFESSIONAL SVCS INC NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

. Waste code: WT01
. Waste name: Washington State Extremely Hazardous Toxic Waste with a toxic constituents concentration greater than or equal to 1.0%, determined by biological testing methods or a book designation procedure.

. Waste code: WT02
. Waste name: Washington State Dangerous Toxic Waste with a toxic constituents concentration greater than or equal to 0.001% and less than 1.0%, determined by biological testing methods or a book designation procedure.

Violation Status: No violations found

BD234 **APPLIED PROFESSIONAL SVCS INC NORTH BEND**
Target **43530 SE NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

WA MANIFEST **S121931310**
N/A

Site 2 of 4 in cluster BD

Actual:
494 ft.

Focus Map:
18

WA MANIFEST:
Name: APPLIED PROFESSIONAL SVCS INC NORTH BEND
Address: 43530 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility Address 2: Not reported
Facility ID: 15772
EPA ID: WAH000051652

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

APPLIED PROFESSIONAL SVCS INC NORTH BEND (Continued)

S121931310

NAICS:	541360
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601684968
Business Type:	Not reported
Mail Name:	Not reported
Mailing Address:	43530 SE North Bend Way
Mailing City,State,Zip:	North Bend, WA 98045
Legal Organization Name:	Brown, Steve B
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	43530 SE North Bend Way
Legal Address 2:	Not reported
Legal City,State,Zip:	North Bend, WA 98045
Legal Phone Number:	(425)888-2590
Legal Effective Date:	01/01/2005
Land Organization Name:	Double BS LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	43530 SE North Bend Way
Land City,State,Zip:	North Bend, WA 98405
Land Phone Number:	(425)888-2590
Operator Organization Name:	Applied Professional Services Inc
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	43530 SE North Bend Way
Operator Address 2:	Not reported
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	(425)888-2590
Operator Effective Date:	01/01/2003
Site Contact:	Not reported
Site Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Site Contact Phone Number:	Not reported
Site Contact Email:	Not reported
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

APPLIED PROFESSIONAL SVCS INC NORTH BEND (Continued)

S121931310

One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	APPLIED PROFESSIONAL SVCS INC NORTH BEND
Address:	43530 SE NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	15772
EPA ID:	WAH000051652
NAICS:	541360
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	No waste generated
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601684968
Business Type:	Utility Locating
Mail Name:	Not reported
Mailing Address:	43530 SE North Bend Way
Mailing City,State,Zip:	North Bend, WA 98045
Legal Organization Name:	Not reported
Legal Organization Type:	Private
Legal Contact:	Steve B Brown
Legal Address:	43530 SE North Bend Way
Legal Address 2:	Not reported
Legal City,State,Zip:	North Bend, WA 98045
Legal Phone Number:	425-888-2590
Legal Effective Date:	01/01/2005
Land Organization Name:	Double BS LLC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

APPLIED PROFESSIONAL SVCS INC NORTH BEND (Continued)

S121931310

Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	43530 SE North Bend Way
Land City,State,Zip:	North Bend, WA 98405
Land Phone Number:	425-888-2590
Operator Organization Name:	Applied Professional Services Inc
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	43530 SE North Bend Way
Operator Address 2:	Not reported
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	425-888-2590
Operator Effective Date:	01/01/2003
Site Contact:	Steve Brown
Site Contact Address:	43530 SE North Bend Way
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	425-888-2590
Site Contact Email:	steveb@apslocates.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

BD235 **APPLIED PROFESSIONAL SVCS INC NORTH BEND**
Target **43530 SE NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

FINDS **1022288038**
ECHO **N/A**

Site 3 of 4 in cluster BD

Actual: **FINDS:**
494 ft. Registry ID: 110069632712
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110069632712
18

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

APPLIED PROFESSIONAL SVCS INC NORTH BEND (Continued)

1022288038

ECHO:

Envid: 1022288038
Registry ID: 110069632712
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110069632712>

BD236 APPLIED PROFESSIONAL SVCS INC NORTH BEND
Target 43530 SE NORTH BEND WAY
Property NORTH BEND, WA 98045

WA ALLSITES S118955262
N/A

Site 4 of 4 in cluster BD

Actual:
494 ft.

ALLSITES:

Focus Map:
18

Name: APPLIED PROFESSIONAL SVCS INC NORTH BEND
Facility Id: 15772
Interaction: 119688
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Applied Professional Svcs Inc North Bend
Program ID: WAH000051652
Date Interaction: 2016-09-29 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.481904071000002
Longitude: -121.758417138

Interaction: 124505
Interaction 1: A
Interaction 2: HWOTHER
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Applied Professional Svcs Inc North Bend
Program ID: WAH000051652
Date Interaction: 2017-12-31 00:00:00
Date Interaction 3: Haz Waste Management Acti
Latitude: 47.481904071000002
Longitude: -121.758417138

BE237 NORTH BEND COTTAGES
Target NORTH BEND, WA 98045
Property NORTH BEND, WA 98045

WA ALLSITES S118344725
N/A

Site 1 of 3 in cluster BE

Actual:
491 ft.

ALLSITES:

Focus Map:
18

Name: NORTH BEND COTTAGES
Facility Id: 15681
Interaction: 115769
Interaction 1: I
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND COTTAGES (Continued)

S118344725

Facility Alt.: North Bend Cottages
Program ID: WAR303546
Date Interaction: 2015-11-02 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.480955721000001
Longitude: -121.76142810100001

BE238 NORTH BEND COTTAGES
Target UNSPECIFIED
Property NORTH BEND, WA 98045

FINDS 1018314215
ECHO N/A

Site 2 of 3 in cluster BE

Actual: FINDS:
492 ft. Registry ID: 110067183559
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110067183559
18

Environmental Interest/Information System:

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[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1018314215
Registry ID: 110067183559
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110067183559>

239 DUMP SITE
Target 444TH AVE SE
Property NORTH BEND, WA 98045

WA ALLSITES S110037712
N/A

ALLSITES:

Actual: Name: DUMP SITE
511 ft. Facility Id: 12463
Focus Map: Interaction: 80511
18 Interaction 1: A
Interaction 2: RSVP
Ecology Program: HAZWASTE
Program Data: RSVP
Facility Alt.: Dump Site
Program ID: Not reported
Date Interaction: 2008-10-01 00:00:00
Date Interaction 3: Revised Site Visit Progra
Latitude: 47.480865782000002
Longitude: -121.747785732

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

240
Target
Property **CEDAR FALLS SOUTH**
13303 427TH AVE SE
NORTH BEND, WA 98045

WA ALLSITES **S120066523**
WA NPDES **N/A**

Actual:
475 ft.

Focus Map:
18

ALLSITES:

Name: CEDAR FALLS SOUTH
Facility Id: 9188

Interaction: 121720
Interaction 1: A
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Cedar Falls South
Program ID: WAR305260
Date Interaction: 2017-03-03 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.480654512999998
Longitude: -121.77096569

NPDES:

Name: CEDAR FALLS SOUTH
Address: 13303 427TH AVE SE
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR305260
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 04/17/2017
Days to Expiration: -443

241
Target
Property **13306 427TH AVE SE**
NORTH BEND, WA 98045

WA ASBESTOS **S121065190**
N/A

Actual:
479 ft.

Focus Map:
18

ASBESTOS:

Name: Not reported
Address: 13306 427TH AVE SE
City,State,Zip: NORTH BEND, WA 98045
Facility Type: Residential
Parent ID: 0
Form ID: 146537##1577Puget325547
Notice Date: 07/25/2017
Start Date: 07/31/2017
Completion Date: 08/03/2017
Initial: 1
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121065190

Emergency:	Not reported
Site Hours Start:	8:00 a.m.
Site Hours End:	5:00 p.m.
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	1
Thursday:	1
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	4257576872
Job Site CAS:	Jason Shearouse
Project Form Email:	dan@pugetsoundabatement.com
Property Owner Name:	Mike Day
Property Owner Agent:	Not reported
Property Owner Company:	Puget Sound Abatement LLC (ABCN00001577)
Property Owner Address:	13306 427th Ave SE
Property Owner City:	North Bend
Property Owner State:	WA
Property Owner Zip4:	98045
Property Owner Phone:	425-757-6873
Job Site Room:	Not reported
Facility Age:	1975
Facility Size:	1980
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	4633
Fireproofing:	Not reported
Popcorn Ceiling:	1
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	Drywall texture
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121065190

Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	1
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Need to abate on these days due to contractor's scheduling
Date Time Submitted:	2017-07-25 13:46:14
Submitter IP Address:	65.152.183.35
Region:	2
UBI:	603345715
Notice type:	Initial
Project Type:	Other Square Footage, Popcorn Ceiling
Supervisor:	Jason Shearouse ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	13306 427TH AVE SE
City,State,Zip:	NORTHBEND, WA 98045
Facility Type:	Residential
Parent ID:	0
Form ID:	154606##1643SEATT829876
Notice Date:	01/28/2018
Start Date:	01/29/2018
Completion Date:	01/31/2018
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	1
Site Hours Start:	9:30
Site Hours End:	3:00
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	1
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	206-557-0369
Job Site CAS:	Juan Espinoza
Project Form Email:	seattleasbestos@hotmail.com
Property Owner Name:	John Day Homes LLC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121065190

Property Owner Agent:	Not reported
Property Owner Company:	SEATTLE ASBESTOS ENVIRONMENTAL (ABCN00001643)
Property Owner Address:	P.O. box 2930
Property Owner City:	Northbend
Property Owner State:	WA
Property Owner Zip4:	98045
Property Owner Phone:	425-941-8019
Job Site Room:	Not reported
Facility Age:	1975
Facility Size:	1650
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	3000
Fireproofing:	Not reported
Popcorn Ceiling:	1
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	drywall
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	1
PAPR:	Not reported
Type C Continuous:	1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S121065190

Type C Pressure: Not reported
Other Resp Pro: Not reported
Other Resp Pro Text: Not reported
Comments: The city wants the home down because it is out of the city limits there is a problem with squatters and it is not safe.
Date Time Submitted: 2018-01-28 21:43:28
Submitter IP Address: 50.125.82.114
Region: 2
UBI: 604120928
Notice type: Initial
Project Type: Other Square Footage, Popcorn Ceiling
Supervisor: Juan Espinoza ()
Supervisor Phone: Not reported
Certificate Status: ACTIVE

BE242

Target
Property

CEDAR FALLS WAY
NORTH BEND, WA

WA SPILLS

S122369746

N/A

Site 3 of 3 in cluster BE

Actual:
492 ft.

Focus Map:
18

SPILLS:
Name: Not reported
Address: CEDAR FALLS WAY
City,State,Zip: NORTH BEND, WA
Facility ID: 99891
Medium: Not reported
Material Desc: OILY WATER MIXTURE
Material Qty: 0.5
Material Units: Gals
Date Received: Not reported
Contact Name: Not reported
Incident Date: 04/13/2018
Incident Category Type: Oil Spill
Incident Category: Not reported
Latitude: 47.48061
Longitude: -121.76099
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

243

Target
Property

CEDAR RIVER PARTNERS LLC
44124 SE NORTH BEND WAY
NORTH BEND, WA 98045

FINDS
ECHO

1025477031
N/A

FINDS:

Actual:
502 ft.

Focus Map:
18

Registry ID: 110070554524
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110070554524
Environmental Interest/Information System:
US National Pollutant Discharge Elimination System (NPDES) module of

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CEDAR RIVER PARTNERS LLC (Continued)

1025477031

the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1025477031
Registry ID: 110070554524
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110070554524>

BF244 **MT SI VISTA (I 1) (D90697)**
Target **13315 433RD CT SE**
Property **NORTH BEND, WA 98045**

WA UIC **S121083684**
N/A

Site 1 of 3 in cluster BF

Actual: **489 ft.** **UIC:**
Focus Map: **18** **Name:** MT SI VISTA (I 1) (D90697)
Address: 13315 433RD CT SE
City,State,Zip: NORTH BEND, WA 98045
Site Number: 19760
Owner Name: King County WLRD-DSS - Mt Si Vista (I-1) (D90697)
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.480291
Longitude: 122.76235
Well Name: 14130
Registration Type: Municipal Stormwater
Construction Date: 06/20/1979
Construction Type: Drywell
Depth: 2

BF245
Target **13315 433RD CT SE KITCHEN**
Property **NORTH BEND, WA**

WA ASBESTOS **S125590558**
N/A

Site 2 of 3 in cluster BF

Actual: **489 ft.** **ASBESTOS:**
Focus Map: **18** **Name:** Not reported
Address: 13315 433RD CT SE KITCHEN
City,State,Zip: NORTH BEND, WA
Facility Type: Not reported
Parent ID: Not reported
Form ID: 50724##1210Therm843830
Notice Date: 07/13/2011
Start Date: 07/26/2011
Completion Date: 07/26/2011
Initial: Not reported
Amended: Not reported
On Hold: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590558

Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590558

Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Sheet Vinyl
Supervisor:	David Agosto ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	13315 433RD CT SE KITCHEN
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	51159##1210Therm737235
Notice Date:	07/26/2011
Start Date:	07/26/2011
Completion Date:	07/26/2011
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590558

Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590558

Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Sheet Vinyl
Supervisor:	David Agosto ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

BF246 **MT SI VISTA (I 1) (D90697)**
Target **13315 433RD CT SE**
Property **NORTH BEND, WA 98045**

WA UIC **S121083685**
N/A

Site 3 of 3 in cluster BF

Actual: 489 ft.	UIC:	
	Name:	MT SI VISTA (I 1) (D90697)
Focus Map: 18	Address:	13315 433RD CT SE
	City,State,Zip:	NORTH BEND, WA 98045
	Site Number:	19760
	Owner Name:	King County WLRD-DSS - Mt Si Vista (I-1) (D90697)
	Well Status:	Active
	EPA Well Type:	5H1 - Stormwater
	Latitude:	47.480293
	Longitude:	122.7619
	Well Name:	14130-2
	Registration Type:	Municipal Stormwater
	Construction Date:	06/20/1979
	Construction Type:	Drywell
	Depth:	2

BG247 **BPA NORTH BEND RADIO STATION**
Target **END OF RATTLESNAKE MT RD**
Property **SNOQUALMIE, WA 98065**

WA ALLSITES **S111289319**
N/A

Site 1 of 4 in cluster BG

Actual: 494 ft.	ALLSITES:	
	Name:	BPA NORTH BEND RADIO STATION
Focus Map: 18	Facility Id:	23996
	Interaction:	98054
	Interaction 1:	I
	Interaction 2:	TIER2
	Ecology Program:	HAZWASTE
	Program Data:	EPCRA
	Facility Alt.:	BPA NORTH BEND RADIO STATION
	Program ID:	CRK000077180
	Date Interaction:	2011-02-10 00:00:00
	Date Interaction 3:	Emergency/Haz Chem Rpt TI

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BPA NORTH BEND RADIO STATION (Continued)

S111289319

Latitude: 47.479715325999997
Longitude: -121.75998722999999

BG248 **PSE RATTLESNAKE MT MIC**
Target **1441 389TH AVE SE**
Property **NORTH BEND, WA 98045**

WA ALLSITES **1007069796**
FINDS **N/A**

Site 2 of 4 in cluster BG

Actual: **ALLSITES:**
494 ft. Name: PSE RATTLESNAKE MT MIC
Focus Map: Facility Id: 49247823
18

Interaction: 47886
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Not reported
Program ID: CRK000010130
Date Interaction: 1988-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.479715325999997
Longitude: -121.75998722999999

FINDS:

Registry ID: 110015464013
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015464013

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

BG249 **AT&T WA0330 RTGWAQ3550**
Target **RATTLESNAKE LEDGE RR**
Property **NORTH BEND, WA 98045**

WA ALLSITES **1007072393**
FINDS **N/A**

Site 3 of 4 in cluster BG

Actual: **ALLSITES:**
494 ft. Name: AT&T WA0330 RTGWAQ3550
Focus Map: Facility Id: 33971595
18

Interaction: 38968
Interaction 1: I
Interaction 2: TIER2
Ecology Program: HAZWASTE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AT&T WA0330 RTGWAQ3550 (Continued)

1007072393

Program Data: EPCRA
Facility Alt.: Not reported
Program ID: CRK000022620
Date Interaction: 1989-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.47971532599997
Longitude: -121.75998722999999

FINDS:

Registry ID: 110015490182
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015490182

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

BG250 AT&T NORTHBEND WA5240 GRCAWAR0010
Target 53000 SE FROUSE RIDGE RD
Property NORTH BEND, WA 98045

WA ALLSITES FINDS 1007070504 N/A

Site 4 of 4 in cluster BG

Actual: ALLSITES:
494 ft. Name: AT&T NORTHBEND WA5240 GRCAWAR0010
Focus Map: Facility Id: 44895196
18

Interaction: 45461
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Not reported
Program ID: CRK000029210
Date Interaction: 1991-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.47971532599997
Longitude: -121.75998722999999

FINDS:

Registry ID: 110015471158
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015471158

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AT&T NORTHBEND WA5240 GRCAWAR0010 (Continued)

1007070504

Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

251
Target
Property

TANNER ROAD SUBDIVISION
NORTH BEND, WA 98045

WA ALLSITES **S121304818**
N/A

Actual:
536 ft.

Focus Map:
19

ALLSITES:

Name:	TANNER ROAD SUBDIVISION
Facility Id:	7047
Interaction:	123655
Interaction 1:	A
Interaction 2:	CONSTSWGP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	Tanner Road Subdivision
Program ID:	WAR305910
Date Interaction:	2017-09-01 00:00:00
Date Interaction 3:	Construction SW GP
Latitude:	47.479499408999999
Longitude:	-121.73644065800001

252
Target
Property

KING COUNTY DEPT OF TRANSPORTATION - 4430 337 PL S
4430 337 PL SE
RENTON, WA

WA UIC **S121083678**
N/A

Actual:
488 ft.

Focus Map:
18

UIC:

Name:	KING COUNTY DEPT OF TRANSPORTATION - 4430 337 PL SE
Address:	4430 337 PL SE
City,State,Zip:	RENTON, WA
Site Number:	30271
Owner Name:	King County Dept of Transportation
Well Status:	Active
EPA Well Type:	5H1 - Stormwater
Latitude:	47.47944
Longitude:	121.76364
Well Name:	2-0769
Registration Type:	Municipal Stormwater
Construction Date:	10/01/1992
Construction Type:	Infiltration trench with perforated pipe
Depth:	3

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BH253 **CHINOOK LUMBER**
Target **436TH AVE SE @ CEDAR FALLS WAY**
Property **NORTH BEND, WA 98045**

WA UIC **S121083677**
N/A

Site 1 of 4 in cluster BH

Actual: **497 ft.** **UIC:**
Focus Map: **18** **Name:** CHINOOK LUMBER
Address: 436TH AVE SE @ CEDAR FALLS WAY
City,State,Zip: NORTH BEND, WA 98045
Site Number: 33530
Owner Name: Chinook Lumber
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.479233
Longitude: 121.75706
Well Name: IT-3
Registration Type: Industrial or Commercial Facilities
Construction Date: 06/01/2017
Construction Type: Infiltration trench with perforated pipe
Depth: 5

BH254 **CHINOOK LUMBER**
Target **436TH AVE SE @ CEDAR FALLS WAY**
Property **NORTH BEND, WA 98045**

WA UIC **S121083674**
N/A

Site 2 of 4 in cluster BH

Actual: **497 ft.** **UIC:**
Focus Map: **18** **Name:** CHINOOK LUMBER
Address: 436TH AVE SE @ CEDAR FALLS WAY
City,State,Zip: NORTH BEND, WA 98045
Site Number: 33530
Owner Name: Chinook Lumber
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.478789
Longitude: 121.75706
Well Name: IT-4
Registration Type: Industrial or Commercial Facilities
Construction Date: 06/01/2017
Construction Type: Infiltration trench with perforated pipe
Depth: 5

BH255 **CHINOOK LUMBER**
Target **436TH AVE SE @ CEDAR FALLS WAY**
Property **NORTH BEND, WA 98045**

WA UIC **S121083676**
N/A

Site 3 of 4 in cluster BH

Actual: **497 ft.** **UIC:**
Focus Map: **18** **Name:** CHINOOK LUMBER
Address: 436TH AVE SE @ CEDAR FALLS WAY
City,State,Zip: NORTH BEND, WA 98045
Site Number: 33530
Owner Name: Chinook Lumber
Well Status: Active
EPA Well Type: 5H1 - Stormwater

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHINOOK LUMBER (Continued)

S121083676

Latitude: 47.478954
Longitude: 121.75683
Well Name: IT-2
Registration Type: Industrial or Commercial Facilities
Construction Date: 06/01/2017
Construction Type: Infiltration trench with perforated pipe
Depth: 11

BH256 CHINOOK LUMBER
Target 436TH AVE SE @ CEDAR FALLS WAY
Property NORTH BEND, WA 98045

WA UIC S121083675
N/A

Site 4 of 4 in cluster BH

Actual: UIC:
497 ft. Name: CHINOOK LUMBER
Focus Map: Address: 436TH AVE SE @ CEDAR FALLS WAY
18 City,State,Zip: NORTH BEND, WA 98045
Site Number: 33530
Owner Name: Chinook Lumber
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.478926
Longitude: 121.75773
Well Name: IT-1
Registration Type: Industrial or Commercial Facilities
Construction Date: 06/01/2017
Construction Type: Infiltration trench with perforated pipe
Depth: 10

BI257 SUN RISE VIEW
Target 42621 SE 134TH PL
Property NORTH BEND, WA 98045

FINDS 1024707067
ECHO N/A

Site 1 of 3 in cluster BI

Actual: FINDS:
480 ft. Registry ID: 110070501604
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110070501604
18

Environmental Interest/Information System:

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1024707067
Registry ID: 110070501604

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SUN RISE VIEW (Continued)

1024707067

DFR URL:

<http://echo.epa.gov/detailed-facility-report?fid=110070501604>

BI258

**Target
Property**

**42621 134TH PL
NORTH BEND, WA**

WA ASBESTOS

**S123677951
N/A**

Site 2 of 3 in cluster BI

**Actual:
480 ft.**

**Focus Map:
18**

ASBESTOS:

Name:	Not reported
Address:	42621 134TH PL
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	134981#395176398
Notice Date:	12/10/2018
Start Date:	12/20/2018
Completion Date:	12/21/2018
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	AFFORDABLE ENVIRONMENTAL, INC (MOUNTLAKE TERRACE) (ABCN00001427)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S123677951

Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	602577245
Notice type:	Initial
Project Type:	Sheet Vinyl
Supervisor:	Anthony Chase (ABAS00008156) ACTIVE
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BI259 **SUN RISE VIEW**
Target **42621 SE 134TH PL**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S123402585**
WA NPDES **N/A**

Site 3 of 3 in cluster BI

Actual: **ALLSITES:**
480 ft. **Name:** **SUN RISE VIEW**
Focus Map: **Facility Id:** **72303**
18

NPDES:
Name: **SUN RISE VIEW**
Address: **42621 SE 134TH PL**
City,State,Zip: **NORTH BEND, WA 98045**
Facility Status: **Not reported**
Facility Type: **Construction SW GP**
Admin Region: **Headquarters**
Date Issued: **11/18/2015**
Latitude: **Not reported**
Longitude: **Not reported**
Permit ID: **WAR307403**
Permit Version: **Not reported**
Permit Status: **Active**
Permit SubStatus: **Not reported**
Ecology Contact: **Not reported**
WRIA: **Not reported**
Permit Expiration Date: **12/31/2020**
Effective Date: **01/09/2019**
Days to Expiration: **-443**

260 **MT SI VISTA (I 2) (D90698)**
Target **13500 434RD AVE SE**
Property **NORTH BEND, WA 98045**

WA UIC **S114423598**
N/A

Actual: **UIC:**
495 ft. **Name:** **MT SI VISTA (I 2) (D90698)**
Focus Map: **Address:** **13500 434RD AVE SE**
18 **City,State,Zip:** **NORTH BEND, WA 98045**
Site Number: **19761**
Owner Name: **King County WLRD-DSS - Mt Si Vista (I-2) (D90698)**
Well Status: **Active**
EPA Well Type: **5H1 - Stormwater**
Latitude: **47.478889**
Longitude: **121.759722**
Well Name: **14131**
Registration Type: **Municipal Stormwater**
Construction Date: **06/20/1979**
Construction Type: **Drywell**
Depth: **2**

Map ID	MAP FINDINGS			
Direction				
Distance				
Elevation	Site	Database(s)	EDR ID Number	EPA ID Number

261
Target **CHINOOK LUMBER**
Property **436TH AVE SE CEDAR FALLS WAY**
NORTH BEND, WA 98045

WA ALLSITES **S121969935**
N/A

Actual: **500 ft.**
Focus Map: **18**

ALLSITES:
Name: CHINOOK LUMBER
Facility Id: 17491

Interaction: 122195
Interaction 1: A
Interaction 2: UIC
Ecology Program: WATQUAL
Program Data: UIC
Facility Alt.: Chinook Lumber
Program ID: 33530
Date Interaction: 2017-06-01 00:00:00
Date Interaction 3: Underground Injection Con
Latitude: 47.478601980999997
Longitude: -121.758258539

262
Target **13513 434TH AVE SE, BATHROOM**
Property **NORTH BEND, WA**

WA ASBESTOS **S125590643**
N/A

Actual: **492 ft.**
Focus Map: **18**

ASBESTOS:
Name: Not reported
Address: 13513 434TH AVE SE, BATHROOM
City,State,Zip: NORTH BEND, WA
Facility Type: Not reported
Parent ID: Not reported
Form ID: 40446##1487Leada414145
Notice Date: 07/29/2010
Start Date: 07/28/2010
Completion Date: 07/28/2010
Initial: Not reported
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: Not reported
Site Hours End: Not reported
Sunday: Not reported
Monday: Not reported
Tuesday: Not reported
Wednesday: Not reported
Thursday: Not reported
Friday: Not reported
Saturday: Not reported
Contractor ID: Not reported
Phone: Not reported
Job Site CAS: Not reported
Project Form Email: Not reported
Property Owner Name: Not reported
Property Owner Agent: Not reported
Property Owner Company: Lead and Asbestos Removal Inc (ABCN00001487)
Property Owner Address: Not reported
Property Owner City: Not reported
Property Owner State: Not reported
Property Owner Zip4: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590643

Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590643

Region:	2
UBI:	602878044
Notice type:	Initial
Project Type:	Vinyl Asbestos Tile
Supervisor:	Arturo Vargas ()
Supervisor Phone:	Not reported
Certificate Status:	EXPIRED
Name:	Not reported
Address:	13513 434TH AVE SE, BATHROOM
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	40409##1487Leada304909
Notice Date:	07/27/2010
Start Date:	07/28/2010
Completion Date:	07/28/2010
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Lead and Asbestos Removal Inc (ABCN00001487)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590643

Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	602878044
Notice type:	Initial
Project Type:	Vinyl Asbestos Tile
Supervisor:	Arturo Vargas ()
Supervisor Phone:	Not reported
Certificate Status:	EXPIRED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BJ263 **3 LAKES QUARRY**
Target **43909 SE TANNER RD**
Property **NORTH BEND, WA 98045**

ABANDONED MINES **1018248660**
 N/A

Site 1 of 2 in cluster BJ

Actual: **ABANDONED MINES:**
505 ft. Mine ID: 4503566
Focus Map: Mine Name: 3 LAKES QUARRY
18 Mine Address: 43909 SE TANNER RD
 City,State,Zip: NORTH BEND, WA 98045
 Primary SIC Code: Not reported
 Mine Type: Surface
 Mine Status Description: Abandoned
 Mine Status Date: 6/4/2006
 Coal (C) or Metal (M) Mine: M
 Controller ID: 0044101
 Controller Name: Geoff D Nestor
 Operator ID: 0053312
 Operator name: GDN Enterprises, Inc
 Address of Record Street: 30385 SE High Point Way #C
 Address of Record PO Box: Not reported
 Address of Record City: Issaquah
 Address of Record State: WA
 Address of Record Zip Code: 98045
 Assessment Address Street: 30385 SE High Point Way #C
 Assessment Address PO Box: Not reported
 Assessment Address City: ISSAQUAH
 Assessment Address State: WA
 Assessment Address Zip Code: 98045
 Mine Health and Safety Address Street: 43909 SE Tanner Rd
 Mine Health and Safety Address PO Box: Not reported
 Mine Health and Safety Address City: North Bend
 Mine Health and Safety Address State: WA
 Mine Health and Safety Address Zip Code: 98045
 Latitude: Not reported
 Longitude: Not reported

BJ264 **3 LAKES QUARRY**
Target **43909 SE TANNER RD**
Property **NORTH BEND, WA 98045**

US MINES **1024926209**
 N/A

Site 2 of 2 in cluster BJ

Actual: **MINES VIOLATIONS:**
505 ft. Name: 3 LAKES QUARRY
Focus Map: Address: 43909 SE TANNER RD
18 City,State,Zip: NORTH BEND, WA 98045
 Facility ID: Not reported

MINES VIOLATIONS:
 Violation Number: 6344594
 Mine ID: 4503566
 Contractor ID: Not reported
 Date Issued: 06/28/2004
 Action Type: 104(a)
 Type of Issue: Citation
 S and S: N
 Term Date: 06/28/2004
 Title 30 Code of Federal Regulations: 56.1000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

3 LAKES QUARRY (Continued)

1024926209

Proposed Penalty:	60.00
Assessment Amount:	60.00
Paid Penalty Amount:	60.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2004
Address Type:	MineLocation
PO Box:	Not reported
Address:	43909 SE TANNER RD
City:	NORTH BEND
State:	WA
Operator:	GDN Enterprises, Inc
Zip:	98045
Mine Controller Name:	Geoff D Nestor
Name:	3 LAKES QUARRY
Ownership Date:	06/24/2004
Mine Status:	Abandoned
Status Date:	06/04/2006
Primary Site Description:	Crushed, Broken Stone NEC
Mine Type:	Surface
State 2:	WA
County:	KING
Violation Number:	6355912
Mine ID:	4503566
Contractor ID:	Not reported
Date Issued:	01/10/2005
Action Type:	104(a)
Type of Issue:	Citation
S and S:	N
Term Date:	01/10/2005
Title 30 Code of Federal Regulations:	50.30(a)
Proposed Penalty:	60.00
Assessment Amount:	60.00
Paid Penalty Amount:	0.00
Assessment Case Status:	Proposed
Assessment Status:	Received
Year:	2005
Address Type:	MineLocation
PO Box:	Not reported
Address:	43909 SE TANNER RD
City:	NORTH BEND
State:	WA
Operator:	GDN Enterprises, Inc
Zip:	98045
Mine Controller Name:	Geoff D Nestor
Name:	3 LAKES QUARRY
Ownership Date:	06/24/2004
Mine Status:	Abandoned
Status Date:	06/04/2006
Primary Site Description:	Crushed, Broken Stone NEC
Mine Type:	Surface
State 2:	WA
County:	KING
Violation Number:	6363402
Mine ID:	4503566

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

3 LAKES QUARRY (Continued)

1024926209

Contractor ID:	Not reported
Date Issued:	06/28/2004
Action Type:	104(a)
Type of Issue:	Citation
S and S:	N
Term Date:	07/20/2004
Title 30 Code of Federal Regulations:	46.3(a)
Proposed Penalty:	60.00
Assessment Amount:	60.00
Paid Penalty Amount:	60.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2004
Address Type:	MineLocation
PO Box:	Not reported
Address:	43909 SE TANNER RD
City:	NORTH BEND
State:	WA
Operator:	GDN Enterprises, Inc
Zip:	98045
Mine Controller Name:	Geoff D Nestor
Name:	3 LAKES QUARRY
Ownership Date:	06/24/2004
Mine Status:	Abandoned
Status Date:	06/04/2006
Primary Site Description:	Crushed, Broken Stone NEC
Mine Type:	Surface
State 2:	WA
County:	KING
Violation Number:	6363425
Mine ID:	4503566
Contractor ID:	Not reported
Date Issued:	09/08/2004
Action Type:	104(a)
Type of Issue:	Citation
S and S:	N
Term Date:	12/13/2004
Title 30 Code of Federal Regulations:	56.18010
Proposed Penalty:	60.00
Assessment Amount:	60.00
Paid Penalty Amount:	60.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2004
Address Type:	MineLocation
PO Box:	Not reported
Address:	43909 SE TANNER RD
City:	NORTH BEND
State:	WA
Operator:	GDN Enterprises, Inc
Zip:	98045
Mine Controller Name:	Geoff D Nestor
Name:	3 LAKES QUARRY
Ownership Date:	06/24/2004
Mine Status:	Abandoned
Status Date:	06/04/2006

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

3 LAKES QUARRY (Continued)

1024926209

Primary Site Description: Crushed, Broken Stone NEC
 Mine Type: Surface
 State 2: WA
 County: KING

 Violation Number: 6363426
 Mine ID: 4503566
 Contractor ID: Not reported
 Date Issued: 09/08/2004
 Action Type: 104(a)
 Type of Issue: Citation
 S and S: N
 Term Date: 09/08/2004
 Title 30 Code of Federal Regulations: 50.10
 Proposed Penalty: 60.00
 Assessment Amount: 60.00
 Paid Penalty Amount: 60.00
 Assessment Case Status: Proposed
 Assessment Status: Closed
 Year: 2004
 Address Type: MineLocation
 PO Box: Not reported
 Address: 43909 SE TANNER RD
 City: NORTH BEND
 State: WA
 Operator: GDN Enterprises, Inc
 Zip: 98045
 Mine Controller Name: Geoff D Nestor
 Name: 3 LAKES QUARRY
 Ownership Date: 06/24/2004
 Mine Status: Abandoned
 Status Date: 06/04/2006
 Primary Site Description: Crushed, Broken Stone NEC
 Mine Type: Surface
 State 2: WA
 County: KING

265 **CEDAR RIVER PARTNERS LLC**
Target **44124 SE NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S123790140**
WA ASBESTOS **N/A**
WA NPDES

ALLSITES:

Name: CEDAR RIVER PARTNERS LLC
 Facility Id: 69013

Actual:
506 ft.

Focus Map:
18

ASBESTOS:

Name: Not reported
 Address: 44124 SE NORTH BEND WAY
 City,State,Zip: NORTH BEND, WA
 Facility Type: Not reported
 Parent ID: Not reported
 Form ID: 145712#339600036
 Notice Date: 07/30/2019
 Start Date: 07/22/2019
 Completion Date: 08/06/2019
 Initial: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CEDAR RIVER PARTNERS LLC (Continued)

S123790140

Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	WRECKING BALL DEMOLITION, LLC (EVERETT) (ABCN00001436)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CEDAR RIVER PARTNERS LLC (Continued)

S123790140

Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601878379
Notice type:	Initial
Project Type:	Cement Asbestos Board (CAB), Popcorn Ceiling
Supervisor:	Will McIntosh (ABAS00034089) ACTIVE
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	44124 SE NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	145712#339600036
Notice Date:	07/12/2019
Start Date:	07/22/2019
Completion Date:	07/26/2019
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CEDAR RIVER PARTNERS LLC (Continued)

S123790140

Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	WRECKING BALL DEMOLITION, LLC (EVERETT) (ABCN00001436)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CEDAR RIVER PARTNERS LLC (Continued)

S123790140

Full Face APR: Not reported
PAPR: Not reported
Type C Continuous: Not reported
Type C Pressure: Not reported
Other Resp Pro: Not reported
Other Resp Pro Text: Not reported
Comments: Not reported
Date Time Submitted: Not reported
Submitter IP Address: Not reported
Region: 2
UBI: 601878379
Notice type: Initial
Project Type: Cement Asbestos Board (CAB), Popcorn Ceiling
Supervisor: Cody Chestnut (ABAS00028791) ACTIVE
Supervisor Phone: Not reported
Certificate Status: ACTIVE

NPDES:

Name: CEDAR RIVER PARTNERS, LLC
Address: 44124 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR307958
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 05/27/2019
Days to Expiration: -443

266
Target
Property

MT SI VISTA (I 3) (D90699)
13532 433RD PLACE SE
NORTH BEND, WA 98045

WA UIC **S113852153**
N/A

UIC:

Actual:
491 ft.
Focus Map:
18

Name: MT SI VISTA (I 3) (D90699)
Address: 13532 433RD PLACE SE
City,State,Zip: NORTH BEND, WA 98045
Site Number: 19762
Owner Name: King County WLRD-DSS - Mt Si Vista (I-3) (D90699)
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.478333
Longitude: 121.760833
Well Name: 14132
Registration Type: Municipal Stormwater
Construction Date: 06/20/1979
Construction Type: Other
Depth: 2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BK267 **ALLIED BLDG SUPPLIES**
Target **43516 SE 136TH ST**
Property **NORTH BEND, WA**

WA SPILLS **S107154187**
N/A

Site 1 of 8 in cluster BK

Actual: **497 ft.** **SPILLS:**
Focus Map: **18** **Name:** ALLIED BLDG SUPPLIES
Address: 43516 SE 136TH ST
City,State,Zip: NORTH BEND, WA
Facility ID: 550140
Medium: Not reported
Material Desc: PETROLEUM - HYDRAULIC OIL
Material Qty: 1
Material Units: UNKNOWN
Date Received: 08/19/2005
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

BK268 **RIVER RUN**
Target **43600 SE 136TH STREET**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S121442368**
WA NPDES **N/A**

Site 2 of 8 in cluster BK

Actual: **497 ft.** **ALLSITES:**
Focus Map: **18** **Name:** RIVER RUN
Facility Id: 30375
Interaction: 124864
Interaction 1: A
Interaction 2: UIC
Ecology Program: WATQUAL
Program Data: UIC
Facility Alt.: River Run
Program ID: 33837
Date Interaction: 2018-05-01 00:00:00
Date Interaction 3: Underground Injection Con
Latitude: 47.477737470000001
Longitude: -121.75884481600001

Name: RIVER RUN 2
Facility Id: 77447

NPDES:
Name: RIVER RUN 2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIVER RUN (Continued)

S121442368

Address: 43600 SE 136TH ST
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR306832
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 07/31/2018
Days to Expiration: -443

BK269 RIVER RUN
Target 43600 SE 136TH STREET
Property NORTH BEND, WA 98045

WA UIC S121928366
N/A

Site 3 of 8 in cluster BK

Actual: UIC:
497 ft.
Focus Map: Name: RIVER RUN
18 Address: 43600 SE 136TH STREET
City,State,Zip: NORTH BEND, WA 98045
Site Number: 33837
Owner Name: North Bend Associates, LLC
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.478249
Longitude: 121.75672
Well Name: Basin 2
Registration Type: Non-Municipal Stormwater
Construction Date: 05/01/2018
Construction Type: Infiltration trench with perforated pipe
Depth: 5

BK270 RIVER RUN
Target 43600 SE 136TH STREET
Property NORTH BEND, WA 98045

WA UIC S121928364
N/A

Site 4 of 8 in cluster BK

Actual: UIC:
497 ft.
Focus Map: Name: RIVER RUN
18 Address: 43600 SE 136TH STREET
City,State,Zip: NORTH BEND, WA 98045
Site Number: 33837
Owner Name: North Bend Associates, LLC
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.478132
Longitude: 121.7568

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIVER RUN (Continued)

S121928364

Well Name: Basin 4
Registration Type: Non-Municipal Stormwater
Construction Date: 05/01/2018
Construction Type: Infiltration trench with perforated pipe
Depth: 6

BK271 RIVER RUN
Target 43600 SE 136TH STREET
Property NORTH BEND, WA 98045

WA UIC S121928365
N/A

Site 5 of 8 in cluster BK

Actual: UIC:
497 ft. Name: RIVER RUN
Focus Map: Address: 43600 SE 136TH STREET
18 City,State,Zip: NORTH BEND, WA 98045
Site Number: 33837
Owner Name: North Bend Associates, LLC
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.478216
Longitude: 121.75803
Well Name: Basin 1
Registration Type: Non-Municipal Stormwater
Construction Date: 05/01/2018
Construction Type: Infiltration trench with perforated pipe
Depth: 6

BK272 RIVER RUN
Target 43600 SE 136TH STREET
Property NORTH BEND, WA 98045

WA UIC S121928361
N/A

Site 6 of 8 in cluster BK

Actual: UIC:
497 ft. Name: RIVER RUN
Focus Map: Address: 43600 SE 136TH STREET
18 City,State,Zip: NORTH BEND, WA 98045
Site Number: 33837
Owner Name: North Bend Associates, LLC
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.477852
Longitude: 121.75674
Well Name: Basin 6
Registration Type: Non-Municipal Stormwater
Construction Date: 05/01/2018
Construction Type: Infiltration trench with perforated pipe
Depth: 5

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BK273 **RIVER RUN**
Target **43600 SE 136TH STREET**
Property **NORTH BEND, WA 98045**

WA UIC **S121928362**
N/A

Site 7 of 8 in cluster BK

Actual:
497 ft.

UIC:

Focus Map:
18

Name: RIVER RUN
Address: 43600 SE 136TH STREET
City,State,Zip: NORTH BEND, WA 98045
Site Number: 33837
Owner Name: North Bend Associates, LLC
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.477923
Longitude: 121.75764
Well Name: Basin 7
Registration Type: Non-Municipal Stormwater
Construction Date: 05/01/2018
Construction Type: Infiltration trench with perforated pipe
Depth: 6

Name: RIVER RUN
Address: 43600 SE 136TH STREET
City,State,Zip: NORTH BEND, WA 98045
Site Number: 34073
Owner Name: City of North Bend
Well Status: Proposed
EPA Well Type: 5H1 - Stormwater
Latitude: 47.477671
Longitude: 121.75849
Well Name: RAB Basin 1
Registration Type: Municipal Stormwater
Construction Date: 09/01/2019
Construction Type: Infiltration trench with perforated pipe
Depth: 6

BK274 **RIVER RUN**
Target **43600 SE 136TH STREET**
Property **NORTH BEND, WA 98045**

WA UIC **S121928363**
N/A

Site 8 of 8 in cluster BK

Actual:
497 ft.

UIC:

Focus Map:
18

Name: RIVER RUN
Address: 43600 SE 136TH STREET
City,State,Zip: NORTH BEND, WA 98045
Site Number: 33837
Owner Name: North Bend Associates, LLC
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.47803
Longitude: 121.75616
Well Name: Basin 3
Registration Type: Non-Municipal Stormwater
Construction Date: 05/01/2018
Construction Type: Infiltration trench with perforated pipe
Depth: 6

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BL275 **PUGET SOUND POWER**
Target **44429 SE TANNER RD**
Property **NORTH BEND, WA**

WA RGA LUST **S115441305**
N/A

Site 1 of 6 in cluster BL

Actual: **507 ft.** **RGA LUST:** 1996 PUGET SOUND POWER 44429 SE TANNER RD

Focus Map:
18

BL276 **PUGET SOUND POWER & LIGHT CO NORTH BEND**
Target **44429 SE TANNER RD**
Property **NORTH BEND, WA 98045**

FINDS **1007067169**
N/A

Site 2 of 6 in cluster BL

Actual: **507 ft.** **FINDS:**
Registry ID: 110015437598
Focus Map: **18** **Facility URL:** http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015437598

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

BL277 **PUGET POWER TANNER MILL**
Target **44429 SE TANNER RD**
Property **NORTH BEND, WA**

WA RGA LUST **S115441273**
N/A

Site 3 of 6 in cluster BL

Actual: **507 ft.** **RGA LUST:** 2011 PUGET POWER TANNER MILL 44429 SE TANNER RD

Focus Map:
18

BL278 **PUGET SOUND POWER & LIGHT CO**
Target **44429 SE TANNER RD**
Property **NORTH BEND, WA**

WA RGA LUST **S115441304**
N/A

Site 4 of 6 in cluster BL

Actual: **507 ft.** **RGA LUST:** 2010 PUGET SOUND POWER & LIGHT CO 44429 SE TANNER RD
Focus Map: 2009 PUGET SOUND POWER & LIGHT CO 44429 SE TANNER RD
18 2008 PUGET SOUND POWER & LIGHT CO 44429 SE TANNER RD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PUGET SOUND POWER & LIGHT CO (Continued)

S115441304

2007	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD
2006	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD
2005	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD
2004	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD
2003	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD
2002	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD
2001	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD
2000	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD
1999	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD
1998	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD
1997	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD
1995	PUGET SOUND POWER & LIGHT CO	44429 SE TANNER RD

BL279 **PUGET SOUND POWER & LIGHT CO**
Target **44429 SE TANNER RD**
Property **NORTH BEND, WA 98045**

WA LUST **U000923013**
WA UST **N/A**
WA ICR
WA ALLSITES
WA CSCSL NFA

Site 5 of 6 in cluster BL

Actual:
507 ft.

LUST:

Focus Map:
18

Name:	PUGET POWER TANNER MILL
Address:	44429 SE TANNER RD
City,State,Zip:	NORTH BEND, WA 98045
Facility ID:	65553121
Lust Status Type:	LUST - NFA
Cleanup Site ID:	10054
Cleanup Unit Type:	Not reported
Process Type:	Not reported
Cleanup Unit Name:	PUGET SOUND POWER & LIGHT CO,PUGET SOUND POWER & LIGHT CO NORTH BEND
Response Section:	Northwest
Release Date:	05/05/1995
Lust Date:	10/03/2011
Region:	Northwest
Lust ID:	3859
UST ID:	9173
Contaminant Name:	Benzene
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Remediated-Below
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Lat/Long:	47.476044 / -121.74933

Name:	PUGET POWER TANNER MILL
Address:	44429 SE TANNER RD
City,State,Zip:	NORTH BEND, WA 98045
Facility ID:	65553121
Lust Status Type:	LUST - NFA
Cleanup Site ID:	10054
Cleanup Unit Type:	Not reported
Process Type:	Not reported
Cleanup Unit Name:	PUGET SOUND POWER & LIGHT CO,PUGET SOUND POWER & LIGHT CO NORTH BEND
Response Section:	Northwest
Release Date:	05/05/1995
Lust Date:	10/03/2011
Region:	Northwest
Lust ID:	3859
UST ID:	9173

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PUGET SOUND POWER & LIGHT CO (Continued)

U000923013

Contaminant Name: Petroleum-Other
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.476044 / -121.74933

Name: PUGET POWER TANNER MILL
Address: 44429 SE TANNER RD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 65553121
Lust Status Type: LUST - NFA
Cleanup Site ID: 10054
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: PUGET SOUND POWER & LIGHT CO,PUGET SOUND POWER & LIGHT CO NORTH BEND
Response Section: Northwest
Release Date: 05/05/1995
Lust Date: 10/03/2011
Region: Northwest
Lust ID: 3859
UST ID: 9173
Contaminant Name: Metals - Other
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.476044 / -121.74933

Name: PUGET POWER TANNER MILL
Address: 44429 SE TANNER RD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 65553121
Lust Status Type: LUST - NFA
Cleanup Site ID: 10054
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: PUGET SOUND POWER & LIGHT CO,PUGET SOUND POWER & LIGHT CO NORTH BEND
Response Section: Northwest
Release Date: 05/05/1995
Lust Date: 10/03/2011
Region: Northwest
Lust ID: 3859
UST ID: 9173
Contaminant Name: Petroleum-Diesel
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.476044 / -121.74933

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PUGET SOUND POWER & LIGHT CO (Continued)

U000923013

Name: PUGET POWER TANNER MILL
Address: 44429 SE TANNER RD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 65553121
Lust Status Type: LUST - NFA
Cleanup Site ID: 10054
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: PUGET SOUND POWER & LIGHT CO,PUGET SOUND POWER & LIGHT CO NORTH BEND
Response Section: Northwest
Release Date: 05/05/1995
Lust Date: 10/03/2011
Region: Northwest
Lust ID: 3859
UST ID: 9173
Contaminant Name: Petroleum-Gasoline
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.476044 / -121.74933

UST:

Name: PUGET SOUND POWER & LIGHT CO
Address: 44429 SE TANNER RD
City: NORTH BEND
Zip: 98045
Facility ID: 65553121
Site Id: 9173
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.476044
Decimal Longitude: -121.749333

Tank Name: 1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 07/01/1978
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: Automatic Shutoff (fill pipe)
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Statistical Inventory Reconciliation
Tank SFC Type: Not reported
Pipe Material: Steel
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Safe Suction (No Leak Detection)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PUGET SOUND POWER & LIGHT CO (Continued)

U000923013

Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Gravity Delivery System (No Pump)
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: PUGET SOUND POWER & LIGHT CO
Address: 44429 SE TANNER RD
City: NORTH BEND
Zip: 98045

Tank Name: 2
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 07/01/1978
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: Automatic Shutoff (fill pipe)
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported
Tank Release Detection: Statistical Inventory Reconciliation
Tank SFC Type: Not reported
Pipe Material: Steel
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Safe Suction (No Leak Detection)
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Gravity Delivery System (No Pump)
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: PUGET SOUND POWER & LIGHT CO
Address: 44429 SE TANNER RD
City: NORTH BEND
Zip: 98045

Tank Name: 3
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PUGET SOUND POWER & LIGHT CO (Continued)

U000923013

Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ICR:

Date Ecology Received Report: 10/28/02
Contaminants Found at Site: Petroleum products
Media Contaminated: Soil
Waste Management: Tank
Region: North Western
Type of Report Ecology Received: Final cleanup report
Site Register Issue: 98-54
County Code: 17
Contact: Not reported
Report Title: Site Assessment/Characterization

ALLSITES:

Name: PUGET SOUND POWER & LIGHT CO NORTH BEND
Facility Id: 65553121

Interaction: 57208
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 9173
Date Interaction: 2000-03-20 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.476038326000001
Longitude: -121.74931823199999

Interaction: 57207
Interaction 1: I
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 9173
Date Interaction: 1995-05-05 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.476038326000001
Longitude: -121.74931823199999

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PUGET SOUND POWER & LIGHT CO (Continued)

U000923013

CSCSL NFA:

Name: PUGET POWER TANNER MILL
Address: 44429 SE TANNER RD
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 65553121
CS Id: 10054
NFA Date: 10/03/2011
Alternate Site Names: PUGET SOUND POWER & LIGHT CO,PUGET SOUND POWER & LIGHT CO NORTH BEND
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Benzene
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.476044
Longitude: -121.749333

Name: PUGET POWER TANNER MILL
Address: 44429 SE TANNER RD
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 65553121
CS Id: 10054
NFA Date: 10/03/2011
Alternate Site Names: PUGET SOUND POWER & LIGHT CO,PUGET SOUND POWER & LIGHT CO NORTH BEND
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Metals - Other
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.476044
Longitude: -121.749333

Name: PUGET POWER TANNER MILL
Address: 44429 SE TANNER RD
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 65553121
CS Id: 10054
NFA Date: 10/03/2011
Alternate Site Names: PUGET SOUND POWER & LIGHT CO,PUGET SOUND POWER & LIGHT CO NORTH BEND
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Diesel
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PUGET SOUND POWER & LIGHT CO (Continued)

U000923013

Bedrock: Not reported
Latitude: 47.476044
Longitude: -121.749333

Name: PUGET POWER TANNER MILL
Address: 44429 SE TANNER RD
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 65553121
CS Id: 10054
NFA Date: 10/03/2011
Alternate Site Names: PUGET SOUND POWER & LIGHT CO,PUGET SOUND POWER & LIGHT CO NORTH BEND
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Gasoline
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.476044
Longitude: -121.749333

Name: PUGET POWER TANNER MILL
Address: 44429 SE TANNER RD
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 65553121
CS Id: 10054
NFA Date: 10/03/2011
Alternate Site Names: PUGET SOUND POWER & LIGHT CO,PUGET SOUND POWER & LIGHT CO NORTH BEND
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Other
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.476044
Longitude: -121.749333

BL280 **PUGET POWER TANNER MILL**
Target **44429 SE TANNER RD**
Property **NORTH BEND, WA**

WA RGA HWS **S115345317**
N/A

Site 6 of 6 in cluster BL

Actual: RGA HWS: 2011 PUGET POWER TANNER MILL 44429 SE TANNER RD
507 ft.
Focus Map:
18

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BM281 **MINERS RIDGE 24 LOT PLAT**
Target **13607 461ST AVE SE**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S116506061**
N/A

Site 1 of 2 in cluster BM

Actual: ALLSITES:
653 ft. Name: MINERS RIDGE 24 LOT PLAT
Focus Map: Facility Id: 8083
19

Interaction: 108581
Interaction 1: A
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Miners Ridge 24 Lot Plat
Program ID: WAR301884
Date Interaction: 2014-04-10 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.477070885000003
Longitude: -121.72445451999999

BM282 **MINERS RIDGE 24 LOT PLAT**
Target **13607 461ST AVE SE**
Property **NORTH BEND, WA 98045**

FINDS **1016868933**
ECHO **N/A**

Site 2 of 2 in cluster BM

Actual: FINDS:
653 ft. Registry ID: 110059660228
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110059660228
19

Environmental Interest/Information System:

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US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1016868933
Registry ID: 110059660228
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110059660228>

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BN283

**Target
Property**

**43030 SE 137TH PL THROUGHOUT
NORTH BEND, WA 98045**

WA ASBESTOS

**S119169732
N/A**

Site 1 of 2 in cluster BN

**Actual:
484 ft.**

**Focus Map:
18**

ASBESTOS:

Name:	Not reported
Address:	43030 SE 137TH PL THROUGHOUT
City,State,Zip:	NORTH BEND, WA 98045
Facility Type:	House
Parent ID:	0
Form ID:	118181##1427Affor549883
Notice Date:	06/22/2016
Start Date:	07/13/2016
Completion Date:	07/14/2016
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:00 a.m.
Site Hours End:	3:00 PM
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	1
Thursday:	1
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	425-512-8750
Job Site CAS:	Anthony Chase
Project Form Email:	js@affenv.net
Property Owner Name:	Not reported
Property Owner Agent:	Matt Perkins
Property Owner Company:	Affordable Environmental, Inc (ABCN00001427)
Property Owner Address:	14725 SE 36th St Suite 100
Property Owner City:	Bellevue
Property Owner State:	WA
Property Owner Zip4:	98006
Property Owner Phone:	425-452-0345
Job Site Room:	Throughout
Facility Age:	1970's
Facility Size:	1200
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	770
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S119169732

VAT:	Not reported
Roofing:	1
Sq Ft Other:	1
Sq Ft Other Text:	window caulking
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	1
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	1
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	1
PAPR:	Not reported
Type C Continuous:	1
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2016-06-22 13:12:44
Submitter IP Address:	73.193.81.219
Region:	2
UBI:	602577245
Notice type:	Initial
Project Type:	Other Square Footage, Roofing, Sheet Vinyl
Supervisor:	Anthony Chase ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

BN284 CEDAR LANDING PHASES 1 2 & 3
Target
Property NORTH BEND, WA 98045

WA ALLSITES S118821052
N/A

Site 2 of 2 in cluster BN

Actual: 484 ft.
Focus Map: 18

ALLSITES:	
Name:	CEDAR LANDING PHASES 1 2 & 3
Facility Id:	20099
Interaction:	118293

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CEDAR LANDING PHASES 1 2 & 3 (Continued)

S118821052

Interaction 1: A
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Cedar Landing Phases 1, 2 & 3
Program ID: WAR304150
Date Interaction: 2016-05-06 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.476230100000002
Longitude: -121.765360648

BO285 **TANNER FALLS RECLAMATION AND PARK**
Target **SE 140TH ST WESTERLY OF TANNERWOOD WY SE**
Property **NORTH BEND, WA 98045**

FINDS **1016782522**
ECHO **N/A**

Site 1 of 2 in cluster BO

Actual: **519 ft.** **FINDS:**
Focus Map: **19** **Registry ID:** 110058230347
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110058230347

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1016782522
Registry ID: 110058230347
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110058230347>

286
Target **13803 424TH AVE SE CHIMNEY, GARAGE DOOR, KITCHEN/LIVING ROOM**
Property **NORTH BEND, WA**

WA ASBESTOS **S125590767**
N/A

ASBESTOS:

Actual: **477 ft.** **Name:** Not reported
Focus Map: **17** **Address:** 13803 424TH AVE SE CHIMNEY, GARAGE DOOR, KITCHEN/LIVING ROOM
City,State,Zip: NORTH BEND, WA
Facility Type: Not reported
Parent ID: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590767

Form ID:	69196##1210Therm614385
Notice Date:	03/11/2013
Start Date:	03/21/2013
Completion Date:	03/21/2013
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590767

Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Vinyl Asbestos Tile
Supervisor:	Mike Guiley ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	13803 424TH AVE SE CHIMNEY, GARAGE DOOR, KITCHEN/LIVING ROOM
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	69536##1210Therm655353
Notice Date:	03/20/2013
Start Date:	03/23/2013
Completion Date:	03/23/2013
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590767

Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590767

Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Vinyl Asbestos Tile
Supervisor:	Vlado Lazarov ()
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	13803 424TH AVE SE CHIMNEY, GARAGE DOOR, KITCHEN/LIVING ROOM
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	69657##1210Therm673052
Notice Date:	03/25/2013
Start Date:	03/23/2013
Completion Date:	03/23/2013
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Thermatech Northwest Inc (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590767

Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125590767

UBI: 601725020
Notice type: Initial
Project Type: Other linear footage, Other Square Footage, Vinyl Asbestos Tile
Supervisor: Vlado Lazarov ()
Supervisor Phone: Not reported
Certificate Status: ACTIVE

BO287
Target
Property

TANNERWOOD

SE 140

NORTH BEND, WA 98045

WA ALLSITES

S110276068

N/A

Site 2 of 2 in cluster BO

Actual:
520 ft.

ALLSITES:

Focus Map:
19

Name:

TANNERWOOD

Facility Id:

7507

Interaction:

91603

Interaction 1:

I

Interaction 2:

CONSTSWGP

Ecology Program:

WATQUAL

Program Data:

PARIS

Facility Alt.:

Tannerwood

Program ID:

WAR011878

Date Interaction:

2010-03-10 00:00:00

Date Interaction 3:

Construction SW GP

Latitude:

47.475827658

Longitude:

-121.743596344

BP288
Target
Property

DAVID PIT

NORTH BEND, WA 98045

MINES MRDS

1025616761

N/A

Site 1 of 2 in cluster BP

Actual:
553 ft.

MINES MRDS:

Focus Map:
19

Name:

DAVID PIT

Address:

Not reported

Deposit identification Number:

10132078

City,State,Zip:

NORTH BEND, WASHINGTON 98045

URL:

https://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10132078

MRDS Identification Number:

Not reported

MAS/MILS Identification Number:

0530330994

Region:

NA

Country:

United States

Primary Commodities:

Sand and Gravel, Construction

Secondary Commodities:

Not reported

Tertiary Commodities:

Not reported

Operation Type:

Surface

Deposit Type:

Not reported

Production Size:

Not reported

Development Status:

Past Producer

Ore Minerals or Materials:

Not reported

Gangue Minerals or Materials:

Not reported

Other Minerals or Materials:

Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DAVID PIT (Continued)

1025616761

Ore Body Form:	Not reported
Workings Type:	Not reported
Mineral Deposit Model:	Not reported
Alteration Processes:	Not reported
Concentration Processes:	Not reported
Previous Names:	Dept of Highways
Ore Controls:	Not reported
Reporter:	Ridenour, James
Host Rock Unit Name:	Not reported
Host Rock Type:	Not reported
Associated Rock Unit Name:	Not reported
Associated Rock Type Code:	Not reported
Structural Characteristics:	Not reported
Tectonic Setting:	Not reported
References:	Not reported
First Production Year:	Not reported
Began Before/After FPY:	Not reported
Last Production Year:	Not reported
Ended Before/After LPY:	Not reported
Year Discovered:	Not reported
Found Before/After YD:	Not reported
Production History:	Not reported
Discovery Information:	Not reported
Latitude:	47.47561
Longitude:	-121.73871

289

Target 13739 436TH AVE SE
Property NORTH BEND, WA

WA SPILLS S113888049
N/A

SPILLS:

Actual:
502 ft.

Focus Map:
18

Name:	Not reported
Address:	13739 436TH AVE SE
City,State,Zip:	NORTH BEND, WA
Facility ID:	642978
Medium:	SOIL
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	10
Material Units:	GALLON
Date Received:	08/06/2013
Contact Name:	UNKNOWN
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

290
Target
Property

ULID NO 6 SEWER PIPE INSTALL
468TH AVE
NORTH BEND, WA

WA ALLSITES **S110123845**
N/A

Actual:
520 ft.

Focus Map:
19

ALLSITES:

Name:

ULID NO 6 SEWER PIPE INSTALL

Facility Id:

12559

Interaction:

91689

Interaction 1:

A

Interaction 2:

ENFORFNL

Ecology Program:

WATQUAL

Program Data:

DMS

Facility Alt.:

Not reported

Program ID:

Not reported

Date Interaction:

2010-03-16 00:00:00

Date Interaction 3:

Enforcement Final

Latitude:

47.475545046000001

Longitude:

-121.74553319499999

Interaction:

89675

Interaction 1:

I

Interaction 2:

CONSTSWGP

Ecology Program:

WATQUAL

Program Data:

PARIS

Facility Alt.:

ULID NO. 6 -SEWER PIPE INSTALL

Program ID:

WAR011863

Date Interaction:

2010-01-06 00:00:00

Date Interaction 3:

Construction SW GP

Latitude:

47.475545046000001

Longitude:

-121.74553319499999

BP291
Target
Property

MAS RESOURCES INC JOHNSON PIT
TANNER RD
NORTH BEND, WA 98045

WA ALLSITES **1007079851**
FINDS **N/A**

Site 2 of 2 in cluster BP

Actual:
549 ft.

Focus Map:
19

ALLSITES:

Name:

MAS RESOURCES INC JOHNSON PIT

Facility Id:

759689

Interaction:

80766

Interaction 1:

I

Interaction 2:

SANDGP

Ecology Program:

WATQUAL

Program Data:

PARIS

Facility Alt.:

Not reported

Program ID:

WAG503157

Date Interaction:

1999-08-06 00:00:00

Date Interaction 3:

Sand and Gravel GP

Latitude:

47.475484287999997

Longitude:

-121.73936259200001

FINDS:

Registry ID:

110015565681

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MAS RESOURCES INC JOHNSON PIT (Continued)

1007079851

Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015565681

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

292
Target
Property

TANNER FALLS RECLAMATION AND PARK
SE 140TH ST WEST OF TANNERWOOD WAY SE
NORTH BEND, WA 98045

WA ALLSITES
WA NPDES

S116505688
N/A

ALLSITES:

Actual:
524 ft.

Focus Map:
19

Name:	TANNER FALLS RECLAMATION AND PARK
Facility Id:	13623
Interaction:	107647
Interaction 1:	A
Interaction 2:	CONSTSWGP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	Tanner Falls Reclamation and Park
Program ID:	WAR301698
Date Interaction:	2014-02-21 00:00:00
Date Interaction 3:	Construction SW GP
Latitude:	47.475369246
Longitude:	-121.743745569

NPDES:

Name:	TANNER FALLS RECLAMATION AND PARK
Address:	SE 140TH ST WEST OF TANNERWOOD WAY SE
City,State,Zip:	NORTH BEND, WA 98045
Facility Status:	Active
Facility Type:	Construction SW GP
Admin Region:	Headquarters
Date Issued:	11/18/2015
Latitude:	47.47537358
Longitude:	-121.743780
Permit ID:	WAR301698
Permit Version:	1
Permit Status:	Active
Permit SubStatus:	Coverage Issued
Ecology Contact:	Tracie Walters
WRIA:	Snohomish
Permit Expiration Date:	12/31/2020
Effective Date:	01/01/2016
Days to Expiration:	-443

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BQ293 **WA DOT NORTH BEND**
Target **45000 SE 140TH ST**
Property **NORTH BEND, WA 98045**

WA VCP **S124433519**
 N/A

Site 1 of 3 in cluster BQ

Actual:
532 ft.

VCP:

Focus Map:
19

Name: WA DOT NORTH BEND
Address: 45000 SE 140TH ST
City,State,Zip: NORTH BEND, WA 98045
edr_fstat: WA
edr_fzip: 98045
edr_fcnty: KING
edr_zip: Not reported
Facility ID: 26445399
VCP Status: Not reported
VCP: NFA
Ecology Status: Not reported
NFA Type: Not reported
Date NFA: 2005-03-08
Rank: Not reported
Cleanup Siteid: 3496
Contaminant Name: Metals Priority Pollutants
Soil: Remediated

Name: WA DOT NORTH BEND
Address: 45000 SE 140TH ST
City,State,Zip: NORTH BEND, WA 98045
edr_fstat: WA
edr_fzip: 98045
edr_fcnty: KING
edr_zip: Not reported
Facility ID: 26445399
VCP Status: Not reported
VCP: NFA
Ecology Status: Not reported
NFA Type: Not reported
Date NFA: 2005-03-08
Rank: Not reported
Cleanup Siteid: 3496
Contaminant Name: Petroleum Products-Unspecified
Soil: Remediated

BQ294 **WA DOT NORTH BEND**
Target **45000 SE 140TH ST**
Property **NORTH BEND, WA 98045**

WA ALLSITES **1007073556**
WA CSCSL NFA **N/A**
 FINDS

Site 2 of 3 in cluster BQ

Actual:
532 ft.

ALLSITES:

Focus Map:
19

Name: WA DOT NORTH BEND
Facility Id: 26445399

Interaction: 35042
Interaction 1: I
Interaction 2: SCS
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: WA DOT NORTH BEND
Program ID: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WA DOT NORTH BEND (Continued)

1007073556

Date Interaction: 1998-09-24 00:00:00
Date Interaction 3: State Cleanup Site
Latitude: 47.475401325
Longitude: -121.744154233

Interaction: 35043
Interaction 1: I
Interaction 2: VOLCLNST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: WA DOT NORTH BEND
Program ID: NW1315
Date Interaction: 2004-08-31 00:00:00
Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.475401325
Longitude: -121.744154233

CSCSL NFA:

Name: WA DOT NORTH BEND
Address: 45000 SE 140TH ST
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 26445399
CS Id: 3496
NFA Date: 03/08/2005
Alternate Site Names: CASCADE DENSIFIED FUEL,STATE OF WASHINGTON DOT NORTH BEND,TANNER PIT SITE,WSDOT NORTHBEND
NFA Reason: NFA-Voluntary Cleanup Program Review
Site Status: NFA
Region: Northwest
Contaminant Name: Metals Priority Pollutants
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.475407
Longitude: -121.744169

Name: WA DOT NORTH BEND
Address: 45000 SE 140TH ST
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 26445399
CS Id: 3496
NFA Date: 03/08/2005
Alternate Site Names: CASCADE DENSIFIED FUEL,STATE OF WASHINGTON DOT NORTH BEND,TANNER PIT SITE,WSDOT NORTHBEND
NFA Reason: NFA-Voluntary Cleanup Program Review
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum Products-Unspecified
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated
Sediment: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WA DOT NORTH BEND (Continued)

1007073556

Air: Not reported
Bedrock: Not reported
Latitude: 47.475407
Longitude: -121.744169

FINDS:

Registry ID: 110015501900
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015501900

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

BQ295 **WA DOT NORTHBEND**
Target **45000 SE 140TH ST**
Property **NORTH BEND, WA**

WA RGA HWS **S115347757**
N/A

Site 3 of 3 in cluster BQ

Actual: RGA HWS: 2004 WA DOT NORTHBEND 45000 SE 140TH ST
532 ft.
Focus Map:
19

296 **AT&T WIRELESS TANNER**
Target **16550 487TH AVE SE**
Property **NORTH BEND, WA 98045**

WA ALLSITES **1008919892**
FINDS **N/A**

ALLSITES:

Actual: Name: AT&T WIRELESS TANNER
522 ft. Facility Id: 8479624
Focus Map: Interaction: 127880
18 Interaction 1: I
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: AT&T WIRELESS TANNER
Program ID: CRK000056010
Date Interaction: 2002-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.475131791000003
Longitude: -121.747473822

Interaction: 127881
Interaction 1: A

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AT&T WIRELESS TANNER (Continued)

1008919892

Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: ATT NORTH BEND USID11456
Program ID: CRK000056010
Date Interaction: 2015-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.475131791000003
Longitude: -121.747473822

FINDS:

Registry ID: 110022930300
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110022930300

Environmental Interest/Information System:

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[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

BR297 **TANNERWOOD A**
Target **SE 140TH ST AND 453ND PL SE**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S112074884**
N/A

Site 1 of 2 in cluster BR

Actual: **ALLSITES:**
587 ft. **Name:** **TANNERWOOD A**
Focus Map: **Facility Id:** **8564**
19

Interaction: 101852
Interaction 1: I
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Tannerwood A
Program ID: WAR125891
Date Interaction: 2012-06-11 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.475079295999997
Longitude: -121.735448791

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BR298 **TANNERWOOD**
Target **SE 140**
Property **NORTH BEND, WA 98045**

FINDS **1012224640**
ECHO **N/A**

Site 2 of 2 in cluster BR

Actual:
587 ft.

FINDS:

Registry ID: 110040626793
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110040626793

Focus Map:
19

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1012224640
Registry ID: 110040626793
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110040626793>

299 **NW CASCADES INC**
Target **13805 457TH AVE SE**
Property **NORTH BEND, WA**

WA SPILLS **S110336416**
N/A

SPILLS:

Actual:
631 ft.

Name: NW CASCADES INC
Address: 13805 457TH AVE SE
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 619178
Medium: IMPERMEABLE CONTAINMENT
Material Desc: PETROLEUM - UNKNOWN
Material Qty: Not reported
Material Units: GALLON
Date Received: 04/11/2010
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported

Focus Map:
19

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NW CASCADES INC (Continued)

S110336416

Cause Type: Not reported
Resp Party Name: Not reported

300 CEDAR LANDING PHASES 1 2 & 3
Target UNSPECIFIED
Property NORTH BEND, WA 98045

FINDS 1023666486
ECHO N/A

FINDS:

Actual: Registry ID: 110070080669
479 ft. Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110070080669

Focus Map: Environmental Interest/Information System:
18

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1023666486
Registry ID: 110070080669
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110070080669>

BS301 FURY SITE WORKS INC
Target
Property KING (County), WA

US MINES 1016953340
N/A

Site 1 of 2 in cluster BS

Actual: US MINES:
554 ft. Sic Code(s): 144200
Focus Map: Sic Code(s): 000000
19 Sic Code(s): 000000
Sic Code(s): 000000
Sic Code(s): 000000
Sic Code(s): 000000
Sic Code(s): 000000
Mine ID: 4503732
Entity Name: TANNER FALLS
Company: FURY SITE WORKS INC
Status: 4
Status Date: 20150904
Operation Class: 2
Number of Shops: 0
Number of Plants: 0
Latitude Degree: 47
Longitude Degree: 121
Latitude Minute: 28
Latitude Seconds: 30
Longitude Minutes: 44
Longitude Seconds: 21

Map ID	MAP FINDINGS			
Direction				
Distance				
Elevation	Site	Database(s)	EDR ID Number	
			EPA ID Number	

FURY SITE WORKS INC (Continued)**1016953340**

Number of Pits: 000

BS302	TANNER FALLS	ABANDONED MINES	1018248857
Target	45100 NE 140TH SE		N/A
Property	NORTH BEND, WA 98045		

Site 2 of 2 in cluster BS

Actual: 554 ft.

Focus Map: 19

ABANDONED MINES:

Mine ID: 4503732

Mine Name: TANNER FALLS

Mine Address: 45100 NE 140TH SE

City,State,Zip: NORTH BEND, WA 980452118

Primary SIC Code: Not reported

Mine Type: Surface

Mine Status Description: Abandoned

Mine Status Date: 9/4/2015

Coal (C) or Metal (M) Mine: M

Controller ID: 0114441

Controller Name: John R Day

Operator ID: 0134493

Operator name: Fury Site Works Inc

Address of Record Street: 43520 SE North Bend Way

Address of Record PO Box: Not reported

Address of Record City: North Bend

Address of Record State: WA

Address of Record Zip Code: 980452118

Assessment Address Street: Not reported

Assessment Address PO Box: 2118

Assessment Address City: NORTH BEND

Assessment Address State: WA

Assessment Address Zip Code: 980452118

Mine Health and Safety Address Street: Not reported

Mine Health and Safety Address PO Box: 2118

Mine Health and Safety Address City: North Bend

Mine Health and Safety Address State: WA

Mine Health and Safety Address Zip Code: 980452118

Latitude: 47.475

Longitude: -121.739167

303	KING COUNTY SHORT PLAT S0195076/S048	WA UIC	S114423597
Target	44139 SE 136TH ST		N/A
Property	NORTH BEND, WA		

UIC:

Actual: 507 ft.

Focus Map: 18

Name: KING COUNTY SHORT PLAT S0195076/S048

Address: 44139 SE 136TH ST

City,State,Zip: NORTH BEND, WA

Site Number: 19783

Owner Name: King County WLRD - DSS

Well Status: Active

EPA Well Type: 5H1 - Stormwater

Latitude: 47.475278

Longitude: 121.750833

Well Name: 14153

Registration Type: Municipal Stormwater

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING COUNTY SHORT PLAT S0195076/S048 (Continued)

S114423597

Construction Date: 11/14/1995
Construction Type: Other
Depth: 2

BT304 M.C. ANDERSON TRUCKING
Target 44700 NORTH BEND WAY
Property NORTH BEND, WA 98045

WA ICR S103508144
N/A

Site 1 of 6 in cluster BT

Actual: ICR:
530 ft. Date Ecology Received Report: 02/21/91
Focus Map: Contaminants Found at Site: Petroleum products
19 Media Contaminated: Soil
Waste Management: Tank
Region: North Western
Type of Report Ecology Received: Interim cleanup report
Site Register Issue: 91-23
County Code: 17
Contact: Not reported
Report Title: Not reported

Date Ecology Received Report: 09/30/91
Contaminants Found at Site: Petroleum products
Media Contaminated: Soil
Waste Management: Tank
Region: North Western
Type of Report Ecology Received: Not reported
Site Register Issue: 92-08
County Code: 17
Contact: Not reported
Report Title: Not reported

BT305 CHAMPION INTERNATIONAL CORP
Target 200 FT S OF MIDDLE FK RD ON
Property NORTH BEND, WA 98045

WA ALLSITES S109557180
N/A

Site 2 of 6 in cluster BT

Actual: ALLSITES:
527 ft. Name: CHAMPION INTERNATIONAL CORP
Focus Map: Facility Id: 79177226
19

Interaction: 64984
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WA0000928291
Date Interaction: 1994-11-10 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.474603180999999
Longitude: -121.74308073

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHAMPION INTERNATIONAL CORP (Continued)

S109557180

Interaction: 126185
Interaction 1: A
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Champion International Corp
Program ID: WA0000928291
Date Interaction: 1994-12-31 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.474603180999999
Longitude: -121.74308073

BT306 MC ANDERSON TRUCKING
Target 44711 SE NORTHBEND WAY
Property NORTH BEND, WA 98045

FINDS 1007075509
N/A

Site 3 of 6 in cluster BT

Actual: FINDS:
527 ft. Registry ID: 110015521577
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015521577
19

Environmental Interest/Information System:

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[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

BT307 MC ANDERSON TRUCKING
Target 44711 SE NORTHBEND WAY/PO BOX 354
Property NORTH BEND, WA

WA RGA LUST S115438783
N/A

Site 4 of 6 in cluster BT

Actual: RGA LUST:
527 ft.
Focus Map:
19

2010	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
2009	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
2008	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
2007	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
2006	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
2005	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
2004	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
2003	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
2002	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
2001	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
2000	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
1999	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
1998	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
1997	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354
1995	MC ANDERSON TRUCKING	44711 SE NORTHBEND WAY/PO BOX 354

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BT308 **MC ANDERSON**
Target **44711 SE NORTHBEND**
Property **NORTH BEND, WA**

WA RGA LUST **S115438784**
N/A

Site 5 of 6 in cluster BT

Actual: **527 ft.** **RGA LUST:** 1996 MC ANDERSON 44711 SE NORTHBEND

Focus Map:
19

BT309 **CHAMPION INTERNATIONAL CORP**
Target **200 FT S OF MIDDLE FK RD ON**
Property **NORTH BEND, WA 98045**

RCRA NonGen / NLR **1000982915**
FINDS **WA0000928291**
ECHO

Site 6 of 6 in cluster BT

Actual: **526 ft.** **RCRA NonGen / NLR:**
Focus Map: **19** Date form received by agency: 1995-01-01 00:00:00.0
Facility name: CHAMPION INTERNATIONAL CORP
Facility address: 200 FT S OF MIDDLE FK RD ON
RR R O W
NORTH BEND, WA 98045
EPA ID: WA0000928291
Mailing address: 1011 E MAIN AVE STE 303
PUYALLUP, WA 98372
Contact: GARY DEJARLAIS
Contact address: 1011 E MAIN AVE STE 303
PUYALLUP, WA 98372
Contact country: US
Contact telephone: 253-841-7991
Contact email: Not reported
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: CHAMPION INTERNATIONAL CORP
Owner/operator address: RAILROAD RD RR R O W
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 1996-05-01 00:00:00.
Owner/Op end date: Not reported
Owner/operator name: CHAMPION INTERNATIONAL CORP
Owner/operator address: 200 FT S OF MIDDLE FK RD ON RR R O W
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHAMPION INTERNATIONAL CORP (Continued)

1000982915

Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: DEJARLAIS, GARY
Owner/operator address: 1011 E MAIN AVE STE 303 RR R O W
PUYALLUP, WA 98372

Owner/operator country: US
Owner/operator telephone: 253-841-7991
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 1995-01-01 00:00:00.0
Site name: CHAMPION INTERNATIONAL CORP
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110008214495
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110008214495

Environmental Interest/Information System:

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RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHAMPION INTERNATIONAL CORP (Continued)

1000982915

events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000982915
Registry ID: 110008214495
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110008214495>

310

Target 457TH AVE S
Property NORTH BEND, WA 98045

WA SPILLS **S123671730**
N/A

SPILLS:

Actual:
631 ft.

Focus Map:
19

Name: Not reported
Address: 457TH AVE S
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 105017
Medium: Impermeable Containment
Material Desc: HYDRAULIC OIL
Material Qty: 3
Material Units: Gals
Date Received: Not reported
Contact Name: Not reported
Incident Date: 03/22/2019
Incident Category Type: Oil Spill
Incident Category: Oil Spill
Latitude: 47.47457
Longitude: -121.73069
Source Type: Vehicle
Source: Commercial Truck
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Republic Services

311

Target 45312 SE 140TH STREET
Property NORTH BEND, WA

WA ASBESTOS **S125601702**
N/A

ASBESTOS:

Actual:
566 ft.

Focus Map:
19

Name: Not reported
Address: 45312 SE 140TH STREET
City,State,Zip: NORTH BEND, WA
Facility Type: Not reported
Parent ID: Not reported
Form ID: 39418##1172Partn862772
Notice Date: 06/25/2010
Start Date: 07/06/2010
Completion Date: 07/08/2010
Initial: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125601702

Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	Partners Construction Inc (ABCN00001172)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125601702

Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601546194
Notice type:	Initial
Project Type:	Popcorn Ceiling
Supervisor:	Phil Sheridan ()
Supervisor Phone:	Not reported
Certificate Status:	EXPIRED

BU312 IRON HORSE PARK
Target I 90 EXIT 32
Property NORTH BEND, WA 98045

WA UST U003604813
N/A

Site 1 of 2 in cluster BU

Actual:	UST:	
504 ft.	Name:	IRON HORSE PARK
Focus Map:	Address:	I 90 EXIT 32
18	City:	NORTH BEND
	Zip:	98045
	Facility ID:	17443974
	Site Id:	496557
	UBI:	Not reported
	Phone Number:	Not reported
	Decimal Latitude:	47.473935
	Decimal Longitude:	-121.75972
	Tank Name:	1
	Tag Number:	Not reported
	Tank Status:	Removed
	Tank Status Date:	12/10/1999
	Tank Install Date:	01/01/1900
	Tank Closure Date:	Not reported
	Capacity Range:	Not reported
	Tank Permit Expiration Date:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

IRON HORSE PARK (Continued)

U003604813

Tank Upgrade Date: Not reported
 Tank Spill Prevention: Not reported
 Tank Overfill Prevention: Not reported
 Tank Material: Not reported
 Tank Construction: Not reported
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: Not reported
 Tank Manifold: Not reported
 Tank Release Detection: Not reported
 Tank SFC Type: Not reported
 Pipe Material: Not reported
 Pipe Construction: Not reported
 Pipe Primary Release Detection: Not reported
 Pipe Second Release Detection: Not reported
 Pipe Corrosion Protection: Not reported
 Pipe Pumping System: Not reported
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Not reported

BU313 **IRON HORSE PARK**
Target **I90 EXIT 32**
Property **NORTH BEND, WA 98045**

WA ALLSITES **1007075030**
FINDS **N/A**

Site 2 of 2 in cluster BU

Actual: **ALLSITES:**
503 ft. Name: IRON HORSE PARK
Focus Map: Facility Id: 17443974
18

Interaction: 29946
 Interaction 1: I
 Interaction 2: UST
 Ecology Program: TOXICS
 Program Data: UST
 Facility Alt.: Not reported
 Program ID: 496557
 Date Interaction: 1999-05-06 00:00:00
 Date Interaction 3: Underground Storage Tank
 Latitude: 47.473929327
 Longitude: -121.75970522999999

FINDS:

Registry ID: 110015516743
 Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015516743

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

314

Target
Property

I-90 WESTBOUND MILEPOST 34 JUST EAST OF NORTH BEND
NORTH BEND, WA

WA SPILLS

S118641852
N/A

Actual:
565 ft.

Focus Map:
19

SPILLS:

Name: Not reported
Address: I-90 WESTBOUND MILEPOST 34 JUST EAST OF NORTH BEND
City,State,Zip: NORTH BEND, WA
Facility ID: 89066
Medium: Land
Material Desc: DIESEL/MARINE GAS OIL
Material Qty: 60
Material Units: Not reported
Date Received: Not reported
Contact Name: Not reported
Incident Date: 05/05/2016
Incident Category Type: Oil Spill
Incident Category: Oil Spill
Latitude: 47.4734
Longitude: -121.7418
Source Type: Vehicle
Source: Commercial Truck
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: JERRY SAUNDERS

315

Target
Property

MC ANDERSON TRUCKING
44711 SE NORTHBEND WAY/PO BOX 354
NORTH BEND, WA 98045

WA LUST

U000594632
N/A

WA UST
WA ALLSITES
WA CSCSL NFA

Actual:
563 ft.

Focus Map:
19

LUST:

Name: MC ANDERSON TRUCKING
Address: 44711 SE NORTHBEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 14722754
Lust Status Type: LUST - NFA
Cleanup Site ID: 8053
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: Not reported
Response Section: Northwest
Release Date: 12/10/1990
Lust Date: 10/03/2011
Region: Northwest
Lust ID: 856
UST ID: 10533
Contaminant Name: Petroleum-Diesel
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.473305 / -121.74073

Name: MC ANDERSON TRUCKING

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MC ANDERSON TRUCKING (Continued)

U000594632

Address: 44711 SE NORTHBEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 14722754
Lust Status Type: LUST - NFA
Cleanup Site ID: 8053
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: Not reported
Response Section: Northwest
Release Date: 12/10/1990
Lust Date: 10/03/2011
Region: Northwest
Lust ID: 856
UST ID: 10533
Contaminant Name: Petroleum-Other
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.473305 / -121.74073

UST:

Name: MC ANDERSON TRUCKING
Address: 44711 SE NORTHBEND WAY/PO BOX 354
City: NORTH BEND
Zip: 98045
Facility ID: 14722754
Site Id: 10533
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.473305
Decimal Longitude: -121.740739

Tank Name: 1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Above Ground Piping
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MC ANDERSON TRUCKING (Continued)

U000594632

Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: MC ANDERSON TRUCKING
Facility Id: 14722754

Interaction: 28329
Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 10533
Date Interaction: 2000-03-20 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.473299324999999
Longitude: -121.740724234

Interaction: 28328
Interaction 1: I
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 10533
Date Interaction: 1990-12-10 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.473299324999999
Longitude: -121.740724234

CSCSL NFA:

Name: MC ANDERSON TRUCKING
Address: 44711 SE NORTHBEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 14722754
CS Id: 8053
NFA Date: 10/03/2011
Alternate Site Names: Not reported
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Diesel
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.473305
Longitude: -121.740739

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MC ANDERSON TRUCKING (Continued)

U000594632

Name: MC ANDERSON TRUCKING
Address: 44711 SE NORTHBEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 14722754
CS Id: 8053
NFA Date: 10/03/2011
Alternate Site Names: Not reported
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Other
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.473305
Longitude: -121.740739

BV316 ESTATE OF DANIEL H CAHILL
Target 45120 SE NORTH BEND WAY
Property NORTH BEND, WA 98045

WA MANIFEST S121931271
N/A

Site 1 of 3 in cluster BV

Actual:
569 ft.

Focus Map:
19

WA MANIFEST:

Name: ESTATE OF DANIEL H CAHILL
Address: 45120 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility Address 2: Not reported
Facility ID: 11385314
EPA ID: WAR000008474
NAICS: 332812
State Waste Code Desc: WT02
Federal Waste Code Desc: F002
Form Comm:

Waste was generated in 2017 but did not manifest and ship off site until 2018.

Data Year: 2017
Permit by Rule: False
Mailing Address 2: Not reported
Treatment by Generator: False
Mixed Radioactive Waste: False
Importer of Hazardous Waste: False
Immediate Recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of Dangerous Fuel Waste: False
Generator Marketing to Burner: False
Other Marketers (i.e., blender, distributor, etc.): False
Utility Boiler Burner: False
Industry Boiler Burner: False
Industrial Furnace: False
Smelter Defferal: False
Universal Waste: Not reported
Off-Specification: Not reported
LN Address 2: Not reported
Tax Reg #: Not reported
Business Type: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ESTATE OF DANIEL H CAHILL (Continued)

S121931271

Mail Name: Not reported
Mailing Address: 1525 N Kentucky St
Mailing City,State,Zip: Arlington, VA 22205-2824
Legal Organization Name: Not reported
Legal Organization Type: Private
Legal Contact: Val Drilevich
Legal Address: 29712 226th Ave SE
Legal Address 2: Not reported
Legal City,State,Zip: Black Diamond, WA 98010
Legal Phone Number: 3602707605
Legal Effective Date: 01/01/2000
Land Organization Name: Not reported
Land Organization Type: Private
Land Contact: Val Drilevich
Land Address: 29712 226th Ave SE
Land City,State,Zip: Black Diamond, WA 98010
Land Phone Number: 3602707605
Operator Organization Name: Not reported
Operator Organization Type: Private
Operator: Val Drilevich
Operator Address: 29712 226th Ave SE
Operator Address 2: Not reported
Operator City,State,Zip: Black Diamond, WA 98010
Operator Phone Number: 3602707605
Operator Effective Date: 01/01/2000
Site Contact: Val Drilevich
Site Contact Address: 29712 226th Ave SE
Contact City,State,Zip: Black Diamond, WA 98010
Site Contact Phone Number: 3602707605
Site Contact Email: Not reported
Gen Status Code: LQG
Monthly Generation: False
Batch Generation: False
One Time Generation: True
Transport Own Waste: False
Tranports Other Waste: False
Recycler Onsite: False
Transfer Facility: False
Other Exemption: Not reported
UW Battery Gen: False
Used Oil Transporter: False
Used Oil Transfer Facility: False
Used Oil Processor: False
Used Oil Refiner: False
Used Oil Fuel Marketer Directs Shipments: False
Used Oil Fuel Marketer Meets Specs: False
Site Contact Address 2: Not reported

Name: ESTATE OF DANIEL H CAHILL
Address: 45120 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility Address 2: Not reported
Facility ID: 11385314
EPA ID: WAR000008474
NAICS: 332812
State Waste Code Desc: WT02
Federal Waste Code Desc: F002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ESTATE OF DANIEL H CAHILL (Continued)

S121931271

Form Comm:	Waste was generated in 2017 but did not manifest and ship off site until 2018.
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	NA
Business Type:	Not reported
Mail Name:	Not reported
Mailing Address:	1525 N Kentucky St
Mailing City,State,Zip:	Arlington, VA 22205
Legal Organization Name:	Drilevich, Val
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	29712 226th Ave SE
Legal Address 2:	Not reported
Legal City,State,Zip:	Black Diamond, WA 98010
Legal Phone Number:	(360)270-7605
Legal Effective Date:	01/01/2000
Land Organization Name:	Drilevich, Val
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	29712 226th Ave SE
Land City,State,Zip:	Black Diamond, WA 98010
Land Phone Number:	(360)270-7605
Operator Organization Name:	Drilevich, Val
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	29712 226th Ave SE
Operator Address 2:	Not reported
Operator City,State,Zip:	Black Diamond, WA 98010
Operator Phone Number:	(360)270-7605
Operator Effective Date:	01/01/2000
Site Contact:	Val Drilevich
Site Contact Address:	29712 226th Ave SE
Contact City,State,Zip:	Black Diamond, WA 98010
Site Contact Phone Number:	(360)270-7605
Site Contact Email:	Not reported
Gen Status Code:	LQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ESTATE OF DANIEL H CAHILL (Continued)

S121931271

Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

BV317 ENGINEERED COATING SYSTEMS
Target 45120 SE NORTH BEND WAY
Property NORTH BEND, WA

WA RGA HWS S115342129
N/A

Site 2 of 3 in cluster BV

Actual:	RGA HWS:			
569 ft.		2012	ENGINEERED COATING SYSTEMS	45120 SE NORTH BEND WAY
Focus Map:		2011	ENGINEERED COATING SYSTEMS	45120 SE NORTH BEND WAY
19		2010	ENGINEERED COATING SYSTEMS	45120 SE NORTH BEND WAY
		2009	ENGINEERED COATING SYSTEMS	45120 SE NORTH BEND WAY
		2008	ENGINEERED COATING SYSTEMS	45120 SE NORTH BEND WAY
		2007	ENGINEERED COATING SYSTEMS	45120 SE NORTH BEND WAY
		2006	ENGINEERED COATING SYSTEMS	45120 SE NORTH BEND WAY
		2005	ENGINEERED COATING SYSTEMS	45120 SE NORTH BEND WAY
		2004	ENGINEERED COATING SYSTEMS	45120 SE NORTH BEND WAY

BV318 ESTATE OF DANIEL H CAHILL
Target 45120 SE NORTH BEND WAY
Property NORTH BEND, WA 98045

WA HSL 1001092193
WA CSCSL WAR000008474
WA ALLSITES
RCRA NonGen / NLR
FINDS
ECHO

Site 3 of 3 in cluster BV

Actual:	HSL:	
569 ft.	Name:	ENGINEERED COATING SYSTEMS
Focus Map:	Address:	Not reported
19	City,State,Zip:	NORTH BEND, WA
	edr_fstat:	WA
	edr_fzip:	Not reported
	edr_fcnty:	KING
	edr_zip:	Not reported
	Facility Type:	Hazardous Sites List
	Facility Status:	Awaiting Cleanup
	FSID Number:	11385314
	Rank:	1
	Region:	NW
	EDR Link ID:	11385314
	Region Decode:	NORTHWEST REGIONAL OFFICE

CSCSL:	
Name:	ENGINEERED COATING SYSTEMS
Address:	45120 SE NORTH BEND WAY
City,State,Zip:	NORTH BEND, WA 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ESTATE OF DANIEL H CAHILL (Continued)

1001092193

Facility ID: 11385314
Region: Northwest
Lat/Long: 47.47198 / -121.73574
Clean Up Siteid: 3888
Site Status: Awaiting Cleanup
Contaminant Name: Corrosive Wastes
Alternate Site Names: CASCADE MANUFACTURING,ENGINEERING COATING SYSTEMS
Site Rank: 1 - Highest Assessed Risk
Has Institutional Control:Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Suspected
Surface Water: Not reported
Soil: Suspected
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: ENGINEERED COATING SYSTEMS
Address: 45120 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 11385314
Region: Northwest
Lat/Long: 47.47198 / -121.73574
Clean Up Siteid: 3888
Site Status: Awaiting Cleanup
Contaminant Name: Halogenated Organics
Alternate Site Names: CASCADE MANUFACTURING,ENGINEERING COATING SYSTEMS
Site Rank: 1 - Highest Assessed Risk
Has Institutional Control:Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Suspected
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: ENGINEERED COATING SYSTEMS
Address: 45120 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 11385314
Region: Northwest
Lat/Long: 47.47198 / -121.73574
Clean Up Siteid: 3888
Site Status: Awaiting Cleanup
Contaminant Name: Metals Priority Pollutants
Alternate Site Names: CASCADE MANUFACTURING,ENGINEERING COATING SYSTEMS
Site Rank: 1 - Highest Assessed Risk
Has Institutional Control:Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Suspected
Surface Water: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ESTATE OF DANIEL H CAHILL (Continued)

1001092193

Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: ENGINEERED COATING SYSTEMS
Address: 45120 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 11385314
Region: Northwest
Lat/Long: 47.47198 / -121.73574
Clean Up Siteid: 3888
Site Status: Awaiting Cleanup
Contaminant Name: Non-Halogenated Solvents
Alternate Site Names: CASCADE MANUFACTURING,ENGINEERING COATING SYSTEMS
Site Rank: 1 - Highest Assessed Risk
Has Institutional Control:Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Suspected
Surface Water: Not reported
Soil: Suspected
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

ALLSITES:

Name: ENGINEERED COATING SYSTEMS
Facility Id: 11385314

Interaction: 125093
Interaction 1: I
Interaction 2: HWOTHER
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Estate of Daniel H Cahill
Program ID: WAR000008474
Date Interaction: 2016-12-31 00:00:00
Date Interaction 3: Haz Waste Management Acti
Latitude: 47.471974324999998
Longitude: -121.735725235

Interaction: 26156
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAR000008474
Date Interaction: 1996-03-13 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.471974324999998
Longitude: -121.735725235

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ESTATE OF DANIEL H CAHILL (Continued)

1001092193

Interaction: 124250
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Estate of Daniel H Cahill
Program ID: WAR000008474
Date Interaction: 2016-08-29 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.471974324999998
Longitude: -121.735725235

Interaction: 26157
Interaction 1: A
Interaction 2: SCS
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Engineered Coating Systems
Program ID: Not reported
Date Interaction: 1999-06-03 00:00:00
Date Interaction 3: State Cleanup Site
Latitude: 47.471974324999998
Longitude: -121.735725235

RCRA NonGen / NLR:

Date form received by agency: 2018-02-16 00:00:00.0
Facility name: ESTATE OF DANIEL H CAHILL
Facility address: 45120 SE NORTH BEND WAY
NORTH BEND, WA 98045
EPA ID: WAR000008474
Mailing address: 1525 N KENTUCKY ST
ARLINGTON, WA 22205
Contact: ROBERT CAHILL
Contact address: 1525 N KENTUCKY ST
ARLINGTON, VA 22205
Contact country: US
Contact telephone: 703-403-9770
Contact email: ROB.311.CAHILL@GMAIL.COM
EPA Region: 10
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: DRILLEVICH, VAL
Owner/operator address: 29712 226TH AVE SE
BLACK DIAMOND, WA 98010
Owner/operator country: US
Owner/operator telephone: 360-270-7605
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ESTATE OF DANIEL H CAHILL (Continued)

1001092193

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: DRLLEVICH, VAL
Owner/operator address: 29712 226TH AVE SE
BLACK DIAMOND, WA 98010

Owner/operator country: US
Owner/operator telephone: 360-270-7605
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: DRLLEVICH, VAL
Owner/operator address: 29712 226TH AVE SE
BLACK DIAMOND, WA 98010

Owner/operator country: US
Owner/operator telephone: 360-270-7605
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2000-01-01 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2018-02-15 00:00:00.0
Site name: ESTATE OF DANIEL H CAHILL
Classification: Large Quantity Generator

Date form received by agency: 2018-02-15 00:00:00.0
Site name: ESTATE OF DANIEL H CAHILL
Classification: Large Quantity Generator

Date form received by agency: 2018-02-13 00:00:00.0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ESTATE OF DANIEL H CAHILL (Continued)

1001092193

Site name: ESTATE OF DANIEL H CAHILL
Classification: Not a generator, verified

Date form received by agency: 2017-12-15 00:00:00.0

Site name: ESTATE OF DANIEL H CAHILL
Classification: Large Quantity Generator

Date form received by agency: 1997-06-07 00:00:00.0

Site name: ENGINEERED COATING SYSTEMS
Classification: Not a generator, verified

Date form received by agency: 1997-06-06 00:00:00.0

Site name: ENGINEERED COATING SYSTEMS
Classification: Not a generator, verified

Date form received by agency: 1997-06-06 00:00:00.0

Site name: ENGINEERED COATING SYSTEMS
Classification: Not a generator, verified

Date form received by agency: 1997-06-06 00:00:00.0

Site name: ENGINEERED COATING SYSTEMS
Classification: Not a generator, verified

Date form received by agency: 1997-02-10 00:00:00.0

Site name: ENGINEERED COATING SYSTEMS
Classification: Small Quantity Generator

Date form received by agency: 1996-03-13 00:00:00.0

Site name: ENGINEERED COATING SYSTEMS
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: WT02
. Waste name: Washington State Dangerous Toxic Waste with a toxic constituents concentration greater than or equal to 0.001% and less than 1.0%, determined by biological testing methods or a book designation procedure.

Violation Status: No violations found

FINDS:

Registry ID: 110005404400
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110005404400

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ESTATE OF DANIEL H CAHILL (Continued)

1001092193

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1001092193
Registry ID: 110005404400
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110005404400>

319

Target

Property

NORTH BEND, WA

WA SPILLS

S120066787

N/A

SPILLS:

**Actual:
498 ft.**

**Focus Map:
18**

Name: Not reported
Address: Not reported
City,State,Zip: NORTH BEND, WA
Facility ID: 91696
Medium: Impermeable Containment
Material Desc: DIESEL/MARINE GAS OIL
Material Qty: 30
Material Units: Not reported
Date Received: Not reported
Contact Name: Not reported
Incident Date: 12/14/2016
Incident Category Type: Oil Spill
Incident Category: Oil Spill
Latitude: 47.47290
Longitude: -121.76120
Source Type: Vehicle
Source: Commercial Truck
Vessel Facility Name2: Not reported
Recovered Quantity: 30
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: NETWORK TRANSPORTATION LLC

Map ID	MAP FINDINGS			
Direction				
Distance				
Elevation	Site		Database(s)	EDR ID Number EPA ID Number
320	PSE		WA SPILLS	S109613659
Target	44504 SE 142ND ST			N/A
Property	NORTH BEND, WA			
	SPILLS:			
	Name:	PSE		
Actual:	Address:	44504 SE 142ND ST		
523 ft.	City,State,Zip:	NORTH BEND, WA		
Focus Map:	Facility ID:	613789		
19	Medium:	SOIL		
	Material Desc:	PETROLEUM - MINERAL OIL		
	Material Qty:	5		
	Material Units:	GALLON		
	Date Received:	07/01/2009		
	Contact Name:	Not reported		
	Incident Date:	Not reported		
	Incident Category Type:	Not reported		
	Incident Category:	Not reported		
	Latitude:	Not reported		
	Longitude:	Not reported		
	Source Type:	Not reported		
	Source:	Not reported		
	Vessel Facility Name2:	Not reported		
	Recovered Quantity:	Not reported		
	Resp Party Contact:	Not reported		
	Cause:	Not reported		
	Cause Type:	Not reported		
	Resp Party Name:	Not reported		
321	TANNER HEADQUARTERS		WA ALLSITES	S121970801
Target				N/A
Property	NORTH BEND, WA 98045			
	ALLSITES:			
	Name:	TANNER HEADQUARTERS		
Actual:	Facility Id:	94293		
629 ft.				
Focus Map:				
19				
322	I90 CORPORATE PARK		WA ALLSITES	1011266992
Target	46501 & 46511 SE NORTHBEND WAY		WA CSCSL NFA	N/A
Property	NORTH BEND, WA 98045		FINDS	
	ALLSITES:			
	Name:	I90 CORPORATE PARK		
Actual:	Facility Id:	8801624		
710 ft.				
Focus Map:	Interaction:	23495		
20	Interaction 1:	I		
	Interaction 2:	VOLCLNST		
	Ecology Program:	TOXICS		
	Program Data:	ISIS		
	Facility Alt.:	I90 Corporate Park		
	Program ID:	NW1890		
	Date Interaction:	2008-02-06 00:00:00		

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

I90 CORPORATE PARK (Continued)

1011266992

Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.472295322000001
Longitude: -121.71869623800001

CSCSL NFA:

Name: I90 CORPORATE PARK
Address: 46501 & 46511 SE NORTHBEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 8801624
CS Id: 3381
NFA Date: 08/26/2008
Alternate Site Names: PUGET WESTERN'S FORRISTER PROPERTY
NFA Reason: NFA-Voluntary Cleanup Program Review
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum Products-Unspecified
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.472301
Longitude: -121.718711

FINDS:

Registry ID: 110036139862
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110036139862

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

323 SNOQUALMIE VALLEY SCHOOL DIST
Target 46837 SE MIDDLE FORK RD
Property NORTH BEND, WA 98045

WA ALLSITES 1000838598
RCRA NonGen / NLR WAD988513859
FINDS
ECHO

Actual: 720 ft.
Focus Map: 20

ALLSITES:
Name: SNOQUALMIE VALLEY SCHOOL DIST
Facility Id: 88692836

Interaction: 70358
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAD988513859

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SNOQUALMIE VALLEY SCHOOL DIST (Continued)

1000838598

Date Interaction: 1992-11-09 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.474794324999998
Longitude: -121.742055233

RCRA NonGen / NLR:

Date form received by agency: 1997-06-27 00:00:00.0
Facility name: SNOQUALMIE VALLEY SCHOOL DIST
Facility address: 46837 SE MIDDLE FORK RD
NORTH BEND, WA 98045
EPA ID: WAD988513859
Mailing address: PO BOX 400
SNOQUALMIE, WA 98065
Contact: DON GRINA
Contact address: PO BOX 400
SNOQUALMIE, WA 98065
Contact country: US
Contact telephone: 425-888-0351
Contact email: Not reported
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: PARSONS, KEN
Owner/operator address: PO BOX 1058
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 425-888-0478
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: SNOQUALMIE VALLEY SCHOOL DIST
Owner/operator address: 46837 SE MIDDLE FORK RD
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: PARSONS, KEN
Owner/operator address: PO BOX 1058
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 425-888-0478

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SNOQUALMIE VALLEY SCHOOL DIST (Continued)

1000838598

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 1997-05-30 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 1997-06-26 00:00:00.0
Site name: SNOQUALMIE VALLEY SCHOOL DIST
Classification: Not a generator, verified

Date form received by agency: 1997-06-26 00:00:00.0
Site name: SNOQUALMIE VALLEY SCHOOL DIST
Classification: Not a generator, verified

Date form received by agency: 1997-06-26 00:00:00.0
Site name: SNOQUALMIE VALLEY SCHOOL DIST
Classification: Not a generator, verified

Date form received by agency: 1993-12-31 00:00:00.0
Site name: SNOQUALMIE VALLEY SCHOOL DIST
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110005380792
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110005380792

Environmental Interest/Information System:

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Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SNOQUALMIE VALLEY SCHOOL DIST (Continued)

1000838598

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000838598
Registry ID: 110005380792
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110005380792>

324
Target
Property
CEDAR VILLAGE DIVISION 2 (D90643)
14219 443RED PLACE SE
NORTH BEND, WA 98045

WA UIC
S121083652
N/A

Actual:
513 ft.
Focus Map:
18

UIC:
Name: CEDAR VILLAGE DIVISION 2 (D90643)
Address: 14219 443RED PLACE SE
City,State,Zip: NORTH BEND, WA 98045
Site Number: 19757
Owner Name: King County WLRD DSS Cedar Village Division 2 (D90643)
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.471667
Longitude: 121.7475
Well Name: 14127
Registration Type: Municipal Stormwater
Construction Date: 12/24/1984
Construction Type: Other
Depth: 2

BW325
Target
Property
CASCADE GOLF COURSE
14303 436 AVE SE
NORTH BEND, WA 98045

FINDS
1007076016
N/A

Site 1 of 2 in cluster BW

Actual:
502 ft.
Focus Map:
18

FINDS:
Registry ID: 110015526661
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015526661

Environmental Interest/Information System:

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[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BW326 **CASCADE GOLF COURSE**
Target **14303 436 AVE SE**
Property **NORTH BEND, WA 98045**

WA UST **U000800884**
WA ALLSITES **N/A**

Site 2 of 2 in cluster BW

Actual:
502 ft.

UST:

Focus Map:
18

Name: CASCADE GOLF COURSE
Address: 14303 436 AVE SE
City: NORTH BEND
Zip: 98045
Facility ID: 12124286
Site Id: 8168
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.472034
Decimal Longitude: -121.7598

Tank Name: 1
Tag Number: Not reported
Tank Status: Closure in Process
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: CASCADE GOLF COURSE
Facility Id: 12124286

Interaction: 26563
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 8168
Date Interaction: 2000-02-29 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.472028326999997

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CASCADE GOLF COURSE (Continued)

U000800884

Longitude: -121.759785231

327 PSE
Target 43816 SE 143RD ST
Property NORTH BEND, WA

WA SPILLS S110066814
N/A

SPILLS:

Actual: Name: PSE
502 ft. Address: 43816 SE 143RD ST
City,State,Zip: NORTH BEND, WA
Focus Map: Facility ID: 616707
18 Medium: SOIL
Material Desc: PETROLEUM - MINERAL OIL
Material Qty: 40
Material Units: GALLON
Date Received: 11/23/2009
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

BX328 EM MATSON JR CO INC
Target 45620 SE NORTH BEND WAY
Property NORTH BEND, WA 98045

WA ALLSITES 1007123415
FTTS N/A
HIST FTTS
WA MANIFEST

Site 1 of 7 in cluster BX

Actual: **ALLSITES:**
614 ft. Name: EM MATSON JR CO INC
Focus Map: Facility Id: 798308
19
Interaction: 7323
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Not reported
Program ID: CRK000053890
Date Interaction: 2003-09-15 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.470205348999997
Longitude: -121.73091417400001

Interaction: 106553

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EM MATSON JR CO INC (Continued)

1007123415

Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Matson LLC Div of Central Garden & Pet
Program ID: WAH000044444
Date Interaction: 2013-11-08 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.47020534899997
Longitude: -121.73091417400001

FTTS INSP:

Inspection Number: 200209273685 1
Region: 10
Inspection Date: 09/27/02
Inspector: JANUCH
Violation occurred: No
Investigation Type: General Product Review
Investigation Reason: Neutral Scheme, Region
Legislation Code: FIFRA
Facility Function: Producer

HIST FTTS INSP:

Inspection Number: 200209273685 1
Region: 10
Inspection Date: Not reported
Inspector: JANUCH
Violation occurred: No
Investigation Type: General Product Review
Investigation Reason: Neutral Scheme, Region
Legislation Code: FIFRA
Facility Function: Producer

WA MANIFEST:

Name: MATSON LLC DIV OF CENTRAL GARDEN & PET
Address: 45620 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility Address 2: Not reported
Facility ID: 798308
EPA ID: WAH000044444
NAICS: 325320
State Waste Code Desc: WT02
Federal Waste Code Desc: Not reported
Form Comm: Not reported
Data Year: 2013
Permit by Rule: False
Mailing Address 2: Not reported
Treatment by Generator: False
Mixed Radioactive Waste: False
Importer of Hazardous Waste: False
Immediate Recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of Dangerous Fuel Waste: False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EM MATSON JR CO INC (Continued)

1007123415

Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602310161
Business Type:	Formulating
Mail Name:	Matson LLC
Mailing Address:	PO Box 1820
Mailing City,State,Zip:	North Bend, WA 98045
Legal Organization Name:	Central Garden & Pet
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	PO Box 1820
Legal Address 2:	Not reported
Legal City,State,Zip:	North Bend, WA 98045
Legal Phone Number:	925-948-4000
Legal Effective Date:	01/01/2007
Land Organization Name:	Matson-Grassman LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	PO Box 1820
Land City,State,Zip:	North Bend, WA 98045
Land Phone Number:	425-888-6212
Operator Organization Name:	Matson LLC
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 1820
Operator Address 2:	Not reported
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	425-888-6212
Operator Effective Date:	01/01/1998
Site Contact:	Ken Matson
Site Contact Address:	PO Box 1820
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	425-888-6212
Site Contact Email:	kmatson@central.com
Gen Status Code:	LQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	True
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EM MATSON JR CO INC (Continued)

1007123415

Site Contact Address 2:

Not reported

BX329 **MATSON, LLC**
Target **45620 SE N BEND WAY**
Property **NORTH BEND, WA 98045**

ICIS **1016307416**
FINDS **N/A**
ECHO

Site 2 of 7 in cluster BX

Actual:
614 ft.

ICIS:

Focus Map:
19

Enforcement Action ID: 10-2013-0053
FRS ID: 110015737862
Action Name: Matson, LLC
Facility Name: MATSON, LLC
Facility Address: 45620 SE N BEND WAY
NORTH BEND, WA 98045
Enforcement Action Type: FIFRA 13A AO For Stop Sale, Use, Or Removal
Facility County: KING
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 13A
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 47.470678
Longitude in Decimal Degrees: -121.730850
Permit Type Desc: Not reported
Program System Acronym: 3000030250
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Facility Name: EM MATSON JR CO INC
Address: 45620 SE NORTH BEND WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: EM MATSON JR CO INC
Address: 45620 SE NORTH BEND WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: EM MATSON JR CO INC
Address: 45620 SE NORTH BEND WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: EM MATSON JR CO INC
Address: 45620 SE NORTH BEND WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1016307416

Facility Name: EM MATSON JR CO INC
Address: 45620 SE NORTH BEND WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

FINDS:

Registry ID: 110015737862
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015737862

Environmental Interest/Information System:

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NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

SSTS (Section Seven Tracking System) evolved from the FIFRA and TSCA Enforcement System (FATES). SSTS tracks the registration of all pesticide-producing establishments and tracks annually the types and amounts of pesticides, active ingredients, and related devices that are produced, sold, or distributed each year.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and its Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1016307416
Registry ID: 110015737862
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110015737862>

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BX330 **MATSON, LLC**
Target **45620 SE N BND WAY**
Property **, WA**

SSTS **1014347548**
 N/A

Site 3 of 7 in cluster BX

Actual:
614 ft.
Focus Map:
19

SSTS:

Name: MATSON, LLC
Address: 45620 SE N BND WAY
City,State,Zip: NORTH BEND, WA 98045
Report Year: 2013
Registration Number: 8119-WA-1

Pre 2016:

Registration Number: 8119-WA-1
Name: MATSON, LLC
Address: 45620 SE N BND WAY
Address 2: Not reported
Country Code: USA
Country: United States
Contact Name: JOSH MATSON
Contact Title: DIRECTOR OF OPERATIONS
Contact Telephone: (253) 258-3110
Contact Email: JMATSON@CENTRAL.COM
Product Name: CORRY'S INSECT KILLER & CORRY'S/DEADLINE BUG BAIT
Product Code: Not reported
EPA Product Registration Number: 8119-5
Product Type: 2 - End Use Product
Product Classification: 61 - Molluscicide (e.g. slug bait)
Product Use: Not reported
Market Type: USA
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: 2 - All Other Products

Registration Number: 8119-WA-1
Name: MATSON, LLC
Address: 45620 SE N BND WAY
Address 2: Not reported
Country Code: USA
Country: United States
Contact Name: JOSH MATSON
Contact Title: DIRECTOR OF OPERATIONS
Contact Telephone: (253) 258-3110
Contact Email: JMATSON@CENTRAL.COM
Product Name: CORRY'S SLUG & SNAIL DEATH & ABN
Product Code: Not reported
EPA Product Registration Number: 8119-11
Product Type: 2 - End Use Product
Product Classification: 61 - Molluscicide (e.g. slug bait)
Product Use: Not reported
Market Type: USA
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: 2 - All Other Products

Report Year: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1014347548

Registration Number: 8119-WA-1

Report Year: 2012

Registration Number: 8119-WA-1

Pre 2016:

Registration Number: 8119-WA-1

Name: MATSON, LLC

Address: 45620 SE N BND WAY

Address 2: Not reported

Country Code: USA

Country: United States

Contact Name: JOSH MATSON

Contact Title: DIRECTOR OF OPERATIONS

Contact Telephone: (253) 258-3110

Contact Email: JMATSON@CENTRAL.COM

Product Name: CORRY'S SLUG & SNAIL PELLETS

Product Code: Not reported

EPA Product Registration Number: 8119-13

Product Type: 2 - End Use Product

Product Classification: 61 - Molluscicide (e.g. slug bait)

Product Use: Not reported

Market Type: USA

Product Unit of Measure: Not reported

Region: 10

Zero Production: Not reported

RUP: 2 - All Other Products

Registration Number: 8119-WA-1

Name: MATSON, LLC

Address: 45620 SE N BND WAY

Address 2: Not reported

Country Code: USA

Country: United States

Contact Name: JOSH MATSON

Contact Title: DIRECTOR OF OPERATIONS

Contact Telephone: (253) 258-3110

Contact Email: JMATSON@CENTRAL.COM

Product Name: DEADLINE RAINTOUGH SLUG & SNAIL KILLER

Product Code: Not reported

EPA Product Registration Number: 8119-9

Product Type: 3 - Repackages/Relabeled

Product Classification: 61 - Molluscicide (e.g. slug bait)

Product Use: Not reported

Market Type: USA

Product Unit of Measure: Not reported

Region: 10

Zero Production: Not reported

RUP: 2 - All Other Products

Registration Number: 8119-WA-1

Name: MATSON, LLC

Address: 45620 SE N BND WAY

Address 2: Not reported

Country Code: USA

Country: United States

Contact Name: JOSH MATSON

Contact Title: DIRECTOR OF OPERATIONS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1014347548

Contact Telephone: (253) 258-3110
Contact Email: JMATSON@CENTRAL.COM
Product Name: CORRY'S INSECT KILLER & CORRY'S/DEADLINE BUG BAIT AND ABN
Product Code: Not reported
EPA Product Registration Number: 8119-5-33116
Product Type: 2 - End Use Product
Product Classification: 61 - Molluscicide (e.g. slug bait)
Product Use: Not reported
Market Type: USA
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: 2 - All Other Products

Report Year: 2009
Registration Number: 008119-WA-001

Pre 2016:

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 SE N BND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: KEN MATSON DIRECTOR OF OPERATIONS P: 425-888-6212 E: KMATSON@CENTRAL.COM

Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: COOKE PEST GRANULES
Product Code: Not reported
EPA Product Registration Number: 8119-5-33116
Product Type: 2
Product Classification: 61
Product Use: Not reported
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: No
RUP: 2

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 SE N BND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: KEN MATSON DIRECTOR OF OPERATIONS P: 425-888-6212 E: KMATSON@CENTRAL.COM

Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S INSECT KILLER & CORRY'S/DEADLINE BUG BAIT
Product Code: Not reported
EPA Product Registration Number: 8119-5
Product Type: 2
Product Classification: 61

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1014347548

Product Use:	Not reported
Market Type:	1
Product Unit of Measure:	Not reported
Region:	Not reported
Zero Production:	No
RUP:	2
Registration Number:	008119-WA-001
Name:	MATSON, LLC
Address:	45620 SE N BND WAY
Address 2:	Not reported
Country Code:	Not reported
Country:	Not reported
Contact Name:	KEN MATSON DIRECTOR OF OPERATIONS P: 425-888-6212 E: KMATSON@CENTRAL.COM
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported
Product Name:	LILLY MILLER MOSS OUT!
Product Code:	Not reported
EPA Product Registration Number:	802-591
Product Type:	3
Product Classification:	59
Product Use:	Not reported
Market Type:	1
Product Unit of Measure:	Not reported
Region:	Not reported
Zero Production:	No
RUP:	2
Registration Number:	008119-WA-001
Name:	MATSON, LLC
Address:	45620 SE N BND WAY
Address 2:	Not reported
Country Code:	Not reported
Country:	Not reported
Contact Name:	KEN MATSON DIRECTOR OF OPERATIONS P: 425-888-6212 E: KMATSON@CENTRAL.COM
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported
Product Name:	LILLY MILLER SLUG & SNAIL BAIT
Product Code:	Not reported
EPA Product Registration Number:	8119-11-33116
Product Type:	2
Product Classification:	61
Product Use:	Not reported
Market Type:	1
Product Unit of Measure:	Not reported
Region:	Not reported
Zero Production:	No
RUP:	2
Registration Number:	008119-WA-001
Name:	MATSON, LLC
Address:	45620 SE N BND WAY
Address 2:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1014347548

Country Code:	Not reported
Country:	Not reported
Contact Name:	KEN MATSON DIRECTOR OF OPERATIONS P: 425-888-6212 E: KMATSON@CENTRAL.COM
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported
Product Name:	LILLY MILLER SLUG & SNAIL MINI-PELLETS
Product Code:	Not reported
EPA Product Registration Number:	8119-13-33116
Product Type:	2
Product Classification:	61
Product Use:	Not reported
Market Type:	1
Product Unit of Measure:	Not reported
Region:	Not reported
Zero Production:	No
RUP:	2
Registration Number:	008119-WA-001
Name:	MATSON, LLC
Address:	45620 SE N BND WAY
Address 2:	Not reported
Country Code:	Not reported
Country:	Not reported
Contact Name:	KEN MATSON DIRECTOR OF OPERATIONS P: 425-888-6212 E: KMATSON@CENTRAL.COM
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported
Product Name:	MOSS B WARE
Product Code:	Not reported
EPA Product Registration Number:	10699-1
Product Type:	3
Product Classification:	59
Product Use:	Not reported
Market Type:	1
Product Unit of Measure:	Not reported
Region:	Not reported
Zero Production:	No
RUP:	2
Registration Number:	008119-WA-001
Name:	MATSON, LLC
Address:	45620 SE N BND WAY
Address 2:	Not reported
Country Code:	Not reported
Country:	Not reported
Contact Name:	KEN MATSON DIRECTOR OF OPERATIONS P: 425-888-6212 E: KMATSON@CENTRAL.COM
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported
Product Name:	CORRY'S SLUG & SNAIL DEATH & ABN
Product Code:	Not reported
EPA Product Registration Number:	8119-11
Product Type:	2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1014347548

Product Classification: 61
Product Use: Not reported
Market Type: 2
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: No
RUP: 2

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 SE N BND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: KEN MATSON DIRECTOR OF OPERATIONS P: 425-888-6212 E: KMATSON@CENTRAL.COM

Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL PELLETS
Product Code: Not reported
EPA Product Registration Number: 8119-13
Product Type: 2
Product Classification: 61
Product Use: Not reported
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: No
RUP: 2

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 SE N BND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: KEN MATSON DIRECTOR OF OPERATIONS P: 425-888-6212 E: KMATSON@CENTRAL.COM

Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: DEADLINE RAINTOUGH SLUG & SNAIL KILLER
Product Code: Not reported
EPA Product Registration Number: 8119-9
Product Type: 3
Product Classification: 61
Product Use: Not reported
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: No
RUP: 2

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 SE N BND WAY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1014347548

Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: KEN MATSON DIRECTOR OF OPERATIONS P: 425-888-6212 E: KMATSON@CENTRAL.COM
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: ELIMINATOR SLUG & SNAIL BAIT II
Product Code: Not reported
EPA Product Registration Number: 8119-11-59144
Product Type: 2
Product Classification: 61
Product Use: Not reported
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: No
RUP: 2

Report Year: 2011
Registration Number: 8119-WA-1

Pre 2016:

Registration Number: 8119-WA-1
Name: MATSON, LLC
Address: 45620 SE N BND WAY
Address 2: Not reported
Country Code: USA
Country: United States
Contact Name: JOSH MATSON
Contact Title: DIRECTOR OF OPERATIONS
Contact Telephone: (253) 258-3110
Contact Email: JMATSON@CENTRAL.COM
Product Name: CORRY'S SLUG & SNAIL DEATH & ABN (SUPP - 59144)
Product Code: Not reported
EPA Product Registration Number: 8119-11-59144
Product Type: 2 - End Use Product
Product Classification: 61 - Molluscicide (e.g. slug bait)
Product Use: Not reported
Market Type: USA and Foreign
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: 2 - All Other Products

Report Year: Not reported
Registration Number: 8119-WA-1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BX331 **E. M. MATSON JR CO., INC.**
Target **45620 S.E. N BEND WAY**
Property **NORTH BEND, WA 98045**

SSTS **1005428217**
N/A

Site 4 of 7 in cluster BX

Actual:
614 ft.

SSTS:

Focus Map:
19

Name: E. M. MATSON JR CO., INC.
Address: 45620 S.E. N BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Report Year: 1996
Registration Number: 008119WA 001

Pre 2016:

Registration Number: 008119WA 001
Name: E. M. MATSON JR CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH
Product Code: 1
EPA Product Registration Number: 00811900001
Product Type: 2
Product Classification: 20
Product Use: 1
Market Type: 2
Product Unit of Measure: P
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA 001
Name: E. M. MATSON JR CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG, SNAIL & INSECT KILLER
Product Code: 1
EPA Product Registration Number: 00811900005
Product Type: 2
Product Classification: 20
Product Use: 1
Market Type: 1
Product Unit of Measure: P
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BX332 **E.M. MATSON, JR. CO., INC.**
Target **45620 S.E. N BEND WAY**
Property **NORTH BEND, WA 98045**

SSTS **1004612914**
N/A

Site 5 of 7 in cluster BX

Actual:
614 ft.

SSTS:

Focus Map:
19

Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
City,State,Zip: NORTH BEND 98045
Report Year: 1999
Registration Number: 008119WA 001

Pre 2016:

Registration Number: 008119WA 001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH_ETC.
Product Code: 1
EPA Product Registration Number: 00811900001
Product Type: 2
Product Classification: 01
Product Use: 2
Market Type: 2
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA 001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG, SNAIL & INSECT KILLER
Product Code: 1
EPA Product Registration Number: 00811900005
Product Type: 2
Product Classification: 01
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA 001
Name: E.M. MATSON, JR. CO., INC.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: LILLY MILLER MOSS KIL GRANULES
Product Code: 1
EPA Product Registration Number: 00080200591
Product Type: 3
Product Classification: 05
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA 001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: MOSS B WARE, BLACK MAGIC MOSS STOP
Product Code: 1
EPA Product Registration Number: 01069900001
Product Type: 3
Product Classification: 05
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Report Year: 2004
Registration Number: 008119WA001

Pre 2016:

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH (AND OTHER BRAND NAMES)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Product Code: 1
EPA Product Registration Number: 100811900011
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH AND ALTERNATE BRAND NAMES
Product Code: 1
EPA Product Registration Number: 100811900001
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 2
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL PELLETS (MP)_AND OTHER BRAND NAMES
Product Code: 1
EPA Product Registration Number: 100811900013
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG, SNAIL & INSECT KILLER & ALT. BRAND NAMES
Product Code: 1
EPA Product Registration Number: 100811900005
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: DEADLINE RAINTOUGH SLUG & SNAIL PELLETS
Product Code: 1
EPA Product Registration Number: 100811900009
Product Type: 3
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: MOSS B WARE
Product Code: 1
EPA Product Registration Number: 101069900001
Product Type: 3
Product Classification: 05

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Report Year: 2005
Registration Number: 008119WA001

Pre 2016:

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH (AND OTHER BRAND NAMES)
Product Code: 1
EPA Product Registration Number: 00811900011
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH AND ALTERNATE BRAND NAMES
Product Code: 1
EPA Product Registration Number: 00811900001
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 2
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL PELLETS (MP)_AND OTHER BRAND NAMES
Product Code: 1
EPA Product Registration Number: 00811900013
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG, SNAIL & INSECT KILLER & ALT. BRAND NAMES
Product Code: 1
EPA Product Registration Number: 00811900005
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: DEADLINE RAINTOUGH SLUG & SNAIL PELLETS
Product Code: 1
EPA Product Registration Number: 00811900009
Product Type: 3
Product Classification: 12

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: MOSS B WARE
Product Code: 1
EPA Product Registration Number: 01069900001
Product Type: 3
Product Classification: 05
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Report Year: 2002
Registration Number: 008119WA001

Pre 2016:

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH AND ALTERNATE BRAND NAMES
Product Code: 1
EPA Product Registration Number: 00811900001
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 2
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG, SNAIL & INSECT KILLER & ALT. BRAND NAMES
Product Code: 1
EPA Product Registration Number: 00811900005
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: MOSS B WARE
Product Code: 1
EPA Product Registration Number: 01069900001
Product Type: 3
Product Classification: 05
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: RAINTOUGH DEADLINE SLUG & SNAIL KILLER
Product Code: 1
EPA Product Registration Number: 00811900009
Product Type: 3
Product Classification: 12

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Report Year: Not reported
Registration Number: 008119WA 001

Report Year: 1997
Registration Number: 008119WA 001

Pre 2016:

Registration Number: 008119WA 001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH
Product Code: 1
EPA Product Registration Number: 00811900001
Product Type: 2
Product Classification: 20
Product Use: 1
Market Type: 2
Product Unit of Measure: P
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA 001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG, SNAIL & INSECT KILLER
Product Code: 1
EPA Product Registration Number: 00811900005
Product Type: 2
Product Classification: 20
Product Use: 1
Market Type: 1
Product Unit of Measure: P
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Report Year: 2000
Registration Number: 008119WA 001

Pre 2016:

Registration Number: 008119WA 001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH AND ALTERNATE BRAND NAMES
Product Code: 1
EPA Product Registration Number: 00811900001
Product Type: 2
Product Classification: 01
Product Use: 2
Market Type: 2
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA 001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG, SNAIL & INSECT KILLER
Product Code: 1
EPA Product Registration Number: 00811900005
Product Type: 2
Product Classification: 01
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA 001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Product Name: MOSS B WARE
Product Code: 1
EPA Product Registration Number: 01069900001
Product Type: 3
Product Classification: 05
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Report Year: 2003
Registration Number: 008119WA001

Pre 2016:

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH (L.25)
Product Code: 1
EPA Product Registration Number: 00811900011
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH AND ALTERNATE BRAND NAMES
Product Code: 1
EPA Product Registration Number: 00811900001
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 2
Product Unit of Measure: Not reported
Region: 10

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Zero Production:	Not reported
RUP:	Not reported
Registration Number:	008119WA001
Name:	E.M. MATSON, JR. CO., INC.
Address:	45620 S.E. N BEND WAY
Address 2:	Not reported
Country Code:	Not reported
Country:	Not reported
Contact Name:	Not reported
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported
Product Name:	CORRY'S SLUG & SNAIL PELLETS (MP)
Product Code:	1
EPA Product Registration Number:	00811900013
Product Type:	2
Product Classification:	12
Product Use:	2
Market Type:	1
Product Unit of Measure:	Not reported
Region:	10
Zero Production:	Not reported
RUP:	Not reported
Registration Number:	008119WA001
Name:	E.M. MATSON, JR. CO., INC.
Address:	45620 S.E. N BEND WAY
Address 2:	Not reported
Country Code:	Not reported
Country:	Not reported
Contact Name:	Not reported
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported
Product Name:	CORRY'S SLUG, SNAIL & INSECT KILLER & ALT. BRAND NAMES
Product Code:	1
EPA Product Registration Number:	00811900005
Product Type:	2
Product Classification:	12
Product Use:	2
Market Type:	1
Product Unit of Measure:	Not reported
Region:	10
Zero Production:	Not reported
RUP:	Not reported
Registration Number:	008119WA001
Name:	E.M. MATSON, JR. CO., INC.
Address:	45620 S.E. N BEND WAY
Address 2:	Not reported
Country Code:	Not reported
Country:	Not reported
Contact Name:	Not reported
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Product Name: DEADLINE RAINTOUGH SLUG & SNAIL PELLETS
Product Code: 1
EPA Product Registration Number: 00811900009
Product Type: 3
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: MOSS B WARE
Product Code: 1
EPA Product Registration Number: 01069900001
Product Type: 3
Product Classification: 05
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Report Year: 2001
Registration Number: 008119WA001

Pre 2016:

Registration Number: 008119WA001
Name: E.M. MATSON, JR. CO., INC.
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: RAINTOUGH DEADLINE SLUG & SNAIL KILLER
Product Code: 1
EPA Product Registration Number: 00811900009
Product Type: 3
Product Classification: 01
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Zero Production:	Not reported
RUP:	Not reported
Registration Number:	008119WA001
Name:	E.M. MATSON, JR. CO., INC.
Address:	45620 S.E. N BEND WAY
Address 2:	Not reported
Country Code:	Not reported
Country:	Not reported
Contact Name:	Not reported
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported
Product Name:	CORRY'S SLUG & SNAIL DEATH AND ALTERNATE BRAND NAMES
Product Code:	1
EPA Product Registration Number:	00811900001
Product Type:	2
Product Classification:	01
Product Use:	2
Market Type:	2
Product Unit of Measure:	Not reported
Region:	10
Zero Production:	Not reported
RUP:	Not reported
Registration Number:	008119WA001
Name:	E.M. MATSON, JR. CO., INC.
Address:	45620 S.E. N BEND WAY
Address 2:	Not reported
Country Code:	Not reported
Country:	Not reported
Contact Name:	Not reported
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported
Product Name:	CORRY'S SLUG, SNAIL & INSECT KILLER & ALT. BRAND NAMES
Product Code:	1
EPA Product Registration Number:	00811900005
Product Type:	2
Product Classification:	01
Product Use:	2
Market Type:	1
Product Unit of Measure:	Not reported
Region:	10
Zero Production:	Not reported
RUP:	Not reported
Registration Number:	008119WA001
Name:	E.M. MATSON, JR. CO., INC.
Address:	45620 S.E. N BEND WAY
Address 2:	Not reported
Country Code:	Not reported
Country:	Not reported
Contact Name:	Not reported
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E.M. MATSON, JR. CO., INC. (Continued)

1004612914

Product Name: MOSS B WARE
Product Code: 1
EPA Product Registration Number: 01069900001
Product Type: 3
Product Classification: 05
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

BX333 **MATSON LLC DIV OF CENTRAL GARDEN & PET**
Target **45620 SE NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

RCRA NonGen / NLR **1016977516**
WAH000044444

Site 6 of 7 in cluster BX

Actual: RCRA NonGen / NLR:
614 ft. Date form received by agency: 2014-01-08 00:00:00.0
Focus Map: Facility name: MATSON LLC DIV OF CENTRAL GARDEN & PET
19 Facility address: 45620 SE NORTH BEND WAY
NORTH BEND, WA 98045
EPA ID: WAH000044444
Mailing address: PO BOX 1820
NORTH BEND, WA 98045
Contact: KEN MATSON
Contact address: PO BOX 1820
NORTH BEND, WA 98045
Contact country: US
Contact telephone: 425-888-6212
Contact email: KMATSON@CENTRAL.COM
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: CENTRAL GARDEN PET
Owner/operator address: PO BOX 1820
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 925-948-4000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2007-01-01 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: MATSON-GRASSMAN LLC
Owner/operator address: PO BOX 1820
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 425-888-6212
Owner/operator email: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON LLC DIV OF CENTRAL GARDEN & PET (Continued)

1016977516

Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MATSON LLC
Owner/operator address: PO BOX 1820
NORTH BEND, WA 98045

Owner/operator country: US
Owner/operator telephone: 425-888-6212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2014-01-07 00:00:00.0
Site name: MATSON LLC DIV OF CENTRAL GARDEN & PET
Classification: Not a generator, verified

Date form received by agency: 2014-01-07 00:00:00.0
Site name: MATSON LLC DIV OF CENTRAL GARDEN & PET
Classification: Large Quantity Generator

Date form received by agency: 2014-01-07 00:00:00.0
Site name: MATSON LLC DIV OF CENTRAL GARDEN & PET
Classification: Not a generator, verified

Date form received by agency: 2013-11-08 00:00:00.0
Site name: MATSON LLC DIV OF CENTRAL GARDEN & PET
Classification: Large Quantity Generator

Hazardous Waste Summary:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON LLC DIV OF CENTRAL GARDEN & PET (Continued)

1016977516

Waste code: WT02
Waste name: Washington State Dangerous Toxic Waste with a toxic constituents concentration greater than or equal to 0.001% and less than 1.0%, determined by biological testing methods or a book designation procedure.

Violation Status: No violations found

BX334 MATSON, LLC
Target 45620 S.E. N BEND WAY
Property NORTH BEND, WA 98045

SSTS 1010569904
N/A

Site 7 of 7 in cluster BX

Actual:
614 ft.

Focus Map:
19

SSTS:

Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Report Year: 2006
Registration Number: 008119-WA-001

Pre 2016:

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH (& OTHER BRAND NAM
Product Code: Not reported
EPA Product Registration Number: 008119-00011
Product Type: END-USE BLEND, FORMULATION, CONCENTRATE
Product Classification: OTHER PESTICIDES (SUCH AS DEET)
Product Use: ALL OTHER PRODUCTS
Market Type: MARKETING IN UNITED STATES
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH AND ALTERNATE BRAN
Product Code: Not reported
EPA Product Registration Number: 008119-00001
Product Type: END-USE BLEND, FORMULATION, CONCENTRATE
Product Classification: OTHER PESTICIDES (SUCH AS DEET)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1010569904

Product Use: ALL OTHER PRODUCTS
Market Type: EXPORTED OUT OF UNITED STATES
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL PELLETS (MP)(AND OTHER B
Product Code: Not reported
EPA Product Registration Number: 008119-00013
Product Type: END-USE BLEND, FORMULATION, CONCENTRATE
Product Classification: OTHER PESTICIDES (SUCH AS DEET)
Product Use: ALL OTHER PRODUCTS
Market Type: MARKETING IN UNITED STATES
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG, SNAIL & INSECT KILLER & ALT. BR
Product Code: Not reported
EPA Product Registration Number: 008119-00005
Product Type: END-USE BLEND, FORMULATION, CONCENTRATE
Product Classification: OTHER PESTICIDES (SUCH AS DEET)
Product Use: ALL OTHER PRODUCTS
Market Type: MARKETING IN UNITED STATES
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1010569904

Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: DEADLINE RAINTOUGH SLUG & SNAIL PELLETS
Product Code: Not reported
EPA Product Registration Number: 008119-00009
Product Type: REPACKAGED OR RELABELED
Product Classification: OTHER PESTICIDES (SUCH AS DEET)
Product Use: ALL OTHER PRODUCTS
Market Type: MARKETING IN UNITED STATES
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: MOSS B WARE
Product Code: Not reported
EPA Product Registration Number: 010699-00001
Product Type: REPACKAGED OR RELABELED
Product Classification: ALGICIDE
Product Use: ALL OTHER PRODUCTS
Market Type: MARKETING IN UNITED STATES
Product Unit of Measure: Not reported
Region: Not reported
Zero Production: Not reported
RUP: Not reported

Report Year: 2007
Registration Number: 008119WA001

Pre 2016:

Registration Number: 008119WA001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH (3.25) + ABN (SUPP-71376, 59144)
Product Code: 1
EPA Product Registration Number: 00811900011
Product Type: 2
Product Classification: 12

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1010569904

Product Use: 2
Market Type: 2
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL PELLETS (MP)+ABN(SUPP-8845,33116,71376)
Product Code: 1
EPA Product Registration Number: 00811900013
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG, SNAIL & INSECT KILLER + ABN
Product Code: 1
EPA Product Registration Number: 00811900005
Product Type: 2
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1010569904

Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: DEADLINE RAINTOUGH SLUG & SNAIL PELLETS
Product Code: 1
EPA Product Registration Number: 00811900009
Product Type: 3
Product Classification: 12
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: LILLY MILLER MOSS OUT!
Product Code: 1
EPA Product Registration Number: 00080200591
Product Type: 3
Product Classification: 05
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: Not reported
RUP: Not reported

Registration Number: 008119WA001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: MOSS B WARE
Product Code: 1
EPA Product Registration Number: 01069900001
Product Type: 3
Product Classification: 05
Product Use: 2
Market Type: 1
Product Unit of Measure: Not reported
Region: 10

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)

1010569904

Zero Production: Not reported
RUP: Not reported

Report Year: 2008
Registration Number: 008119-WA-001

Pre 2016:

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: DAVID L. GRASSMAN PRESIDENT P: 206-762-2066
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL DEATH + ABN (SUPP-71376, 59144)
Product Code: Not reported
EPA Product Registration Number: 8119-11
Product Type: 2
Product Classification: 04
Product Use: Not reported
Market Type: 2
Product Unit of Measure: Not reported
Region: 10
Zero Production: No
RUP: 2

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported
Contact Name: DAVID L. GRASSMAN PRESIDENT P: 206-762-2066
Contact Title: Not reported
Contact Telephone: Not reported
Contact Email: Not reported
Product Name: CORRY'S SLUG & SNAIL PELLETS+ABN(SUPP-8845,33116,71376)
Product Code: Not reported
EPA Product Registration Number: 8119-13
Product Type: 2
Product Classification: 04
Product Use: Not reported
Market Type: 1
Product Unit of Measure: Not reported
Region: 10
Zero Production: No
RUP: 2

Registration Number: 008119-WA-001
Name: MATSON, LLC
Address: 45620 S.E. N BEND WAY
Address 2: Not reported
Country Code: Not reported
Country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)**1010569904**

Contact Name: DAVID L. GRASSMAN PRESIDENT P: 206-762-2066
 Contact Title: Not reported
 Contact Telephone: Not reported
 Contact Email: Not reported
 Product Name: CORRY'S SLUG, SNAIL & INSECT KILLER + ABN_(SUPP 33116)
 Product Code: Not reported
 EPA Product Registration Number: 8119-5
 Product Type: 2
 Product Classification: 04
 Product Use: Not reported
 Market Type: 1
 Product Unit of Measure: Not reported
 Region: 10
 Zero Production: No
 RUP: 2

Registration Number: 008119-WA-001
 Name: MATSON, LLC
 Address: 45620 S.E. N BEND WAY
 Address 2: Not reported
 Country Code: Not reported
 Country: Not reported
 Contact Name: DAVID L. GRASSMAN PRESIDENT P: 206-762-2066
 Contact Title: Not reported
 Contact Telephone: Not reported
 Contact Email: Not reported
 Product Name: DEADLINE RAINTOUGH SLUG & SNAIL PELLETS
 Product Code: Not reported
 EPA Product Registration Number: 8119-9
 Product Type: 3
 Product Classification: 04
 Product Use: Not reported
 Market Type: 1
 Product Unit of Measure: Not reported
 Region: 10
 Zero Production: No
 RUP: 2

Registration Number: 008119-WA-001
 Name: MATSON, LLC
 Address: 45620 S.E. N BEND WAY
 Address 2: Not reported
 Country Code: Not reported
 Country: Not reported
 Contact Name: DAVID L. GRASSMAN PRESIDENT P: 206-762-2066
 Contact Title: Not reported
 Contact Telephone: Not reported
 Contact Email: Not reported
 Product Name: LILLY MILLER MOSS OUT!
 Product Code: Not reported
 EPA Product Registration Number: 802-591
 Product Type: 3
 Product Classification: 59
 Product Use: Not reported
 Market Type: 1
 Product Unit of Measure: Not reported
 Region: 10

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MATSON, LLC (Continued)**1010569904**

Zero Production:	No
RUP:	2
Registration Number:	008119-WA-001
Name:	MATSON, LLC
Address:	45620 S.E. N BEND WAY
Address 2:	Not reported
Country Code:	Not reported
Country:	Not reported
Contact Name:	DAVID L. GRASSMAN PRESIDENT P: 206-762-2066
Contact Title:	Not reported
Contact Telephone:	Not reported
Contact Email:	Not reported
Product Name:	MOSS B WARE
Product Code:	Not reported
EPA Product Registration Number:	10699-1
Product Type:	3
Product Classification:	59
Product Use:	Not reported
Market Type:	1
Product Unit of Measure:	Not reported
Region:	10
Zero Production:	No
RUP:	2

BY335 NOR WEST MOBILE HOME PARK WATER SYSTEM
Target 45810 SE NORTH BEND WAY
Property NORTH BEND, WA 98045

FINDS 1008034342
ECHO N/A

Site 1 of 3 in cluster BY

Actual: FINDS:
627 ft. Registry ID: 110013064708
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110013064708
19

Environmental Interest/Information System:
 COMMUNITY WATER SYSTEM

[Click this hyperlink](#) while viewing on your computer to access
 additional FINDS: detail in the EDR Site Report.

ECHO:
 Envid: 1008034342
 Registry ID: 110013064708
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110013064708>

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BY336 **RESIDENT**
Target **45810 SE NORTH BEND WAY**
Property **NORTH BEND, WA**

WA SPILLS **S105789678**
 N/A

Site 2 of 3 in cluster BY

Actual: **SPILLS:**
627 ft. Name: RESIDENT
Focus Map: Address: 45810 SE NORTH BEND WAY
19 City,State,Zip: NORTH BEND, WA
 Facility ID: 531461
 Medium: Not reported
 Material Desc: CHEMICAL
 Material Qty: Not reported
 Material Units: Not reported
 Date Received: 01/22/2003
 Contact Name: UNK
 Incident Date: Not reported
 Incident Category Type: Not reported
 Incident Category: Not reported
 Latitude: Not reported
 Longitude: Not reported
 Source Type: Not reported
 Source: Not reported
 Vessel Facility Name2: Not reported
 Recovered Quantity: Not reported
 Resp Party Contact: Not reported
 Cause: Not reported
 Cause Type: Not reported
 Resp Party Name: Not reported

BY337 **FELON**
Target **45810 SE NORTHBEND WAY EAST OF NORTHBEN**
Property **NORTH BEND, WA**

WA SPILLS **S108894710**
 N/A

Site 3 of 3 in cluster BY

Actual: **SPILLS:**
627 ft. Name: FELON
Focus Map: Address: 45810 SE NORTHBEND WAY EAST OF NORTHBEN
19 City,State,Zip: NORTH BEND, WA
 Facility ID: 500748
 Medium: Not reported
 Material Desc: CHEMICAL
 Material Qty: Not reported
 Material Units: Not reported
 Date Received: 10/28/1998
 Contact Name: Not reported
 Incident Date: Not reported
 Incident Category Type: Not reported
 Incident Category: Not reported
 Latitude: Not reported
 Longitude: Not reported
 Source Type: Not reported
 Source: Not reported
 Vessel Facility Name2: Not reported
 Recovered Quantity: Not reported
 Resp Party Contact: Not reported
 Cause: Not reported
 Cause Type: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FELON (Continued)

S108894710

Resp Party Name: Not reported

BZ338 CEDAR VILLAGE 4 (D90865)
Target 43910 SE 143RD STREET
Property NORTH BEND, WA

WA UIC S118393496
N/A

Site 1 of 2 in cluster BZ

Actual: 504 ft.
Focus Map: 18

UIC:
Name: CEDAR VILLAGE 4 (D90865)
Address: 43910 SE 143RD STREET
City,State,Zip: NORTH BEND, WA
Site Number: 19764
Owner Name: King County WLRD DSS Cedar Village 4 (D90865)
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.470556
Longitude: 121.753333
Well Name: 14134
Registration Type: Municipal Stormwater
Construction Date: 12/24/1984
Construction Type: Infiltration trench with perforated pipe
Depth: 2

339 KING CNTY SHORT PLAT 385058 (D9132)
Target 43610 SE 143RD PLACE
Property KING (County), WA

WA UIC S118393499
N/A

Actual: 499 ft.
Focus Map: 18

UIC:
Name: KING CNTY SHORT PLAT 385058 (D9132)
Address: 43610 SE 143RD PLACE
City,State,Zip: WA
Site Number: 19773
Owner Name: King County WLRD DSS King Cnty Short Plat 385058 (D9132)
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.470833
Longitude: 121.757222
Well Name: 14143
Registration Type: Municipal Stormwater
Construction Date: 07/28/1988
Construction Type: Other
Depth: 2

CA340 TANNER ELECTRIC COOPERATIVE
Target 45710 SE NORTH BEND WAY PO BOX 1426
Property NORTH BEND, WA 98045

WA UST U001777661
WA ALLSITES N/A

Site 1 of 6 in cluster CA

Actual: 617 ft.
Focus Map: 19

UST:
Name: TANNER ELECTRIC COOPERATIVE
Address: 45710 SE NORTH BEND WAY PO BOX 1426
City: NORTH BEND
Zip: 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TANNER ELECTRIC COOPERATIVE (Continued)

U001777661

Facility ID: 97225144
Site Id: 110
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.46991
Decimal Longitude: -121.72789

Tank Name: 1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Double Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Steel
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: TANNER ELECTRIC COOPERATIVE
Facility Id: 97225144

Interaction: 75246
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAD010206597
Date Interaction: 1992-08-28 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.469904323999998
Longitude: -121.72787523700001

Interaction: 75247
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TANNER ELECTRIC COOPERATIVE (Continued)

U001777661

Program ID: 110
Date Interaction: 2000-02-29 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.469904323999998
Longitude: -121.72787523700001

Interaction: 75248
Interaction 1: I
Interaction 2: HWOTHER
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAD010206597
Date Interaction: 2003-12-31 00:00:00
Date Interaction 3: Haz Waste Management Acti
Latitude: 47.469904323999998
Longitude: -121.72787523700001

CA341 TANNER ELECTRIC COOP
Target 45710 SE N BEND HWY
Property NORTH BEND, WA 98045

FTTS 1010010484
N/A

Site 2 of 6 in cluster CA

Actual: FTTS:
617 ft. Case Number: Not reported
Focus Map: Docket Number: 1088-08-28-2615
19 Complaint Issue Date: 09/15/88
Abatement Amount: 0.0000
Proposed Penalty: 14500.0000
Final Assessment: 3273.0000
Final Order Date: 12/15/88
Close Date: / /
Violations(s): PCB, Failure to Maintain Records
PCB, Use
PCB, Label or Marking

CA342 TANNER ELECTRIC COOP
Target 45710 SE NORTH BEND WAY
Property NORTH BEND, WA 98045

HIST FTTS 1008190581
N/A

Site 3 of 6 in cluster CA

Actual: HIST FTTS INSP:
617 ft. Inspection Number: 19880322WA003 2
Focus Map: Region: 10
19 Inspection Date: Not reported
Inspector: MAULE
Violation occurred: Yes
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CA343 **TANNER ELECTRIC COOP**
Target **45710 SE N BEND HWY**
Property **NORTH BEND, WA 98045**

HIST FTTS **1008190580**
N/A

Site 4 of 6 in cluster CA

Actual: HIST FTTS:
617 ft. Case Number: Not reported
Focus Map: Docket Number: 1088-08-28-2615
19 Complaint Issue Date: 09/15/1988
Abatement Amount: 0.0000
Proposed Penalty: 14500.0000
Final Assessment: 3273.0000
Final Order Date: 12/15/1988
Close Date: / /
Violations(s): PCB, Failure to Maintain Records
PCB, Use
PCB, Label or Marking

CA344 **TANNER ELECTRIC COOPERATIVE**
Target **45710 SE NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

RCRA NonGen / NLR **1000838077**
FINDS **WAD010206597**
ECHO

Site 5 of 6 in cluster CA

Actual: RCRA NonGen / NLR:
617 ft. Date form received by agency: 2005-04-01 00:00:00.0
Focus Map: Facility name: TANNER ELECTRIC COOPERATIVE
19 Facility address: 45710 SE NORTH BEND WAY
NORTH BEND, WA 98045
EPA ID: WAD010206597
Mailing address: PO BOX 1426
NORTH BEND, WA 98045
Contact: DAVID HEITMAN
Contact address: PO BOX 1426
NORTH BEND, WA 98045
Contact country: US
Contact telephone: 425-888-0623
Contact email: DAVE@TANNERELECTRIC.COOP
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: TANNER ELECTRIC COOP
Owner/operator address: PO BOX 1426
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 425-888-0623
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: TANNER ELECTRIC COOP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TANNER ELECTRIC COOPERATIVE (Continued)

1000838077

Owner/operator address: PO BOX 1426
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 425-888-0623
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: TANNER ELECTRIC COOP
Owner/operator address: PO BOX 1426
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 425-888-0623
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 1996-05-02 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2005-03-31 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Not a generator, verified

Date form received by agency: 2005-03-31 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Not a generator, verified

Date form received by agency: 2005-03-31 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Not a generator, verified

Date form received by agency: 2004-05-14 00:00:00.0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TANNER ELECTRIC COOPERATIVE (Continued)

1000838077

Site name: TANNER ELECTRIC COOPERATIVE
Classification: Not a generator, verified

Date form received by agency: 2003-12-31 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Not a generator, verified

Date form received by agency: 2003-01-17 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Not a generator, verified

Date form received by agency: 2002-01-11 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Not a generator, verified

Date form received by agency: 2000-12-06 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Not a generator, verified

Date form received by agency: 1999-12-16 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Not a generator, verified

Date form received by agency: 1999-01-07 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Not a generator, verified

Date form received by agency: 1998-02-25 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Not a generator, verified

Date form received by agency: 1997-03-12 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 1996-03-01 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Large Quantity Generator

Date form received by agency: 1996-02-29 00:00:00.0
Site name: TANNER ELECTRIC COOPERATIVE
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110000827767
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000827767

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.
NCDB (National Compliance Data Base) supports implementation of the

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TANNER ELECTRIC COOPERATIVE (Continued)

1000838077

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000838077
Registry ID: 110000827767
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110000827767>

CA345 **TANNER ELECTRIC COOP**
Target **45710 SE NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

FTTS **1010010485**
N/A

Site 6 of 6 in cluster CA

Actual: **617 ft.** **FTTS INSP:**
Focus Map: **19** **Inspection Number:** 19880322WA003 2
Region: 10
Inspection Date: 03/22/88
Inspector: MAULE
Violation occurred: Yes
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

BZ346 **CEDAR VILLAGE 4 (D90870)**
Target **43911 SE 143RD STREET**
Property **NORTH BEND, WA**

WA UIC **S118393495**
N/A

Site 2 of 2 in cluster BZ

Actual: **504 ft.** **UIC:**
Focus Map: **18** **Name:** CEDAR VILLAGE 4 (D90870)
Address: 43911 SE 143RD STREET
City,State,Zip: NORTH BEND, WA
Site Number: 19765
Owner Name: King County WLRD DSS Cedar Village 4 (D90870)
Well Status: Active
EPA Well Type: 5H1 - Stormwater
Latitude: 47.470278
Longitude: 121.751944
Well Name: 14135
Registration Type: Municipal Stormwater
Construction Date: 12/24/1984

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CEDAR VILLAGE 4 (D90870) (Continued)

S118393495

Construction Type: Infiltration trench with perforated pipe
Depth: 2

CB347 PETROCARD INC NORTH BEND
Target 14220 468TH PL SE
Property NORTH BEND, WA 98045

WA ALLSITES S113230070
N/A

Site 1 of 2 in cluster CB

Actual: ALLSITES:
713 ft. Name: PETROCARD INC NORTH BEND
Focus Map: Facility Id: 16843
20

Interaction: 103171
Interaction 1: I
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: PETROCARD INC NORTH BEND
Program ID: CRK000079330
Date Interaction: 2012-03-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.469610783999997
Longitude: -121.716075428

CB348 PETROCARD INC NORTH BEND
Target 14220 468TH PL SE
Property NORTH BEND, WA 98045

FINDS 1016704306
N/A

Site 2 of 2 in cluster CB

Actual: FINDS:
713 ft. Registry ID: 110056453314
Focus Map: Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110056453314
20

Environmental Interest/Information System:

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[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

349
Target
Property

EASTBOUND INTERSTATE 90 MILEPOST 33
EB I90 MP 33
NORTH BEND, WA 98045

WA ALLSITES **S117450606**
N/A

Actual:
612 ft.

Focus Map:
19

ALLSITES:

Name: EASTBOUND INTERSTATE 90 MILEPOST 33
Facility Id: 8343
Interaction: 110608
Interaction 1: A
Interaction 2: ENFORFNL
Ecology Program: SPILLS
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 2014-11-26 00:00:00
Date Interaction 3: Enforcement Final
Latitude: 47.470104323999998
Longitude: -121.730732237

CC350
Target
Property

CASCADE DIESEL TRUCK & RV REPAIR
45830 SE NORTH BEND WAY
NORTH BEND, WA 98045

FINDS **1016705148**
N/A

Site 1 of 2 in cluster CC

Actual:
631 ft.

Focus Map:
19

FINDS:

Registry ID: 110056464339
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110056464339

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

CC351
Target
Property

CASCADE DIESEL TRUCK & RV REPAIR
45830 SE NORTH BEND WAY
NORTH BEND, WA 98045

WA ALLSITES **S110124013**
N/A

Site 2 of 2 in cluster CC

Actual:
631 ft.

Focus Map:
19

ALLSITES:

Name: CASCADE DIESEL TRUCK & RV REPAIR
Facility Id: 24812
Interaction: 89123
Interaction 1: I
Interaction 2: LSC
Ecology Program: HAZWASTE
Program Data: LSC
Facility Alt.: Cascade Diesel Truck & RV Repair
Program ID: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CASCADE DIESEL TRUCK & RV REPAIR (Continued)

S110124013

Date Interaction: 2009-04-15 00:00:00
Date Interaction 3: Local Source Cntrl 7/09-3
Latitude: 47.470760323999997
Longitude: -121.728112237

352

**Target
Property**

**44572 SE 144TH STREET
NORTH BEND, WA**

**WA ASBESTOS S125601568
N/A**

ASBESTOS:

**Actual:
519 ft.**

**Focus Map:
19**

Name: Not reported
Address: 44572 SE 144TH STREET
City,State,Zip: NORTH BEND, WA
Facility Type: Not reported
Parent ID: Not reported
Form ID: 31704##1079Affor408083
Notice Date: 08/28/2009
Start Date: 09/09/2009
Completion Date: 09/09/2009
Initial: Not reported
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: Not reported
Site Hours End: Not reported
Sunday: Not reported
Monday: Not reported
Tuesday: Not reported
Wednesday: Not reported
Thursday: Not reported
Friday: Not reported
Saturday: Not reported
Contractor ID: Not reported
Phone: Not reported
Job Site CAS: Not reported
Project Form Email: Not reported
Property Owner Name: Not reported
Property Owner Agent: Not reported
Property Owner Company: Affordable Abatement, Inc (ABCN00001079)
Property Owner Address: Not reported
Property Owner City: Not reported
Property Owner State: Not reported
Property Owner Zip4: Not reported
Property Owner Phone: Not reported
Job Site Room: Not reported
Facility Age: Not reported
Facility Size: Not reported
Facility Remodel: Not reported
Facility Demo: Not reported
Facility Repair: Not reported
Facility Maint: Not reported
Removed: Not reported
Encapsulated: Not reported
Quantity Sq Ft: Not reported
Fireproofing: Not reported
Popcorn Ceiling: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S125601568

CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601224450
Notice type:	Initial
Project Type:	Sheet Vinyl
Supervisor:	Ron Riedel ()
Supervisor Phone:	Not reported
Certificate Status:	EXPIRED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CD353 **I90 NORTH BEND CORPORATE PARK**
Target **SE NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

FINDS **1015965053**
ECHO **N/A**

Site 1 of 2 in cluster CD

Actual: **689 ft.** **FINDS:**
Focus Map: **20** **Registry ID:** 110054615617
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110054615617

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1015965053
Registry ID: 110054615617
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110054615617>

CD354 **I90 NORTH BEND CORPORATE PARK**
Target **SE NORTH BEND WAY**
Property **NORTH BEND, WA 98045**

WA ALLSITES **S110039959**
N/A

Site 2 of 2 in cluster CD

Actual: **689 ft.** **ALLSITES:**
Focus Map: **20** **Name:** I90 NORTH BEND CORPORATE PARK
Facility Id: 12617

Interaction: 84969
Interaction 1: I
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: I90 NORTH BEND CORPORATE PARK
Program ID: WAR009888
Date Interaction: 2007-11-13 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.469694322999999
Longitude: -121.718985238

Map ID	Direction	Distance	Elevation	Site	Database(s)	EDR ID Number	EPA ID Number
				MAP FINDINGS			
355				KING CNTY SHORT PLAT 1087021 (D921	WA UIC	S118393492	
Target				43930 SE 144TH LANE			N/A
Property				KING (County), WA			
				UIC:			
				Name:	KING CNTY SHORT PLAT 1087021 (D921		
Actual:				Address:	43930 SE 144TH LANE		
498 ft.				City,State,Zip:	WA		
Focus Map:				Site Number:	19780		
18				Owner Name:	King County WLRD DSS King Cnty Short Plat 1087021 (D921		
				Well Status:	Active		
				EPA Well Type:	5H1 - Stormwater		
				Latitude:	47.469444		
				Longitude:	121.752222		
				Well Name:	14150		
				Registration Type:	Municipal Stormwater		
				Construction Date:	04/19/1989		
				Construction Type:	Other		
				Depth:	2		
356				SMITTYS TOWING AUTO REPAIR	WA ALLSITES	S109824408	
				42998 SE NORTH BEND WAY			N/A
< 1/8				NORTH BEND, WA 98045			
0.001 mi.							
4 ft.							
Actual:				ALLSITES:			
478 ft.				Name:	SMITTYS TOWING AUTO REPAIR		
Focus Map:				Facility Id:	7313		
18							
				Interaction:	78251		
				Interaction 1:	I		
				Interaction 2:	LSC		
				Ecology Program:	HAZWASTE		
				Program Data:	LSC		
				Facility Alt.:	Smittys Towing Auto Repair		
				Program ID:	Not reported		
				Date Interaction:	2009-04-01 00:00:00		
				Date Interaction 3:	Local Source Cntrl 7/09-3		
				Latitude:	47.485246639000003		
				Longitude:	-121.766312736		
357				SYSTEM TRANSPORT DIESEL SPILL 468TH AVE SE	WA ALLSITES	S111768919	
East				NWC 468TH AVE SE & SE 144TH	WA CSCSL NFA	N/A	
< 1/8				NORTH BEND, WA 98045			
0.003 mi.							
14 ft.							
Actual:				ALLSITES:			
708 ft.				Name:	SYSTEM TRANSPORT DIESEL SPILL 468TH AVE SE		
Focus Map:				Facility Id:	13893		
20							
				Interaction:	101201		
				Interaction 1:	I		
				Interaction 2:	INDPNDNT		
				Ecology Program:	TOXICS		
				Program Data:	ISIS		

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SYSTEM TRANSPORT DIESEL SPILL 468TH AVE SE (Continued)

S111768919

Facility Alt.: System Transport Diesel Spill 468th Ave SE
Program ID: Not reported
Date Interaction: 2012-02-10 00:00:00
Date Interaction 3: Independent Cleanup
Latitude: 47.469531920000001
Longitude: -121.71627581

CSCSL NFA:

Name: SYSTEM TRANSPORT DIESEL SPILL 468TH AVE SE
Address: NWC 468TH AVE SE & SE 144TH
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 13893
CS Id: 11833
NFA Date: 03/30/2012
Alternate Site Names: Not reported
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Diesel
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.469537136
Longitude: -121.71627694

358
North
< 1/8
0.005 mi.
28 ft.

KING CNTY DOT 468TH BRIDGE
468TH AVE SE CROSSING S FORK
NORTH BEND, WA 98045

WA ALLSITES **1007371924**
RCRA NonGen / NLR **WAH000023250**
WA MANIFEST

Actual:
749 ft.
Focus Map:
20

ALLSITES:
Name: KING CNTY DOT 468TH BRIDGE
Facility Id: 605643
Interaction: 6996
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAH000023250
Date Interaction: 2004-04-22 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.485894322
Longitude: -121.716675235

RCRA NonGen / NLR:

Date form received by agency: 2006-04-18 00:00:00.0
Facility name: KING CNTY DOT 468TH BRIDGE
Facility address: 468TH AVE SE CROSSING S FORK
SNOQUALMIE RVR SE OF N BEND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT 468TH BRIDGE (Continued)

1007371924

NORTH BEND, WA 98045
EPA ID: WAH000023250
Mailing address: 201 S JACKSON ST
MS KSC TR 0231
SEATTLE, WA 98104
Contact: ERICK THOMPSON
Contact address: 201 S JACKSON ST MS KSC TR 0231
SEATTLE, WA 98104
Contact country: US
Contact telephone: 206-296-8747
Contact email: ERICK.THOMPSON@METROKC.GOV
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: KING CNTY DOT ROAD SERVICES DIV
Owner/operator address: 201 S JACKSON ST MS KSC TR 0231
SEATTLE, WA 98104
Owner/operator country: US
Owner/operator telephone: 206-205-5222
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: BELLAH, SAM
Owner/operator address: 201 S JACKSON ST MS KSC TR 0231
SEATTLE, WA 98104
Owner/operator country: US
Owner/operator telephone: 206-423-1058
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: KING CNTY DOT ROAD SERVICES DIV
Owner/operator address: 201 S JACKSON ST MS KSC TR 0231
SEATTLE, WA 98104
Owner/operator country: US
Owner/operator telephone: 206-205-5222
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2005-01-01 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT 468TH BRIDGE (Continued)

1007371924

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2006-04-17 00:00:00.0
Site name: KING CNTY DOT 468TH BRIDGE
Classification: Not a generator, verified

Date form received by agency: 2006-04-17 00:00:00.0
Site name: KING CNTY DOT 468TH BRIDGE
Classification: Not a generator, verified

Date form received by agency: 2006-04-17 00:00:00.0
Site name: KING CNTY DOT 468TH BRIDGE
Classification: Not a generator, verified

Date form received by agency: 2005-03-09 00:00:00.0
Site name: KING CNTY DOT 468TH BRIDGE
Classification: Small Quantity Generator

Date form received by agency: 2005-01-01 00:00:00.0
Site name: KING CNTY DOT 468TH BRIDGE
Classification: Not a generator, verified

Date form received by agency: 2004-04-15 00:00:00.0
Site name: KING CNTY DOT 468TH BRIDGE
Classification: Large Quantity Generator

Hazardous Waste Summary:

. Waste code: D008
. Waste name: LEAD

. Waste code: WP02
. Waste name: Washington State Dangerous Persistent Waste containing Halogenated Organic Compounds (HOC) at a total concentration level of 0.01% to 1.0%.

Violation Status: No violations found

WA MANIFEST:

Name: KING CNTY DOT 468TH BRIDGE
Address: 468TH AVE SE CROSSING S FORK
City, State, Zip: NORTH BEND, WA 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT 468TH BRIDGE (Continued)

1007371924

Facility Address 2:	Snoqualmie River SE of North Bend Cty
Facility ID:	605643
EPA ID:	WAH000023250
NAICS:	926120
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	Not reported
Permit by Rule:	No
Mailing Address 2:	Not reported
Treatment by Generator:	No
Mixed Radioactive Waste:	No
Importer of Hazardous Waste:	No
Immediate Recycler:	No
Treatment/Storage/Disposal/Recycling Facility:	No
Generator of Dangerous Fuel Waste:	No
Generator Marketing to Burner:	No
Other Marketers (i.e., blender, distributor, etc.):	No
Utility Boiler Burner:	No
Industry Boiler Burner:	No
Industrial Furnace:	No
Smelter Defferal:	No
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	600461992
Business Type:	Transportation
Mail Name:	King Cnty DOT Road Services Div
Mailing Address:	201 S Jackson St MS KSC TR 0231
Mailing City,State,Zip:	Seattle, WA 98104-3856
Legal Organization Name:	King Cnty DOT Road Services Div
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	201 S Jackson St MS KSC TR 0231
Legal Address 2:	Not reported
Legal City,State,Zip:	Seattle, WA 98104-3856
Legal Phone Number:	(206)205-5222
Legal Effective Date:	Not reported
Land Organization Name:	King Cnty DOT Road Services Div
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	201 S Jackson St MS KSC TR 0231
Land City,State,Zip:	Seattle, WA 98104-3856
Land Phone Number:	(206)205-5222
Operator Organization Name:	Not reported
Operator Organization Type:	County
Operator:	Sam Bellah
Operator Address:	201 S Jackson St MS KSC TR 0231
Operator Address 2:	Not reported
Operator City,State,Zip:	Seattle, WA 98104-3856
Operator Phone Number:	(206)423-1058
Operator Effective Date:	Not reported
Site Contact:	Sam Bellah
Site Contact Address:	201 S Jackson St MS KSC TR 0231
Contact City,State,Zip:	Seattle, WA 98104-3856
Site Contact Phone Number:	(206)423-1058
Site Contact Email:	sam.bellah@metrokc.gov

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KING CNTY DOT 468TH BRIDGE (Continued)

1007371924

Gen Status Code:	XQG
Monthly Generation:	No
Batch Generation:	No
One Time Generation:	No
Transport Own Waste:	No
Tranports Other Waste:	No
Recycler Onsite:	No
Transfer Facility:	No
Other Exemption:	Not reported
UW Battery Gen:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Fuel Marketer Directs Shipments:	No
Used Oil Fuel Marketer Meets Specs:	No
Site Contact Address 2:	Not reported

359
South
< 1/8
0.024 mi.
127 ft.

NEW SKY LLC
12700 412TH AVE SE
NORTH BEND, WA 98045

WA ALLSITES **S116753386**
WA NPDES **N/A**

Actual:
451 ft.
Focus Map:
17

ALLSITES:	
Name:	NEW SKY LLC
Facility Id:	10368
Interaction:	109043
Interaction 1:	A
Interaction 2:	CONSTSWGP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	New Sky LLC
Program ID:	WAR302066
Date Interaction:	2014-06-02 00:00:00
Date Interaction 3:	Construction SW GP
Latitude:	47.490692906
Longitude:	-121.791308671

NPDES:	
Name:	NEW SKY LLC
Address:	12700 412TH AVE SE
City,State,Zip:	NORTH BEND, WA 98045
Facility Status:	Not reported
Facility Type:	Construction SW GP
Admin Region:	Headquarters
Date Issued:	11/18/2015
Latitude:	Not reported
Longitude:	Not reported
Permit ID:	WAR302066
Permit Version:	Not reported
Permit Status:	Active
Permit SubStatus:	Not reported
Ecology Contact:	Not reported
WRIA:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NEW SKY LLC (Continued)

S116753386

Permit Expiration Date: 12/31/2020
Effective Date: 01/01/2016
Days to Expiration: -443

**CE360
ESE
< 1/8
0.030 mi.
160 ft.**

**PETROCARD INC
14420 468TH AVE SE
NORTH BEND, WA 98045**

**WA UST U003025165
N/A**

Site 1 of 3 in cluster CE

**Actual:
704 ft.**

UST:

**Focus Map:
20**

Name: PETROCARD INC
Address: 14420 468TH AVE SE
City: NORTH BEND
Zip: 98045
Facility ID: 60598662
Site Id: 101515
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.4687999762599
Decimal Longitude: -121.715607334994

Tank Name: 1DIESEL
Tag Number: A3922
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 11/11/1991
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 10/31/2020
Tank Upgrade Date: 04/01/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Steel Clad with Corrosion Resistant Composite
Tank Construction: Double Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Interstitial Monitoring
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

Name: PETROCARD INC
Address: 14420 468TH AVE SE
City: NORTH BEND
Zip: 98045

Tank Name: 2PREMIUM
Tag Number: A3922
Tank Status: Operational
Tank Status Date: 08/06/1996

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PETROCARD INC (Continued)

U003025165

Tank Install Date: 11/11/1991
 Tank Closure Date: Not reported
 Capacity Range: 5,000 to 9,999 Gallons
 Tank Permit Expiration Date: 10/31/2020
 Tank Upgrade Date: 04/01/1998
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Overfill Alarm
 Tank Material: Steel Clad with Corrosion Resistant Composite
 Tank Construction: Double Wall Tank
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: Corrosion Resistant
 Tank Manifold: Not reported
 Tank Release Detection: Interstitial Monitoring
 Tank SFC Type: Sump
 Pipe Material: Fiberglass
 Pipe Construction: Double Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Sump

Name: PETROCARD INC
 Address: 14420 468TH AVE SE
 City: NORTH BEND
 Zip: 98045

Tank Name: 3REG
 Tag Number: A3922
 Tank Status: Operational
 Tank Status Date: 08/06/1996
 Tank Install Date: 11/11/1991
 Tank Closure Date: Not reported
 Capacity Range: 10,000 to 19,999 Gallons
 Tank Permit Expiration Date: 10/31/2020
 Tank Upgrade Date: 04/01/1998
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Overfill Alarm
 Tank Material: Steel Clad with Corrosion Resistant Composite
 Tank Construction: Double Wall Tank
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: Corrosion Resistant
 Tank Manifold: Not reported
 Tank Release Detection: Interstitial Monitoring
 Tank SFC Type: Sump
 Pipe Material: Fiberglass
 Pipe Construction: Double Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Sump

Name: PETROCARD INC
 Address: 14420 468TH AVE SE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PETROCARD INC (Continued)

U003025165

City: NORTH BEND
Zip: 98045

Tank Name: 4REGUN
Tag Number: A3922
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 11/11/1991
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 10/31/2020
Tank Upgrade Date: 04/01/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Steel Clad with Corrosion Resistant Composite
Tank Construction: Double Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Interstitial Monitoring
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Interstitial Monitoring (or Sump Sensor)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

CE361 **EDGEWICK VLG TEXACO GAS & DELI**
ESE **14420 468TH AVE SE**
< 1/8 **NORTH BEND, WA 98045**
0.030 mi.
160 ft. **Site 2 of 3 in cluster CE**

EDR Hist Auto **1021225929**
N/A

Actual: EDR Hist Auto
704 ft.

Focus Map:
20

Year:	Name:	Type:
1997	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations
1998	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations
1999	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations
2000	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations
2001	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations
2002	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations
2003	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations
2004	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations
2005	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations, NEC
2006	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations, NEC
2007	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations, NEC
2008	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations, NEC
2010	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations, NEC
2011	EDGEWICK VLG TEXACO GAS & DELI	Gasoline Service Stations, NEC
2014	PETROCARD INC	Gasoline Service Stations

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CE362
ESE
< 1/8
0.030 mi.
160 ft.
PETROCARD INC
14420 468TH AVE SE
NORTH BEND, WA 98045
Site 3 of 3 in cluster CE

WA ALLSITES
WA Financial Assurance
S108523328
N/A

Actual:
704 ft.
Focus Map:
20

ALLSITES:

Name: EDGEWICK VILLAGE GAS & DELI
Facility Id: 60598662

Interaction: 54089
Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: PETROCARD INC
Program ID: 101515
Date Interaction: 1991-11-11 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.468793105000003
Longitude: -121.71561205899999

Interaction: 90754
Interaction 1: A
Interaction 2: ENFORFNL
Ecology Program: TOXICS
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 2008-03-20 00:00:00
Date Interaction 3: Enforcement Final
Latitude: 47.468793105000003
Longitude: -121.71561205899999

Interaction: 88577
Interaction 1: I
Interaction 2: LSC
Ecology Program: HAZWASTE
Program Data: LSC
Facility Alt.: EDGEWICK GAS & DELI
Program ID: Not reported
Date Interaction: 2009-05-28 00:00:00
Date Interaction 3: Local Source Cntrl 7/09-3
Latitude: 47.468793105000003
Longitude: -121.71561205899999

WA Financial Assurance 1:

Name: PETROCARD INC
Address: 14420 468TH AVE SE
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 101515
Financial Resp Type: GREAT AMERICAN E&S INSURANCE CO
Inception Date: 11/28/2018
Expiration Date: 12/31/2019
Address 2: Not reported
Policy Number: BTA 9988946-07

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PETROCARD INC (Continued)

S108523328

Effective Date:	11/28/2018
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.468799976
Longitude:	-121.71560733
Name:	PETROCARD INC
Address:	14420 468TH AVE SE
City,State,Zip:	NORTH BEND, WA 98045
DOE Site ID:	101515
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	12/31/2015
Expiration Date:	12/31/2016
Address 2:	Not reported
Policy Number:	BTA-9988946-04
Effective Date:	12/31/2015
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.468799976
Longitude:	-121.71560733
Name:	PETROCARD INC
Address:	14420 468TH AVE SE
City,State,Zip:	NORTH BEND, WA 98045
DOE Site ID:	101515
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	12/31/2016
Expiration Date:	12/31/2017
Address 2:	Not reported
Policy Number:	BTA 9988946-05
Effective Date:	12/31/2016
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.468799976
Longitude:	-121.71560733
Name:	PETROCARD INC
Address:	14420 468TH AVE SE
City,State,Zip:	NORTH BEND, WA 98045
DOE Site ID:	101515
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	12/31/2017
Expiration Date:	12/31/2018
Address 2:	Not reported
Policy Number:	BTA 9988946-06
Effective Date:	12/31/2017
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.468799976

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PETROCARD INC (Continued)

S108523328

Longitude: -121.71560733

363
South
< 1/8
0.032 mi.
171 ft.

GRAY CONSTRUCTION & MOBIL
14513 449TH AVE SE
NORTH BEND, WA 98045

EDR Hist Auto **1020423031**
N/A

Actual: EDR Hist Auto
537 ft.

Focus Map:
19

Year:	Name:	Type:
2001	GRAY CONSTRUCTION & MOBIL	Gasoline Service Stations
2002	GRAY CONSTRUCTION & MOBIL	Gasoline Service Stations
2003	GRAY CONSTRUCTION & MOBIL	Gasoline Service Stations
2004	GRAY CONSTRUCTION & MOBIL	Gasoline Service Stations
2005	GRAY CONSTRUCTION & MOBIL	Gasoline Service Stations

CF364
South
< 1/8
0.060 mi.
319 ft.

CASCADE AUTOVON COMPANY
12727 412TH AVE SE
NORTH BEND, WA 98045

Site 1 of 2 in cluster CF

WA LUST **U003029052**
WA UST **N/A**
WA ICR
WA ALLSITES
WA CSCSL NFA

Actual:
455 ft.

Focus Map:
17

LUST:

Name:	CASCADE AUTOVON CO
Address:	12727 412TH AVE SE
City,State,Zip:	NORTH BEND, WA 98045
Facility ID:	36296841
Lust Status Type:	LUST - NFA
Cleanup Site ID:	8879
Cleanup Unit Type:	Not reported
Process Type:	Not reported
Cleanup Unit Name:	CASCADE AUTOVON,CASCADE AUTOVON COMPANY
Response Section:	Northwest
Release Date:	06/20/1991
Lust Date:	08/09/2018
Region:	Northwest
Lust ID:	1040
UST ID:	97430
Contaminant Name:	Petroleum-Diesel
Ground Water:	Below Cleanup Levels
Surface Water:	Not reported
Soil:	Remediated-Below
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Lat/Long:	47.4852674 / -121.79172

UST:

Name:	CASCADE AUTOVON COMPANY
Address:	12727 412TH AVE SE
City:	NORTH BEND
Zip:	98045
Facility ID:	36296841
Site Id:	97430
UBI:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CASCADE AUTOVON COMPANY (Continued)

U003029052

Phone Number: Not reported
 Decimal Latitude: 47.4852674478021
 Decimal Longitude: -121.79172767708

 Tank Name: 1
 Tag Number: A3907
 Tank Status: Removed
 Tank Status Date: 02/26/2007
 Tank Install Date: 02/18/1992
 Tank Closure Date: 01/04/2007
 Capacity Range: 5,000 to 9,999 Gallons
 Tank Permit Expiration Date: Not reported
 Tank Upgrade Date: 08/03/1998
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Ball Float Valve (vent line)
 Tank Material: Steel
 Tank Construction: Double Wall Tank
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: Sacrificial Anode
 Tank Manifold: Not reported
 Tank Release Detection: Interstitial Monitoring
 Tank SFC Type: Not reported
 Pipe Material: Other
 Pipe Construction: Secondary Containment
 Pipe Primary Release Detection: Interstitial Monitoring (or Sump Sensor)
 Pipe Second Release Detection: Not reported
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Not reported
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Not reported

Name: CASCADE AUTOVON COMPANY
 Address: 12727 412TH AVE SE
 City: NORTH BEND
 Zip: 98045

Tank Name: 1 (NORTH)
 Tag Number: A3907
 Tank Status: Removed
 Tank Status Date: 08/06/1996
 Tank Install Date: 12/31/1964
 Tank Closure Date: Not reported
 Capacity Range: Not reported
 Tank Permit Expiration Date: Not reported
 Tank Upgrade Date: Not reported
 Tank Spill Prevention: Not reported
 Tank Overfill Prevention: Not reported
 Tank Material: Steel
 Tank Construction: Not reported
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: Not reported
 Tank Manifold: Not reported
 Tank Release Detection: Not reported
 Tank SFC Type: Not reported
 Pipe Material: Not reported
 Pipe Construction: Not reported
 Pipe Primary Release Detection: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CASCADE AUTOVON COMPANY (Continued)

U003029052

Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Not reported

Name: CASCADE AUTOVON COMPANY
Address: 12727 412TH AVE SE
City: NORTH BEND
Zip: 98045

Tank Name: 2 (SOUTH)
Tag Number: A3907
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Not reported

ICR:

Date Ecology Received Report: 12/02/91
Contaminants Found at Site: Petroleum products
Media Contaminated: Groundwater, Soil
Waste Management: Tank
Region: North Western
Type of Report Ecology Received: Interim cleanup report
Site Register Issue: 92-12
County Code: 17
Contact: Not reported
Report Title: Not reported

Date Ecology Received Report: 04/20/92
Contaminants Found at Site: Petroleum products
Media Contaminated: Groundwater
Waste Management: Tank
Region: North Western
Type of Report Ecology Received: Interim cleanup report
Site Register Issue: 92-23

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CASCADE AUTOVON COMPANY (Continued)

U003029052

County Code:	17
Contact:	Not reported
Report Title:	Not reported
Date Ecology Received Report:	07/08/92
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Soil
Waste Management:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	92-29
County Code:	17
Contact:	Not reported
Report Title:	Not reported
Date Ecology Received Report:	10/02/92
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Soil
Waste Management:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	92-50
County Code:	17
Contact:	Not reported
Report Title:	Not reported
Date Ecology Received Report:	01/28/93
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Groundwater, Soil
Waste Management:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	92-46
County Code:	17
Contact:	Not reported
Report Title:	Not reported
Date Ecology Received Report:	03/28/94
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Groundwater
Waste Management:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	93-23
County Code:	17
Contact:	Not reported
Report Title:	Not reported
Date Ecology Received Report:	05/10/95
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Groundwater
Waste Management:	Tank
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	94-03
County Code:	17
Contact:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CASCADE AUTOVON COMPANY (Continued)

U003029052

Report Title: Not reported

ALLSITES:

Name: CASCADE AUTOVON COMPANY
Facility Id: 36296841

Interaction: 40512
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 97430
Date Interaction: 2000-03-20 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.485262587999998
Longitude: -121.791703325

Interaction: 122982
Interaction 1: I
Interaction 2: VOLCLNST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Cascade Autovon Co
Program ID: NW3098
Date Interaction: 2016-10-27 00:00:00
Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.485262587999998
Longitude: -121.791703325

Interaction: 104699
Interaction 1: A
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: CASCADE AUTOVON
Program ID: 97430
Date Interaction: 1991-06-20 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.485262587999998
Longitude: -121.791703325

CSCSL NFA:

Name: CASCADE AUTOVON CO
Address: 12727 412TH AVE SE
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 36296841
CS Id: 8879
NFA Date: 08/09/2018
Alternate Site Names: CASCADE AUTOVON,CASCADE AUTOVON COMPANY
NFA Reason: NFA-Voluntary Cleanup Program Review
Site Status: NFA
Region: Northwest

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CASCADE AUTOVON COMPANY (Continued)

U003029052

Contaminant Name: Petroleum-Diesel
Ground Water: Below Cleanup Levels
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.485267448
Longitude: -121.79172768

CF365 **CASCADE AUTOVON CO**
South **12727 412TH AVE SE**
< 1/8 **NORTH BEND, WA 98045**
0.060 mi.
319 ft. **Site 2 of 2 in cluster CF**

WA VCP **S124434059**
N/A

Actual: VCP:
455 ft. Name: CASCADE AUTOVON CO
Focus Map: Address: 12727 412TH AVE SE
17 City,State,Zip: NORTH BEND, WA 98045
edr_fstat: WA
edr_fzip: 98045
edr_fcnty: KING
edr_zip: Not reported
Facility ID: 36296841
VCP Status: Not reported
VCP: NFA
Ecology Status: Not reported
NFA Type: Not reported
Date NFA: 2018-08-09
Rank: Not reported
Cleanup Siteid: 8879
Contaminant Name: Petroleum-Diesel
Soil: Remediated-Below

CG366 **WARRIOR'S QUICK STOP 2**
SSE **14500 468TH AVE SE**
< 1/8 **NORTH BEND, WA 98045**
0.067 mi.
353 ft. **Site 1 of 2 in cluster CG**

WA UST **U003132706**
N/A

Actual: UST:
689 ft. Name: WARRIOR'S QUICK STOP 2
Focus Map: Address: 14500 468TH AVE SE
25 City: NORTH BEND
Zip: 98045
Facility ID: 2698893
Site Id: 394525
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.4681366732654
Decimal Longitude: -121.715646284869

Tank Name: 1
Tag Number: A1916
Tank Status: Operational

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WARRIOR'S QUICK STOP 2 (Continued)

U003132706

Tank Status Date: 01/22/2015
 Tank Install Date: 03/20/1996
 Tank Closure Date: Not reported
 Capacity Range: 10,000 to 19,999 Gallons
 Tank Permit Expiration Date: 03/31/2018
 Tank Upgrade Date: 07/29/1998
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Overfill Alarm
 Tank Material: Fiberglass Reinforced Plastic
 Tank Construction: Double Wall Tank
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: Corrosion Resistant
 Tank Manifold: Not reported
 Tank Release Detection: Automatic Tank Gauging
 Tank SFC Type: Not reported
 Pipe Material: Fiberglass
 Pipe Construction: Double Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Annual Line Tightness Test (LTT)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Not reported

Name: WARRIOR'S QUICK STOP 2
 Address: 14500 468TH AVE SE
 City: NORTH BEND
 Zip: 98045

Tank Name: 2
 Tag Number: A1916
 Tank Status: Operational
 Tank Status Date: 01/22/2015
 Tank Install Date: 03/20/1996
 Tank Closure Date: Not reported
 Capacity Range: 10,000 to 19,999 Gallons
 Tank Permit Expiration Date: 03/31/2018
 Tank Upgrade Date: 07/29/1998
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Overfill Alarm
 Tank Material: Fiberglass Reinforced Plastic
 Tank Construction: Double Wall Tank
 Tank Tightness Test: Not reported
 Tank Corrosion Protection: Corrosion Resistant
 Tank Manifold: Not reported
 Tank Release Detection: Automatic Tank Gauging
 Tank SFC Type: Not reported
 Pipe Material: Fiberglass
 Pipe Construction: Double Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Annual Line Tightness Test (LTT)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Not reported

Name: WARRIOR'S QUICK STOP 2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WARRIOR'S QUICK STOP 2 (Continued)

U003132706

Address: 14500 468TH AVE SE
City: NORTH BEND
Zip: 98045

Tank Name: 2
Tag Number: A1916
Tank Status: Operational
Tank Status Date: 01/22/2015
Tank Install Date: 03/20/1996
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 03/31/2018
Tank Upgrade Date: 07/29/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Fiberglass Reinforced Plastic
Tank Construction: Double Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: WARRIOR'S QUICK STOP 2
Address: 14500 468TH AVE SE
City: NORTH BEND
Zip: 98045

Tank Name: 3
Tag Number: A1916
Tank Status: Operational
Tank Status Date: 01/22/2015
Tank Install Date: 03/20/1996
Tank Closure Date: Not reported
Capacity Range: 5,000 to 9,999 Gallons
Tank Permit Expiration Date: 03/31/2018
Tank Upgrade Date: 07/29/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Fiberglass Reinforced Plastic
Tank Construction: Double Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Corrosion Resistant
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WARRIOR'S QUICK STOP 2 (Continued)

U003132706

Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

CG367
SSE
< 1/8
0.067 mi.
353 ft.
KEN ROGERS
14500 468TH AVE SE
NORTH BEND, WA 98045
Site 2 of 2 in cluster CG

WA ALLSITES
WA SPILLS
WA Financial Assurance
S108024607
N/A

Actual:
689 ft.
Focus Map:
25

ALLSITES:

Name: BP KENS GAS & GROCERY
Facility Id: 2698893
Interaction: 11166
Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Warriors Quick Stop 2
Program ID: 394525
Date Interaction: 1996-03-20 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.468132081
Longitude: -121.715637468

Interaction: 78350
Interaction 1: I
Interaction 2: LSC
Ecology Program: HAZWASTE
Program Data: LSC
Facility Alt.: BP KENS GAS & GROCERY
Program ID: Not reported
Date Interaction: 2009-05-28 00:00:00
Date Interaction 3: Local Source Cntrl 7/09-3
Latitude: 47.468132081
Longitude: -121.715637468

Name: KEN ROGERS
Facility Id: 3479546

Interaction: 12786
Interaction 1: A
Interaction 2: ENFORFNL
Ecology Program: TOXICS
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 2008-03-20 00:00:00
Date Interaction 3: Enforcement Final
Latitude: 47.468647322000002
Longitude: -121.716026239

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KEN ROGERS (Continued)

S108024607

SPILLS:

Name: WARRIOR QUICK STOP 2
Address: 14500 468TH AVE SE
City,State,Zip: NORTH BEND, WA
Facility ID: 656999
Medium: ROADWAY-PAVED
Material Desc: PETROLEUM - DIESEL FUEL
Material Qty: Not reported
Material Units: Not reported
Date Received: 05/26/2015
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

Name: UNKNOWN
Address: 14500 468TH AVE SE
City,State,Zip: NORTH BEND, WA
Facility ID: 518933
Medium: Not reported
Material Desc: PETROLEUM - DIESEL FUEL
Material Qty: 2
Material Units: GALLON
Date Received: 06/20/2001
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

WA Financial Assurance 1:

Name: WARRIOR'S QUICK STOP 2
Address: 14500 468TH AVE SE
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 394525
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 03/18/2016

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KEN ROGERS (Continued)

S108024607

Expiration Date: 04/02/2017
Address 2: Not reported
Policy Number: WA642157-1
Effective Date: 03/22/2016
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 1
Retroactive Date: 04/02/2015
Latitude: 47.468136673
Longitude: -121.71564628

Name: WARRIOR'S QUICK STOP 2
Address: 14500 468TH AVE SE
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 394525
Financial Resp Type: COLONY INSURANCE COMPANY
Inception Date: 04/02/2017
Expiration Date: 04/02/2018
Address 2: Not reported
Policy Number: WA642157-2
Effective Date: 04/02/2017
Liability Limit Type: Mktg, 1-100 tanks; 1m per occurrence, 1m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 1
Retroactive Date: 04/02/2015
Latitude: 47.468136673
Longitude: -121.71564628

CH368 **GENIE TEREX STORAGE YARD**
East **46925 SE MIDDLE FORK RD**
< 1/8 **NORTH BEND, WA 98045**
0.089 mi.
470 ft. **Site 1 of 2 in cluster CH**

WA ALLSITES **S118759065**
WA ASBESTOS **N/A**
WA NPDES

Actual: **ALLSITES:**
746 ft. **Name:** **GENIE TEREX STORAGE YARD**
Focus Map: **Facility Id:** **15368**
20

ASBESTOS:
Name: Not reported
Address: 46925 SE MIDDLE FORK RD
City,State,Zip: NORTH BEND, WA
Facility Type: Not reported
Parent ID: Not reported
Form ID: 134402#86104223
Notice Date: 01/22/2019
Start Date: 12/12/2018
Completion Date: 01/21/2019
Initial: Not reported
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: Not reported
Site Hours End: Not reported
Sunday: Not reported
Monday: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	THERMATECH NORTHWEST INC (LAKEWOOD) (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Sheet Vinyl
Supervisor:	Doug Walters (ABAS00034101) ACTIVE, Mike Guiley (2018016498A)
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	46925 SE MIDDLE FORK RD
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	134402#86104223
Notice Date:	01/21/2019
Start Date:	12/12/2018
Completion Date:	06/28/2019
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	THERMATECH NORTHWEST INC (LAKEWOOD) (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Sheet Vinyl
Supervisor:	Doug Walters (ABAS00034101) ACTIVE, Mike Guiley (2018016498A)
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	46925 SE MIDDLE FORK RD
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	134402#86104223
Notice Date:	01/04/2019
Start Date:	12/12/2018
Completion Date:	06/28/2019
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	THERMATECH NORTHWEST INC (LAKEWOOD) (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Sheet Vinyl
Supervisor:	Doug Walters (ABAS00034101) ACTIVE, Mike Guiley (2018016498A)
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	46925 SE MIDDLE FORK RD
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	134402#86104223

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Notice Date:	12/20/2018
Start Date:	12/12/2018
Completion Date:	01/04/2019
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	THERMATECH NORTHWEST INC (LAKEWOOD) (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported

Map ID
Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Sheet Vinyl
Supervisor:	Doug Walters (ABAS00034101) ACTIVE, Mike Guiley (2018016498A)
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	46925 SE MIDDLE FORK RD
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	134402#86104223
Notice Date:	12/17/2018
Start Date:	12/12/2018
Completion Date:	12/21/2018
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	THERMATECH NORTHWEST INC (LAKEWOOD) (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Sheet Vinyl
Supervisor:	Doug Walters (ABAS00034101) ACTIVE, Mike Guiley (2018016498A)
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE

Name:	Not reported
Address:	46925 SE MIDDLE FORK RD
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	134402#86104223
Notice Date:	12/13/2018
Start Date:	12/12/2018
Completion Date:	12/21/2018
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	THERMATECH NORTHWEST INC (LAKEWOOD) (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Sheet Vinyl
Supervisor:	Doug Walters (ABAS00034101) ACTIVE, Mike Guiley (2018016498A)
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	46925 SE MIDDLE FORK RD
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	134402#86104223
Notice Date:	12/13/2018
Start Date:	12/12/2018
Completion Date:	12/21/2018
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	THERMATECH NORTHWEST INC (LAKEWOOD) (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Sheet Vinyl
Supervisor:	Doug Walters (ABAS00034101) ACTIVE, Mike Guiley (2018016498A)
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	46925 SE MIDDLE FORK RD
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	134402#86104223
Notice Date:	12/12/2018
Start Date:	12/12/2018
Completion Date:	12/21/2018

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	THERMATECH NORTHWEST INC (LAKEWOOD) (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Sheet Vinyl
Supervisor:	Doug Walters (ABAS00034101) ACTIVE, Mike Guiley (2018016498A)
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	46925 SE MIDDLE FORK RD
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	134402#86104223
Notice Date:	12/05/2018
Start Date:	12/12/2018
Completion Date:	12/21/2018
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	THERMATECH NORTHWEST INC (LAKEWOOD) (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Sheet Vinyl
Supervisor:	Doug Walters (ABAS00034101) ACTIVE, Mike Guiley (2018016498A)
Supervisor Phone:	Not reported
Certificate Status:	ACTIVE
Name:	Not reported
Address:	46925 SE MIDDLE FORK RD
City,State,Zip:	NORTH BEND, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	134402#86104223
Notice Date:	11/27/2018
Start Date:	12/07/2018
Completion Date:	12/21/2018
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	Not reported
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	THERMATECH NORTHWEST INC (LAKEWOOD) (ABCN00001210)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	2
UBI:	601725020
Notice type:	Initial
Project Type:	Other linear footage, Other Square Footage, Sheet Vinyl
Supervisor:	Doug Walters (ABAS00034101) ACTIVE, Mike Guiley (2018016498A)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE TEREX STORAGE YARD (Continued)

S118759065

Supervisor Phone: Not reported
Certificate Status: ACTIVE

NPDES:

Name: GENIE/TEREX STORAGE YARD
Address: 46925 SE MIDDLE FORK RD
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR304288
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 08/01/2016
Days to Expiration: -443

CH369 DVST INC
East 46925 SE MIDDLE FORK RD
< 1/8 NORTH BEND, WA 98045
0.089 mi.
470 ft. Site 2 of 2 in cluster CH

EDR Hist Auto 1021365317
N/A

Actual: EDR Hist Auto
746 ft.

Focus Map:	Year:	Name:	Type:
20	1996	RON'S AUTO SERVICE	General Automotive Repair Shops
	1997	RON'S AUTO SERVICE	General Automotive Repair Shops
	1998	RON'S AUTO SERVICE	General Automotive Repair Shops
	1999	RON'S AUTO SERVICE	General Automotive Repair Shops
	2000	RON'S AUTO SERVICE	General Automotive Repair Shops
	2001	RON'S AUTO SERVICE	General Automotive Repair Shops
	2002	RON'S AUTO SERVICE	General Automotive Repair Shops
	2012	RON'S AUTO SERVICE	General Automotive Repair Shops
	2013	RON'S AUTO SERVICE	General Automotive Repair Shops
	2014	RON'S AUTO SERVICE	General Automotive Repair Shops

370 NORTH BEND CITYRIBARY CRK STABILIZATION
South E RIBARY WAY
< 1/8 NORTH BEND, WA 98045
0.094 mi.
494 ft.

WA ALLSITES 1011281431
FINDS N/A

Actual: ALLSITES:
462 ft. Name: NORTH BEND CITYRIBARY CRK STABILIZATION
Focus Map: Facility Id: 2002431
17

Interaction: 9694
Interaction 1: A
Interaction 2: SEAPROJ

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND CITYRIBARY CRK STABILIZATION (Continued)

1011281431

Ecology Program: SEA
Program Data: AQUATICS
Facility Alt.: Not reported
Program ID: 200700247
Date Interaction: 2007-05-02 00:00:00
Date Interaction 3: SEA Project Site
Latitude: 47.486200975999999
Longitude: -121.797307828

Interaction: 9695
Interaction 1: A
Interaction 2: NONENFNL
Ecology Program: SEA
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 2007-05-03 00:00:00
Date Interaction 3: Non Enforcement Final
Latitude: 47.486200975999999
Longitude: -121.797307828

FINDS:

Registry ID: 110036136428
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110036136428

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

CI371
South
< 1/8
0.095 mi.
500 ft.
AT&T CORP 412TH
12805 412TH AVE SE
NORTH BEND, WA 98045
Site 1 of 2 in cluster CI

RCRA NonGen / NLR
FINDS
ECHO
1001969785
WAT540012580

Actual:
455 ft.
Focus Map:
17
RCRA NonGen / NLR:
Date form received by agency: 2004-03-05 00:00:00.0
Facility name: AT&T CORP 412TH
Facility address: 12805 412TH AVE SE
NORTH BEND, WA 98045
EPA ID: WAT540012580
Mailing address: 1905 ASTON AVE
CARLSBAD, WA 92008
Contact: JEFF KACIREK
Contact address: 1905 ASTON AVE
CARLSBAD, CA 92008
Contact country: US
Contact telephone: 760-602-8700
Telephone ext.: 8213

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AT&T CORP 412TH (Continued)

1001969785

Contact email: Not reported
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: ROMANO, PEGGY
Owner/operator address: 15008 8TH AVE SW
SEATTLE, WA 98166
Owner/operator country: US
Owner/operator telephone: 206-431-1250
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: AT T CORP
Owner/operator address: 295 MAPLE AVE
BASKING RIDGE, NJ 07920
Owner/operator country: US
Owner/operator telephone: 201-645-4113
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 1997-07-07 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: AT T CORP
Owner/operator address: 295 MAPLE AVE
BASKING RIDGE, NJ 07920
Owner/operator country: US
Owner/operator telephone: 201-645-4113
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AT&T CORP 412TH (Continued)

1001969785

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2004-03-04 00:00:00.0
Site name: AT&T CORP 412TH
Classification: Not a generator, verified

Date form received by agency: 2003-12-31 00:00:00.0
Site name: AT&T CORP 112TH
Classification: Not a generator, verified

Date form received by agency: 2003-09-08 00:00:00.0
Site name: AT&T CORP 112TH
Classification: Not a generator, verified

Date form received by agency: 2002-03-05 00:00:00.0
Site name: AT&T CORP 112TH
Classification: Not a generator, verified

Date form received by agency: 2001-03-05 00:00:00.0
Site name: AT&T CORP 112TH
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2000-03-02 00:00:00.0
Site name: AT&T CORP 112TH
Classification: Not a generator, verified

Date form received by agency: 1999-02-23 00:00:00.0
Site name: AT&T CORP 112TH
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 1998-11-02 00:00:00.0
Site name: AT&T CORP 112TH
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 1997-07-07 00:00:00.0
Site name: AT&T CORP 112TH
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 1997-07-07 00:00:00.0
Site name: AT&T CORP 112TH
Classification: Not a generator, verified

Date form received by agency: 1996-02-27 00:00:00.0
Site name: AT&T CORP 112TH
Classification: Not a generator, verified

Date form received by agency: 1996-02-26 00:00:00.0
Site name: AT&T CORP 112TH
Classification: Conditionally Exempt Small Quantity Generator

Violation Status: No violations found

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AT&T CORP 412TH (Continued)

1001969785

FINDS:

Registry ID: 110005407354
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110005407354

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.
HAZARDOUS WASTE BIENNIAL REPORTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1001969785
Registry ID: 110005407354
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110005407354>

CI372 NORTH BEND B530350/NBNDWA01
South 12805 412TH AVE SE
< 1/8 NORTH BEND, WA 98045
0.095 mi.
500 ft. Site 2 of 2 in cluster CI

WA UST U001126213
WA ALLSITES N/A

Actual:
455 ft.

Focus Map:
17

UST:

Name: NORTH BEND B530350/NBNDWA01
Address: 12805 412TH AVE SE
City: NORTH BEND
Zip: 98045
Facility ID: 32493584
Site Id: 10117
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.487624
Decimal Longitude: -121.792061

Tank Name: 1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND B530350/NBNDWA01 (Continued)

U001126213

Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: NORTH BEND B530350/NBNDWA01
Address: 12805 412TH AVE SE
City: NORTH BEND
Zip: 98045

Tank Name: 2
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: AT&T CORP 412TH
Facility Id: 56274392

Interaction: 51962
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND B530350/NBNDWA01 (Continued)

U001126213

Program ID: WAT540012580
Date Interaction: 1989-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.487804330000003
Longitude: -121.79084522300001

Interaction: 51965
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAT540012580
Date Interaction: 2006-07-25 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.487804330000003
Longitude: -121.79084522300001

Interaction: 51964
Interaction 1: I
Interaction 2: HWOTHER
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAT540012580
Date Interaction: 2002-12-31 00:00:00
Date Interaction 3: Haz Waste Management Acti
Latitude: 47.487804330000003
Longitude: -121.79084522300001

Interaction: 51963
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAT540012580
Date Interaction: 1997-07-07 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.487804330000003
Longitude: -121.79084522300001

Interaction: 51961
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAT540012580
Date Interaction: 1981-03-23 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.487804330000003
Longitude: -121.79084522300001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND B530350/NBNDWA01 (Continued)

U001126213

Name: NORTH BEND B530350 NBNDWA01
Facility Id: 32493584

Interaction: 37949
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 10117
Date Interaction: 2000-02-29 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.487618329
Longitude: -121.792046222

373
ESE
< 1/8
0.115 mi.
607 ft.

LOOP VEHICLE MAINTENANCE FACILITY

**WA ALLSITES S120845880
N/A**

NORTH BEND, WA 98045

**Actual:
717 ft.
Focus Map:
20**

ALLSITES:
Name: LOOP VEHICLE MAINTENANCE FACILITY
Facility Id: 18976

Interaction: 122851
Interaction 1: A
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Loop Vehicle Maintenance Facility
Program ID: WAR305645
Date Interaction: 2017-06-21 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.468662397000003
Longitude: -121.713951288

**CJ374
North
< 1/8
0.117 mi.
618 ft.**

**SI VIEW METROPOLITAN PARK DISTRICT
901 BENDIGO BLVD N
NORTH BEND, WA 98045**

**RCRA NonGen / NLR 1019910255
WAH000051785**

Site 1 of 2 in cluster CJ

**Actual:
434 ft.
Focus Map:
12**

RCRA NonGen / NLR:
Date form received by agency: 2018-03-16 00:00:00.0
Facility name: SI VIEW METROPOLITAN PARK DISTRICT
Facility address: 901 BENDIGO BLVD N
NORTH BEND, WA 98045

EPA ID: WAH000051785
Mailing address: PO BOX 346
NORTH BEND, WA 98045

Contact: TRAVIS STOMBAUGH
Contact address: PO BOX 346
NORTH BEND, WA 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SI VIEW METROPOLITAN PARK DISTRICT (Continued)

1019910255

Contact country: US
Contact telephone: 425-831-1900
Contact email: TSTOMBAUGH@SIVIEWPARK.ORG
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: CITY OF NORTH BEND
Owner/operator address: PO BOX 896
NORTH BEND, WA 98045

Owner/operator country: US
Owner/operator telephone: 425-888-1211
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: SI VIEW METROPOLITAN PARK DISTRICT
Owner/operator address: PO BOX 896
NORTH BEND, WA 98045

Owner/operator country: US
Owner/operator telephone: 425-888-1211
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 2001-01-01 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2018-03-15 00:00:00.0
Site name: SI VIEW METROPOLITAN PARK DISTRICT
Classification: Not a generator, verified

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SI VIEW METROPOLITAN PARK DISTRICT (Continued)

1019910255

Date form received by agency: 2017-02-07 00:00:00.0
Site name: SI VIEW METROPOLITAN PARK DISTRICT
Classification: Small Quantity Generator

Date form received by agency: 2016-10-21 00:00:00.0
Site name: SI VIEW METROPOLITAN PARK DISTRICT
Classification: Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D008
. Waste name: LEAD

Violation Status: No violations found

CJ375
North
< 1/8
0.117 mi.
618 ft.

SI VIEW METROPOLITAN PARK DISTRICT
901 BENDIGO BLVD N
NORTH BEND, WA 98045
Site 2 of 2 in cluster CJ

WA ALLSITES **S118955205**
WA MANIFEST **N/A**

Actual:
434 ft.
Focus Map:
12

ALLSITES:
Name: SI VIEW METROPOLITAN PARK DISTRICT
Facility Id: 11539

Interaction: 119902
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Si View Metropolitan Park District
Program ID: WAH000051785
Date Interaction: 2016-10-21 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.502984994000002
Longitude: -121.794195156

WA MANIFEST:

Name: SI VIEW METROPOLITAN PARK DISTRICT
Address: 901 BENDIGO BLVD N
City,State,Zip: NORTH BEND, WA 98045
Facility Address 2: Not reported
Facility ID: 11539
EPA ID: WAH000051785
NAICS: 924120
State Waste Code Desc: Not reported
Federal Waste Code Desc: D006,D008
Form Comm: Not reported
Data Year: 2016
Permit by Rule: False
Mailing Address 2: Not reported
Treatment by Generator: False
Mixed Radioactive Waste: False
Importer of Hazardous Waste: False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SI VIEW METROPOLITAN PARK DISTRICT (Continued)

S118955205

Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602303464
Business Type:	Local Government
Mail Name:	Si View Metropolitan Park District
Mailing Address:	PO Box 346
Mailing City,State,Zip:	North Bend, WA 98045
Legal Organization Name:	Si View Metropolitan Park District
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	PO Box 896
Legal Address 2:	Not reported
Legal City,State,Zip:	North Bend, WA 98045
Legal Phone Number:	425-888-1211
Legal Effective Date:	01/01/2001
Land Organization Name:	City of North Bend
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	PO Box 896
Land City,State,Zip:	North Bend, WA 98045
Land Phone Number:	425-888-1211
Operator Organization Name:	Si View Metropolitan Park District
Operator Organization Type:	Municipal
Operator:	Not reported
Operator Address:	PO Box 346
Operator Address 2:	Not reported
Operator City,State,Zip:	North Bend, WA 98045
Operator Phone Number:	425-831-1900
Operator Effective Date:	01/01/2009
Site Contact:	Travis Stombaugh
Site Contact Address:	PO Box 346
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	425-831-1900
Site Contact Email:	tstombaugh@siviewpark.org
Gen Status Code:	MQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	True
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SI VIEW METROPOLITAN PARK DISTRICT (Continued)

S118955205

Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Waste Stream Generated:	
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W101
Description:	Solids N.O.S Lead Cadmium
CORb Sequence Number:	158393
Sequence Number:	3412331
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quantity:	100
Quantity Unit:	LB
Kilograms Quantity:	45.3600007
Density Number:	0
Density Quantity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W101
Description:	Liquid N.O.S Lead
CORb Sequence Number:	158393
Sequence Number:	3412328
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quantity:	1125
Quantity Unit:	LB
Kilograms Quantity:	510.300008
Density Number:	0
Density Quantity:	Not reported
Waste Stream Off Site Mgmt:	
Waste CORB Sequence Number:	158393
Waste Sequence Number:	3412331
Sequence Number:	907117
Received EPAID:	NVT330010000
Managed Quantity:	100
Kilogram Quantity:	45.3600007

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SI VIEW METROPOLITAN PARK DISTRICT (Continued)

S118955205

Recycled Percentage: Not reported
Waste Management System Code: H132

Waste Sequence Number: 3412328
Sequence Number: 907116
Received EPAID: NVT330010000
Managed Quantity: 1125
Kilogram Quantity: 510.300008
Recycled Percentage: Not reported
Waste Management System Code: H132

Waste Stream Comments:

CORB Waste Sequence Number: 158393
Comments: Lead paint was removed from the exterior of an historic farmhouse using water.

Waste Sequence Number: 3412328
Sequence Number: 1

Comments: We removed lead paint from a Historic Farmhouse using water
Waste Sequence Number: 3412331
Sequence Number: 1

Waste Stream EPA Code:

CORB Waste Sequence Number: 158393
Waste Sequence Number: 3412328
Sequence Number: 7897940
WCDA Code: D008

Waste Sequence Number: 3412331
Sequence Number: 7897942
WCDA Code: D006

Waste Sequence Number: 3412331
Sequence Number: 7897943
WCDA Code: D008

Waste Stream Source Code:

CORB Waste Sequence Number: 158393
Waste Sequence Number: 3412328
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 3412331
Sequence Number: 1
WCDD Code: G19

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

376 **TOLLGATE FARM PARK TRAIL**
North
1/8-1/4 **NORTH BEND, WA 98045**
0.128 mi.
674 ft.

WA ALLSITES **S122511524**
N/A

Actual: **432 ft.** **ALLSITES:**
Focus Map: **12** **Name:** **TOLLGATE FARM PARK TRAIL**
Facility Id: **31320**

CK377 **KENS TRUCK STOP**
South **46630 SE NORTH BEND WAY**
1/8-1/4 **NORTH BEND, WA 98045**
0.132 mi.
695 ft. **Site 1 of 4 in cluster CK**

WA LUST **S109524165**
WA SPILLS **N/A**

Actual: **671 ft.** **LUST:**
Focus Map: **25** **Name:** **KENS TRUCK STOP**
Address: **46630 SE NORTH BEND WAY**
City,State,Zip: **NORTH BEND, WA 98045**
Facility ID: **2484**
Lust Status Type: **LUST - NFA**
Cleanup Site ID: **5117**
Cleanup Unit Type: **Not reported**
Process Type: **Not reported**
Cleanup Unit Name: **HPT TA PROPERTIES TRUST,SEATTLE EAST AUTO TRUCK PLAZA**
Response Section: **Northwest**
Release Date: **01/08/1999**
Lust Date: **10/03/2011**
Region: **Northwest**
Lust ID: **5154**
UST ID: **2885**
Contaminant Name: **Petroleum-Diesel**
Ground Water: **Not reported**
Surface Water: **Not reported**
Soil: **Confirmed Above Cleanup Levels**
Sediment: **Not reported**
Air: **Not reported**
Bedrock: **Not reported**
Lat/Long: **47.4681537 / -121.71822**

Name: **KENS TRUCK STOP**
Address: **46630 SE NORTH BEND WAY**
City,State,Zip: **NORTH BEND, WA 98045**
Facility ID: **2484**
Lust Status Type: **LUST - NFA**
Cleanup Site ID: **5117**
Cleanup Unit Type: **Not reported**
Process Type: **Not reported**
Cleanup Unit Name: **HPT TA PROPERTIES TRUST,SEATTLE EAST AUTO TRUCK PLAZA**
Response Section: **Northwest**
Release Date: **01/08/1999**
Lust Date: **10/03/2011**
Region: **Northwest**
Lust ID: **5154**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KENS TRUCK STOP (Continued)

S109524165

UST ID: 2885
Contaminant Name: Petroleum-Other
Ground Water: Not reported
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.4681537 / -121.71822

SPILLS:

Name: SHELL GAS STATION
Address: 46630 NORTH BEND WY
City,State,Zip: NORTH BEND, WA
Facility ID: 624717
Medium: IMPERMEABLE CONTAINMENT
Material Desc: PETROLEUM - DIESEL FUEL
Material Qty: Not reported
Material Units: GALLON
Date Received: 01/26/2011
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

CK378 TRAVEL CENTERS OF AMERICA N BEND
South 46630 NORTH BEND WAY
1/8-1/4 NORTH BEND, WA 98045
0.132 mi.
695 ft. Site 2 of 4 in cluster CK

WA ALLSITES S121970051
N/A

Actual: ALLSITES:
671 ft. Name: TRAVEL CENTERS OF AMERICA N BEND
Focus Map: Facility Id: 2807661
25

Interaction: 11375
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Not reported
Program ID: CRK000060320
Date Interaction: 2004-03-16 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.467014671999998
Longitude: -121.718349227

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRAVEL CENTERS OF AMERICA N BEND (Continued)

S121970051

Interaction: 11376
Interaction 1: A
Interaction 2: ENFORFNL
Ecology Program: SPILLS
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 2007-08-02 00:00:00
Date Interaction 3: Enforcement Final
Latitude: 47.467014671999998
Longitude: -121.718349227

CK379 **HPT TA PROPERTIES TRUST**
South **46630 SE NORTH BEND WAY**
1/8-1/4 **NORTH BEND, WA 98045**
0.132 mi.
695 ft. **Site 3 of 4 in cluster CK**

WA UST **U004131370**
N/A

Actual:
671 ft.

UST:

Focus Map:
25

Name: HPT TA PROPERTIES TRUST
Address: 46630 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045
Facility ID: 2484
Site Id: 2885
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.4681537853278
Decimal Longitude: -121.718225962035

Tank Name: 1
Tag Number: A3950
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1976
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 01/31/2020
Tank Upgrade Date: 08/26/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Impressed Current and Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HPT TA PROPERTIES TRUST (Continued)

U004131370

Name: HPT TA PROPERTIES TRUST
Address: 46630 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 10
Tag Number: A3950
Tank Status: Operational
Tank Status Date: 09/09/2010
Tank Install Date: 01/01/1998
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 01/31/2020
Tank Upgrade Date: Not reported
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: 25 Gallons or less
Tank Material: Fiberglass Reinforced Plastic
Tank Construction: Double Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Other
Pipe Construction: No Piping Attached to Tank
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Gravity Delivery System (No Pump)
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: HPT TA PROPERTIES TRUST
Address: 46630 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 1A.
Tag Number: A3950
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1977
Tank Closure Date: Not reported
Capacity Range: 1,101 to 2,000 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: 10/21/1998
Tank Spill Prevention: 25 Gallons or less
Tank Overfill Prevention: 25 Gallons or less
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Sacrificial Anode
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Not reported
Pipe Material: Other
Pipe Construction: Single Wall Pipe

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HPT TA PROPERTIES TRUST (Continued)

U004131370

Pipe Primary Release Detection: Other
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Gravity Delivery System (No Pump)
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Not reported

Name: HPT TA PROPERTIES TRUST
Address: 46630 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 2
Tag Number: A3950
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1976
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 01/31/2020
Tank Upgrade Date: 06/10/1996
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Every 5 Years
Tank Corrosion Protection: Impressed Current and Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispencer/Pump SFC Type: Sump

Name: HPT TA PROPERTIES TRUST
Address: 46630 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 3
Tag Number: A3950
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1976
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 01/31/2020
Tank Upgrade Date: 06/10/1996
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Steel
Tank Construction: Single Wall Tank

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HPT TA PROPERTIES TRUST (Continued)

U004131370

Tank Tightness Test: Every 5 Years
Tank Corrosion Protection: Impressed Current and Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

Name: HPT TA PROPERTIES TRUST
Address: 46630 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 4
Tag Number: A3950
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1976
Tank Closure Date: Not reported
Capacity Range: 5,000 to 9,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Statistical Inventory Reconciliation
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Other
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: HPT TA PROPERTIES TRUST
Address: 46630 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 5
Tag Number: A3950
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1976
Tank Closure Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HPT TA PROPERTIES TRUST (Continued)

U004131370

Capacity Range: 5,000 to 9,999 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: None
Tank Overfill Prevention: None
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Single Wall Pipe
Pipe Primary Release Detection: Other
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

CK380 **HPT TA PROPERTIES TRUST**
South **46630 SE NORTH BEND WAY**
1/8-1/4 **NORTH BEND, WA 98045**
0.132 mi.
695 ft. **Site 4 of 4 in cluster CK**

WA ALLSITES **S121970011**
WA CSCSL NFA **N/A**

Actual:
671 ft.
Focus Map:
25

ALLSITES:

Name: HPT TA PROPERTIES TRUST
Facility Id: 2484

Interaction: 4577
Interaction 1: I
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 2885
Date Interaction: 1999-01-08 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.468148870999997
Longitude: -121.71822561099999

Interaction: 4576
Interaction 1: I
Interaction 2: IRAP
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: HPT TA PROPERTIES TRUST
Program ID: Not reported
Date Interaction: 1994-09-27 00:00:00
Date Interaction 3: Independent Remedial Actn
Latitude: 47.468148870999997
Longitude: -121.71822561099999

Interaction: 4575

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HPT TA PROPERTIES TRUST (Continued)

S121970011

Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 2885
Date Interaction: 1976-01-01 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.468148870999997
Longitude: -121.71822561099999

CSCSL NFA:

Name: KENS TRUCK STOP
Address: 46630 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 2484
CS Id: 5117
NFA Date: 10/03/2011
Alternate Site Names: HPT TA PROPERTIES TRUST,SEATTLE EAST AUTO TRUCK PLAZA
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Diesel
Ground Water: Not reported
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.468153785
Longitude: -121.71822596

Name: KENS TRUCK STOP
Address: 46630 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility/Site Id: 2484
CS Id: 5117
NFA Date: 10/03/2011
Alternate Site Names: HPT TA PROPERTIES TRUST,SEATTLE EAST AUTO TRUCK PLAZA
NFA Reason: NFA-Initial Investigation
Site Status: NFA
Region: Northwest
Contaminant Name: Petroleum-Other
Ground Water: Not reported
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.468153785
Longitude: -121.71822596

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CL381
South
1/8-1/4
0.140 mi.
737 ft.
HPT TA PROPERTIES TRUST
46600 SE NORTH BEND WAY
NORTH BEND, WA 98045
Site 1 of 3 in cluster CL

WA ALLSITES
WA SPILLS
WA Financial Assurance
S109525000
N/A

Actual:
665 ft.
Focus Map:
25

ALLSITES:

Name: PETROCARD SYSTEMS INC 1
Facility Id: 3771329
Interaction: 13373
Interaction 1: A
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: HPT TA PROPERTIES TRUST
Program ID: 619565
Date Interaction: 2009-01-21 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.467575191999998
Longitude: -121.71671651

Interaction: 113402
Interaction 1: A
Interaction 2: ENFORFNL
Ecology Program: TOXICS
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 2015-05-21 00:00:00
Date Interaction 3: Enforcement Final
Latitude: 47.467575191999998
Longitude: -121.71671651

SPILLS:

Name: TA TRUCK STOP
Address: 46600 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 108968
Medium: Soil
Material Desc: DIESEL LOW SULPHUR (ULSD)
Material Qty: 15
Material Units: Gals
Date Received: Not reported
Contact Name: Not reported
Incident Date: 11/17/2019
Incident Category Type: Oil Spill
Incident Category: Oil Spill
Latitude: 47.46824
Longitude: -121.71831
Source Type: Vehicle
Source: Commercial Truck
Vessel Facility Name2: Not reported
Recovered Quantity: 0
Resp Party Contact: Not reported
Cause: Melton Truck Lines diesel spill 11-17-2019
Cause Type: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HPT TA PROPERTIES TRUST (Continued)

S109525000

Resp Party Name: Melton Truck lines

WA Financial Assurance 1:

Name: HPT TA PROPERTIES TRUST
Address: 46600 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 619565
Financial Resp Type: LLOYD'S SYNDICATES-BEAZLEY
Inception Date: 06/01/2018
Expiration Date: 06/01/2019
Address 2: Not reported
Policy Number: WA231A5180101
Effective Date: 06/01/2018
Liability Limit Type: Not reported
Compliance Method: Not reported
Proof of Responsibility Document Flag: Not reported
Retroactive Date: Not reported
Latitude: 47.467581467
Longitude: -121.71672359

Name: HPT TA PROPERTIES TRUST
Address: 46600 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 619565
Financial Resp Type: AIG SPECIALTY INSURANCE COMPANY
Inception Date: 06/01/2017
Expiration Date: 06/01/2018
Address 2: Not reported
Policy Number: 19131488
Effective Date: 06/01/2017
Liability Limit Type: Not reported
Compliance Method: Not reported
Proof of Responsibility Document Flag: Not reported
Retroactive Date: Not reported
Latitude: 47.467581467
Longitude: -121.71672359

Name: HPT TA PROPERTIES TRUST
Address: 46600 SE NORTH BEND WAY
City,State,Zip: NORTH BEND, WA 98045
DOE Site ID: 619565
Financial Resp Type: AIG SPECIALTY INSURANCE COMPANY
Inception Date: 06/01/2016
Expiration Date: 06/01/2017
Address 2: Not reported
Policy Number: 19131488
Effective Date: 06/01/2016
Liability Limit Type: Not reported
Compliance Method: Not reported
Proof of Responsibility Document Flag: Not reported
Retroactive Date: Not reported
Latitude: 47.467581467
Longitude: -121.71672359

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CL382 **HPT TA PROPERTIES TRUST**
South **46600 SE NORTH BEND WAY**
1/8-1/4 **NORTH BEND, WA 98045**
0.140 mi.
737 ft. **Site 2 of 3 in cluster CL**

WA UST **U004020787**
 N/A

Actual:
665 ft.

UST:

Focus Map:
25

Name: HPT TA PROPERTIES TRUST
Address: 46600 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045
Facility ID: 3771329
Site Id: 619565
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.4675814667401
Decimal Longitude: -121.716723591833

Tank Name: 6
Tag Number: A4547, A5637
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1976
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 01/31/2020
Tank Upgrade Date: 08/26/1998
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Impressed Current and Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

Name: HPT TA PROPERTIES TRUST
Address: 46600 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 7
Tag Number: A4547, A5637
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1977
Tank Closure Date: Not reported
Capacity Range: 5,000 to 9,999 Gallons
Tank Permit Expiration Date: 01/31/2020
Tank Upgrade Date: 08/26/1998

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HPT TA PROPERTIES TRUST (Continued)

U004020787

Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Impressed Current and Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Automatic Tank Gauging
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

Name: HPT TA PROPERTIES TRUST
Address: 46600 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 8
Tag Number: A4547, A5637
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 01/01/1976
Tank Closure Date: Not reported
Capacity Range: 10,000 to 19,999 Gallons
Tank Permit Expiration Date: 01/31/2020
Tank Upgrade Date: 06/10/1996
Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Overfill Alarm
Tank Material: Steel
Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Impressed Current and Interior Lining
Tank Manifold: Not reported
Tank Release Detection: Statistical Inventory Reconciliation
Tank SFC Type: Sump
Pipe Material: Fiberglass
Pipe Construction: Double Wall Pipe
Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection: Annual Line Tightness Test (LTT)
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Sump

Name: HPT TA PROPERTIES TRUST
Address: 46600 SE NORTH BEND WAY
City: NORTH BEND
Zip: 98045

Tank Name: 9
Tag Number: A4547, A5637

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HPT TA PROPERTIES TRUST (Continued)

U004020787

Tank Status: Operational
 Tank Status Date: 01/22/2009
 Tank Install Date: 02/25/1999
 Tank Closure Date: Not reported
 Capacity Range: 10,000 to 19,999 Gallons
 Tank Permit Expiration Date: 01/31/2020
 Tank Upgrade Date: Not reported
 Tank Spill Prevention: Spill Bucket/Spill Box
 Tank Overfill Prevention: Overfill Alarm
 Tank Material: Fiberglass Reinforced Plastic
 Tank Construction: Double Wall Tank
 Tank Tightness Test: Part of Automatic Tank Gauging (ATG) System
 Tank Corrosion Protection: Corrosion Resistant
 Tank Manifold: Not reported
 Tank Release Detection: Automatic Tank Gauging
 Tank SFC Type: Sump
 Pipe Material: Fiberglass
 Pipe Construction: Double Wall Pipe
 Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)
 Pipe Second Release Detection: Annual Line Tightness Test (LTT)
 Pipe Corrosion Protection: Corrosion Resistant
 Pipe Pumping System: Pressurized System
 Responsible Unit: Northwest
 Dispenser/Pump SFC Type: Sump

CL383 **PACIFIC PRIDE STATION**
South
1/8-1/4 **NORTH BEND, WA**
0.153 mi.
807 ft. **Site 3 of 3 in cluster CL**

WA ALLSITES **S109553998**
N/A

Actual: **ALLSITES:**
663 ft. Name: **PACIFIC PRIDE STATION**
Focus Map: Facility Id: **5327972**
25

Interaction: 16506
 Interaction 1: A
 Interaction 2: ENFORFNL
 Ecology Program: SPILLS
 Program Data: DMS
 Facility Alt.: Not reported
 Program ID: Not reported
 Date Interaction: 2006-08-31 00:00:00
 Date Interaction 3: Enforcement Final
 Latitude: 47.466913658000003
 Longitude: -121.718780248

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CM384 **GENIE INDUSTRIES NORTH BEND**
East **47020 SE 144TH ST**
1/8-1/4 **NORTH BEND, WA 98045**
0.174 mi.
918 ft. **Site 1 of 2 in cluster CM**

RCRA-VSQG **1014402258**
WAH000035177

Actual:
743 ft.

RCRA-VSQG:

Date form received by agency: 2018-03-01 00:00:00.0

Focus Map:
20

Facility name: GENIE INDUSTRIES NORTH BEND

Facility address: 47020 SE 144TH ST
NORTH BEND, WA 98045

EPA ID: WAH000035177

Mailing address: PO BOX 97030
REDMOND, WA 98073

Contact: GREG CRUMB

Contact address: PO BOX 97030
NORTH BEND, WA 98045

Contact country: US

Contact telephone: 425-831-2834

Contact email: GREG.CRUMB@TEREX.COM

EPA Region: 10

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: GENIE INDUSTRIES

Owner/operator address: PO BOX 97030
REDMOND, WA 98073

Owner/operator country: US

Owner/operator telephone: 425-895-6374

Owner/operator email: Not reported

Owner/operator fax: Not reported

Owner/operator extension: Not reported

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: Not reported

Owner/Op end date: Not reported

Owner/operator name: GENIE INDUSTRIES

Owner/operator address: PO BOX 97030
REDMOND, WA 98073

Owner/operator country: US

Owner/operator telephone: 425-895-6374

Owner/operator email: Not reported

Owner/operator fax: Not reported

Owner/operator extension: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

1014402258

Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MIDDLEFORK LLC
Owner/operator address: 165 JUNIPER ST STE 100
ISSAQUAH, WA 98027

Owner/operator country: US
Owner/operator telephone: 425-837-9720
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2017-02-28 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2016-02-09 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2015-03-23 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2014-03-06 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2013-02-13 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

1014402258

Date form received by agency: 2012-02-09 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2012-02-09 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2011-02-23 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2011-02-23 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2011-02-23 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2010-02-11 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2010-02-11 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 2009-08-04 00:00:00.0
Site name: GENIE INDUSTRIES NORTH BEND
Classification: Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D018
. Waste name: BENZENE

. Waste code: D025
. Waste name: P-CRESOL

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

1014402258

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: WT02
- . Waste name: Washington State Dangerous Toxic Waste with a toxic constituents concentration greater than or equal to 0.001% and less than 1.0%, determined by biological testing methods or a book designation procedure.
- Violation Status: No violations found

CM385
East
1/8-1/4
0.174 mi.
918 ft.

GENIE INDUSTRIES NORTH BEND
47020 SE 144TH ST
NORTH BEND, WA 98045
Site 2 of 2 in cluster CM

WA ALLSITES **S109824307**
WA MANIFEST **N/A**

Actual:
743 ft.
Focus Map:
20

ALLSITES:
Name: GENIE INDUSTRIES SERVICE PARTS WARRANTY BLDG
Facility Id: 98024

Name: GENIE INDUSTRIES NORTH BEND
Facility Id: 8165

Interaction: 78668
Interaction 1: A
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: GENIE INDUSTRIES NORTH BEND
Program ID: WAH000035177
Date Interaction: 2009-08-04 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.469394323000003
Longitude: -121.715415239

WA MANIFEST:
Name:

GENIE INDUSTRIES NORTH BEND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Address:	47020 SE 144TH ST
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	8165
EPA ID:	WAH000035177
NAICS:	333120
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001,D005,D002,D008,D018,D035
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578077413
Business Type:	Mfg parts const machinery
Mail Name:	Genie Industries
Mailing Address:	PO Box 97030
Mailing City,State,Zip:	Redmond, WA 98073-0730
Legal Organization Name:	Genie Industries
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	PO Box 97030
Legal Address 2:	Not reported
Legal City,State,Zip:	Redmond, WA 98073-0730
Legal Phone Number:	(425)895-6374
Legal Effective Date:	Not reported
Land Organization Name:	Middlefork LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	165 Juniper St Ste 100
Land City,State,Zip:	Issaquah, WA 98027
Land Phone Number:	(425)837-9720
Operator Organization Name:	Genie Industries
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 97030
Operator Address 2:	Not reported
Operator City,State,Zip:	Redmond, WA 98073-9730
Operator Phone Number:	(425)895-6374
Operator Effective Date:	Not reported
Site Contact:	Greg Crumb
Site Contact Address:	47020 SE 144TH ST
Contact City,State,Zip:	North Bend, WA 98045

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Site Contact Phone Number:	(425) 831 2834
Site Contact Email:	greg.crumb@terex.com
Gen Status Code:	SQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	GENIE INDUSTRIES NORTH BEND
Address:	47020 SE 144TH ST
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	8165
EPA ID:	WAH000035177
NAICS:	333120
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001,D002,D005,D008,D018,D035
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578077413
Business Type:	Not reported
Mail Name:	Not reported
Mailing Address:	PO Box 97030
Mailing City,State,Zip:	Redmond, WA 98073
Legal Organization Name:	Genie Industries
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	PO Box 97030

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Legal Address 2:	Not reported
Legal City,State,Zip:	Redmond, WA 98073
Legal Phone Number:	(425)895-6374
Legal Effective Date:	Not reported
Land Organization Name:	Middlefork LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	165 Juniper St Ste 100
Land City,State,Zip:	Issaquah, WA 98027
Land Phone Number:	(425)837-9720
Operator Organization Name:	Genie Industries
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 97030
Operator Address 2:	Not reported
Operator City,State,Zip:	Redmond, WA 98073
Operator Phone Number:	(425)895-6374
Operator Effective Date:	Not reported
Site Contact:	Not reported
Site Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Site Contact Phone Number:	Not reported
Site Contact Email:	Not reported
Gen Status Code:	SQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	GENIE INDUSTRIES NORTH BEND
Address:	47020 SE 144TH ST
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	8165
EPA ID:	WAH000035177
NAICS:	333120
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001,D005,D002,D008,D018,D035
Form Comm:	Not reported
Data Year:	2016
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578077413
Business Type:	Mfg parts const machinery
Mail Name:	Genie Industries
Mailing Address:	PO Box 97030
Mailing City,State,Zip:	Redmond, WA 98073-0730
Legal Organization Name:	Genie Industries
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	PO Box 97030
Legal Address 2:	Not reported
Legal City,State,Zip:	Redmond, WA 98073-0730
Legal Phone Number:	(425)895-6374
Legal Effective Date:	Not reported
Land Organization Name:	Middlefork LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	165 Juniper St Ste 100
Land City,State,Zip:	Issaquah, WA 98027
Land Phone Number:	(425)837-9720
Operator Organization Name:	Genie Industries
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 97030
Operator Address 2:	Not reported
Operator City,State,Zip:	Redmond, WA 98073-9730
Operator Phone Number:	(425)895-6374
Operator Effective Date:	Not reported
Site Contact:	Greg Crumb
Site Contact Address:	47020 SE 144TH ST
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	(425) 831 2834
Site Contact Email:	greg.crumb@terex.com
Gen Status Code:	SQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	GENIE INDUSTRIES NORTH BEND
Address:	47020 SE 144TH ST
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	8165
EPA ID:	WAH000035177
NAICS:	333120
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001,D018,D025,D005
Form Comm:	Not reported
Data Year:	2015
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578077413
Business Type:	Mfg parts const machinery
Mail Name:	Genie Industries
Mailing Address:	PO Box 97030
Mailing City,State,Zip:	Redmond, WA 98073-0730
Legal Organization Name:	Genie Industries
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	PO Box 97030
Legal Address 2:	Not reported
Legal City,State,Zip:	Redmond, WA 98073-0730
Legal Phone Number:	(425)895-6374
Legal Effective Date:	Not reported
Land Organization Name:	Middlefork LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	165 Juniper St Ste 100
Land City,State,Zip:	Issaquah, WA 98027
Land Phone Number:	(425)837-9720
Operator Organization Name:	Genie Industries
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 97030
Operator Address 2:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Operator City,State,Zip:	Redmond, WA 98073-9730
Operator Phone Number:	(425)895-6374
Operator Effective Date:	Not reported
Site Contact:	Greg Crumb
Site Contact Address:	47020 SE 144TH ST
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	(425) 831 2834
Site Contact Email:	greg.crumb@terex.com
Gen Status Code:	SQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	GENIE INDUSTRIES NORTH BEND
Address:	47020 SE 144TH ST
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	8165
EPA ID:	WAH000035177
NAICS:	333120
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001,D005,D018,D035
Form Comm:	Not reported
Data Year:	2014
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578077413
Business Type:	Mfg parts const machinery
Mail Name:	Genie Industries

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Mailing Address:	PO Box 97030
Mailing City,State,Zip:	Redmond, WA 98073-0730
Legal Organization Name:	Genie Industries
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	PO Box 97030
Legal Address 2:	Not reported
Legal City,State,Zip:	Redmond, WA 98073-0730
Legal Phone Number:	(425)895-6374
Legal Effective Date:	Not reported
Land Organization Name:	Middlefork LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	165 Juniper St Ste 100
Land City,State,Zip:	Issaquah, WA 98027
Land Phone Number:	(425)837-9720
Operator Organization Name:	Genie Industries
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 97030
Operator Address 2:	Not reported
Operator City,State,Zip:	Redmond, WA 98073-9730
Operator Phone Number:	(425)895-6374
Operator Effective Date:	Not reported
Site Contact:	Greg Crumb
Site Contact Address:	47020 SE 144TH ST
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	(425) 831 2834
Site Contact Email:	greg.crumb@terex.com
Gen Status Code:	SQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	GENIE INDUSTRIES NORTH BEND
Address:	47020 SE 144TH ST
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	8165
EPA ID:	WAH000035177
NAICS:	333120
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001, D005, D018, D035
Form Comm:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Data Year:	2013
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578077413
Business Type:	Mfg parts const machinery
Mail Name:	Genie Industries
Mailing Address:	PO Box 97030
Mailing City,State,Zip:	Redmond, WA 98073-0730
Legal Organization Name:	Genie Industries
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	PO Box 97030
Legal Address 2:	Not reported
Legal City,State,Zip:	Redmond, WA 98073-0730
Legal Phone Number:	(425)895-6374
Legal Effective Date:	Not reported
Land Organization Name:	Middlefork LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	165 Juniper St Ste 100
Land City,State,Zip:	Issaquah, WA 98027
Land Phone Number:	(425)837-9720
Operator Organization Name:	Genie Industries
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 97030
Operator Address 2:	Not reported
Operator City,State,Zip:	Redmond, WA 98073-9730
Operator Phone Number:	(425)895-6374
Operator Effective Date:	Not reported
Site Contact:	Greg Crumb
Site Contact Address:	47020 SE 144TH ST
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	(425) 831 2834
Site Contact Email:	greg.crumb@terex.com
Gen Status Code:	SQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	GENIE INDUSTRIES NORTH BEND
Address:	47020 SE 144TH ST
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	8165
EPA ID:	WAH000035177
NAICS:	333120
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001 D002 D035
Form Comm:	Not reported
Data Year:	2012
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578077413
Business Type:	Mfg parts const machinery
Mail Name:	Genie Industries
Mailing Address:	PO Box 97030
Mailing City,State,Zip:	Redmond, WA 98073-0730
Legal Organization Name:	Genie Industries
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	PO Box 97030
Legal Address 2:	Not reported
Legal City,State,Zip:	Redmond, WA 98073-0730
Legal Phone Number:	(425)895-6374
Legal Effective Date:	Not reported
Land Organization Name:	Middlefork LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	165 Juniper St Ste 100
Land City,State,Zip:	Issaquah, WA 98027

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Land Phone Number:	(425)837-9720
Operator Organization Name:	Genie Industries
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 97030
Operator Address 2:	Not reported
Operator City,State,Zip:	Redmond, WA 98073-9730
Operator Phone Number:	(425)895-6374
Operator Effective Date:	Not reported
Site Contact:	Greg Crumb
Site Contact Address:	47020 SE 144TH ST
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	(425) 831 2834
Site Contact Email:	greg.crumb@terex.com
Gen Status Code:	SQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	GENIE INDUSTRIES NORTH BEND
Address:	47020 SE 144TH ST
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	8165
EPA ID:	WAH000035177
NAICS:	333120
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001 D002 D035
Form Comm:	Not reported
Data Year:	2011
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578077413
Business Type:	Mfg parts const machinery
Mail Name:	Genie Industries
Mailing Address:	PO Box 97030
Mailing City,State,Zip:	Redmond, WA 98073-0730
Legal Organization Name:	Genie Industries
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	PO Box 97030
Legal Address 2:	Not reported
Legal City,State,Zip:	Redmond, WA 98073-0730
Legal Phone Number:	(425)895-6374
Legal Effective Date:	Not reported
Land Organization Name:	Middlefork LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	165 Juniper St Ste 100
Land City,State,Zip:	Issaquah, WA 98027
Land Phone Number:	(425)837-9720
Operator Organization Name:	Genie Industries
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 97030
Operator Address 2:	Not reported
Operator City,State,Zip:	Redmond, WA 98073-9730
Operator Phone Number:	(425)895-6374
Operator Effective Date:	Not reported
Site Contact:	Greg Crumb
Site Contact Address:	47020 SE 144TH ST
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	(425) 831 2834
Site Contact Email:	greg.crumb@terex.com
Gen Status Code:	SQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	GENIE INDUSTRIES NORTH BEND
Address:	47020 SE 144TH ST
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Facility ID:	8165
EPA ID:	WAH000035177
NAICS:	333120
State Waste Code Desc:	WT02
Federal Waste Code Desc:	D001, D002, D008, D009, D0018
Form Comm:	Not reported
Data Year:	2010
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578077413
Business Type:	Mfg parts const machinery
Mail Name:	Genie Industries
Mailing Address:	PO Box 97030
Mailing City,State,Zip:	Redmond, WA 98073-0730
Legal Organization Name:	Genie Industries
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	PO Box 97030
Legal Address 2:	Not reported
Legal City,State,Zip:	Redmond, WA 98073-0730
Legal Phone Number:	(425)895-6374
Legal Effective Date:	Not reported
Land Organization Name:	Middlefork LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	165 Juniper St Ste 100
Land City,State,Zip:	Issaquah, WA 98027
Land Phone Number:	(425)837-9720
Operator Organization Name:	Genie Industries
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 97030
Operator Address 2:	Not reported
Operator City,State,Zip:	Redmond, WA 98073-9730
Operator Phone Number:	(425)895-6374
Operator Effective Date:	Not reported
Site Contact:	Greg Crumb
Site Contact Address:	47020 SE 144TH ST
Contact City,State,Zip:	North Bend, WA 98045
Site Contact Phone Number:	(425) 831 2834
Site Contact Email:	greg.crumb@terex.com
Gen Status Code:	SQG

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	GENIE INDUSTRIES NORTH BEND
Address:	47020 SE 144TH ST
City,State,Zip:	NORTH BEND, WA 98045
Facility Address 2:	Not reported
Facility ID:	8165
EPA ID:	WAH000035177
NAICS:	333120
State Waste Code Desc:	WT02
Federal Waste Code Desc:	Not reported
Form Comm:	One shipment of WT02 Waste during the 2009 year.
Data Year:	2009
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	578077413
Business Type:	Mfg parts const machinery
Mail Name:	Genie Industries
Mailing Address:	PO Box 97030
Mailing City,State,Zip:	Redmond, WA 98073-0730
Legal Organization Name:	Genie Industries
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	PO Box 97030
Legal Address 2:	Not reported
Legal City,State,Zip:	Redmond, WA 98073-0730
Legal Phone Number:	(425)895-6374

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GENIE INDUSTRIES NORTH BEND (Continued)

S109824307

Legal Effective Date:	Not reported
Land Organization Name:	Middlefork LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	165 Juniper St Ste 100
Land City,State,Zip:	Issaquah, WA 98027
Land Phone Number:	(425)837-9720
Operator Organization Name:	Genie Industries
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	PO Box 97030
Operator Address 2:	Not reported
Operator City,State,Zip:	Redmond, WA 98073-9730
Operator Phone Number:	(425)895-6374
Operator Effective Date:	Not reported
Site Contact:	Echo Summers
Site Contact Address:	18340 NE 76th St
Contact City,State,Zip:	Redmond, WA 98052
Site Contact Phone Number:	(425)895-6374
Site Contact Email:	echo.summers@terex.com
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

[Click this hyperlink](#) while viewing on your computer to access
1 additional WA MANIFEST: record(s) in the EDR Site Report.

386
North
1/8-1/4
0.246 mi.
1300 ft.

NURSERY THE AT MT SI
42328 SE 108TH ST
NORTH BEND, WA 98045

WA ALLSITES **S110038786**
N/A

Actual:
438 ft.
Focus Map:
12

ALLSITES:	
Name:	NURSERY THE AT MT SI
Facility Id:	18929
Interaction:	88457
Interaction 1:	I
Interaction 2:	LSC
Ecology Program:	HAZWASTE
Program Data:	LSC
Facility Alt.:	Nursery The at Mt Si
Program ID:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NURSERY THE AT MT SI (Continued)

S110038786

Date Interaction: 2009-06-17 00:00:00
Date Interaction 3: Local Source Cntrl 7/09-3
Latitude: 47.505226327000003
Longitude: -121.77503722100001

387
South
1/4-1/2
0.266 mi.
1405 ft.

PEARCE INFILTRATION POND
14744 447TH AVE SE
NORTH BEND, WA 98045

WA ALLSITES **S123096251**
N/A

Actual:
522 ft.
Focus Map:
24

ALLSITES:
Name: PEARCE INFILTRATION POND
Facility Id: 33789

388
West
1/4-1/2
0.270 mi.
1427 ft.

NORTH BEND DRUM
1610 NW 8TH ST
NORTH BEND, WA 98045

WA ALLSITES **1000993137**
RCRA NonGen / NLR **WAR000001701**
FINDS
ECHO

Actual:
548 ft.
Focus Map:
11

ALLSITES:
Name: NORTH BEND DRUM
Facility Id: 43786988

Interaction: 44706
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAR000001701
Date Interaction: 1995-04-14 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.499484328999998
Longitude: -121.79223521900001

RCRA NonGen / NLR:

Date form received by agency: 1995-10-07 00:00:00.0
Facility name: NORTH BEND DRUM
Facility address: 1610 NW 8TH ST
NORTH BEND, WA 98045
EPA ID: WAR000001701
Mailing address: 3190 160TH AVE SE
BELLEVUE, WA 98008
Contact: DICK STOREY
Contact address: 3190 160TH AVE SE
BELLEVUE, WA 98008
Contact country: US

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND DRUM (Continued)

1000993137

Contact telephone: 425-649-7116
Contact email: Not reported
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: NORTH BEND DRUM
Owner/operator address: 1610 NW 8TH ST
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: WA STATE
Owner/operator address: 1610 NW 8TH ST
NORTH BEND, WA 98045
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 1997-02-24 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: STOREY, DICK
Owner/operator address: 3190 160TH AVE SE
BELLEVUE, WA 98008
Owner/operator country: US
Owner/operator telephone: 425-649-7116
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTH BEND DRUM (Continued)

1000993137

Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 1995-10-06 00:00:00.0
Site name: NORTH BEND DRUM
Classification: Small Quantity Generator

Date form received by agency: 1995-10-06 00:00:00.0
Site name: NORTH BEND DRUM
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110005399443
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110005399443

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000993137
Registry ID: 110005399443
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110005399443>

389
North
1/4-1/2
0.274 mi.
1447 ft.

NORMAN BROOK FARM INC
8000 N FORK RD
NORTH BEND, WA 98045

WA ALLSITES **1007076265**
FINDS **N/A**

Actual:
442 ft.
Focus Map:
3

ALLSITES:
Name: NORMAN BROOK FARM INC
Facility Id: 9870243

Interaction: 25458
Interaction 1: A
Interaction 2: WQDAIRY
Ecology Program: WATQUAL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORMAN BROOK FARM INC (Continued)

1007076265

Program Data: DAIRY
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 2002-08-05 00:00:00
Date Interaction 3: Dairy
Latitude: 47.528630589999999
Longitude: -121.771165801

FINDS:

Registry ID: 110015529187
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015529187

Environmental Interest/Information System:

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**390
East
1/4-1/2
0.298 mi.
1575 ft.**

MOUNT TENERIFFE TRAILHEAD

**WA ALLSITES S119162614
N/A**

, WA

**Actual:
841 ft.
Focus Map:
20**

ALLSITES:

Name: MOUNT TENERIFFE TRAILHEAD
Facility Id: 7667

Interaction: 120483
Interaction 1: I
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Mount Teneriffe Trailhead
Program ID: WAR304941
Date Interaction: 2016-12-15 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.486557793999999
Longitude: -121.70998929

Map ID	MAP FINDINGS		EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	
391	NORTHFORK ENTERPRISES	WA SWF/LF	S108108035
North	7830 NORTHFORK RD		N/A
1/4-1/2	SNOQUALMIE, WA 98065		
0.330 mi.			
1742 ft.			
Actual:	SWF/LF:		
443 ft.	Name:	NORTHFORK ENTERPRISES	
Focus Map:	Address:	7830 NORTHFORK RD	
3	City,State,Zip:	SNOQUALMIE, WA 98065	
	Facility ID:	2129	
	Region:	STATE	
	Permit Status:	Exempt	
	Contact Organization:	Northfork Enterprises	
	Contact Address1:	7830 Northfork Rd	
	Contact Address2:	Not reported	
	Contact City:	Snoqualmie	
	Contact State:	WA	
	Contact Postal:	98065	
	Contact EMail:	jlittlejohn@foxinternet.com	
	Contact Phone:	Not reported	
	Contact Phone Ext:	Not reported	
	Permit No:	Not reported	
	Phone:	425-864-3638	
	Operator Name:	Clayton Littlejohn	
	Operator Organization:	Northfork Enterprises	
	Operator EMail:	jlittlejohn@foxinternet.com	
	Operator Title:	Not reported	
	Recycle Survey Code:	7067	
	Ownership:	Not reported	
	Facility Type:	Pile of Inert Waste (exempt)	
	Contact Name:	Clayton Littlejohn	
	Contact Title:	Not reported	
	Year Closed:	Not reported	
	Open to Public Flag:	No	
	Website:	http://www.northforkenterprises.com	
	Latitude:	Not reported	
	Longitude:	Not reported	
	Name:	NORTHFORK ENTERPRISES	
	Address:	7830 NORTHFORK RD	
	City,State,Zip:	SNOQUALMIE, WA 98065	
	Facility ID:	2130	
	Region:	STATE	
	Permit Status:	Permit Not Required	
	Contact Organization:	Northfork Enterprises	
	Contact Address1:	7830 Northfork Rd	
	Contact Address2:	Not reported	
	Contact City:	Snoqualmie	
	Contact State:	WA	
	Contact Postal:	98065	
	Contact EMail:	jlittlejohn@foxinternet.com	
	Contact Phone:	Not reported	
	Contact Phone Ext:	Not reported	
	Permit No:	Not reported	
	Phone:	425-864-3638	
	Operator Name:	Clayton Littlejohn	
	Operator Organization:	Northfork Enterprises	
	Operator EMail:	jlittlejohn@foxinternet.com	

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORTHFORK ENTERPRISES (Continued)

S108108035

Operator Title: Not reported
Recycle Survey Code: 7067
Ownership: Not reported
Facility Type: Recycling (non-regulated)
Contact Name: Clayton Littlejohn
Contact Title: Not reported
Year Closed: Not reported
Open to Public Flag: No
Website: <http://www.northforkenterprises.com>
Latitude: Not reported
Longitude: Not reported

392
East
1/4-1/2
0.389 mi.
2055 ft.

KING CNTY DOT NORTH BEND PIT
MIDDLE FORK RD SE
NORTH BEND, WA 98045

WA ALLSITES
WA NPDES
S110039522
N/A

Actual:
813 ft.
Focus Map:
20

ALLSITES:
Name: KING CNTY DOT NORTH BEND PIT
Facility Id: 11696

Interaction: 87294
Interaction 1: A
Interaction 2: SANDGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: KING CNTY DOT NORTH BEND PIT
Program ID: WAG503143
Date Interaction: 1994-11-23 00:00:00
Date Interaction 3: Sand and Gravel GP
Latitude: 47.473094320999998
Longitude: -121.707985239

NPDES:
Name: KING CNTY DOT NORTH BEND PIT
Address: MIDDLE FORK RD SE
City,State,Zip: NORTH BEND, WA 98045-9740
Facility Status: Active
Facility Type: Sand and Gravel GP
Admin Region: Northwest
Date Issued: 02/17/2016
Latitude: 47.47310000
Longitude: -121.708
Permit ID: WAG503143
Permit Version: 4
Permit Status: Active
Permit SubStatus: Coverage Issued
Ecology Contact: Cynthia Walcker
WRIA: Snohomish
Permit Expiration Date: 03/31/2021
Effective Date: 04/01/2016
Days to Expiration: -533

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

393
WSW
1/4-1/2
0.418 mi.
2209 ft.

FURY CONSTRUCTION COMPANY
14536 415TH AVE SE
NORTH BEND, WA 98045

WA UST
WA ALLSITES

U001122759
N/A

Actual:
759 ft.

UST:

Focus Map:
22

Name: FURY CONSTRUCTION COMPANY
Address: 14536 415TH AVE SE
City: NORTH BEND
Zip: 98045
Facility ID: 19283672
Site Id: 2474
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.489014
Decimal Longitude: -121.788211

Tank Name: D
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Above Ground Piping
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

Name: FURY CONSTRUCTION COMPANY
Address: 14536 415TH AVE SE
City: NORTH BEND
Zip: 98045

Tank Name: G
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 12/31/1964
Tank Closure Date: Not reported
Capacity Range: 111 TO 1,100 Gallons
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FURY CONSTRUCTION COMPANY (Continued)

U001122759

Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel
Tank Construction: Not reported
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported
Tank Release Detection: Not reported
Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Above Ground Piping
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: Northwest
Dispenser/Pump SFC Type: Not reported

ALLSITES:

Name: FURY CONSTRUCTION COMPANY
Facility Id: 19283672

Interaction: 30990
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 2474
Date Interaction: 2000-02-29 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.489008329999997
Longitude: -121.788196223

394
North
1/4-1/2
0.426 mi.
2248 ft.

SNOQUALMIE VALLEY ATHLETIC CENTER
1422 BENDIGO BLVD N
NORTH BEND, WA 98065

WA ALLSITES S118955350
N/A

Actual:
434 ft.
Focus Map:
12

ALLSITES:

Name: SNOQUALMIE VALLEY ATHLETIC CENTER
Facility Id: 22429

Interaction: 119621
Interaction 1: A
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Snoqualmie Valley Athletic Center
Program ID: WAR304696
Date Interaction: 2016-09-01 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.506555669000001
Longitude: -121.797559169

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

395
South
1/4-1/2
0.435 mi.
2298 ft.

ATT MOBILITY MOUNTAIN VIEW
13323 409TH AVE SE
NORTH BEND, WA 98045

WA ALLSITES **S113831339**
N/A

Actual:
637 ft.

ALLSITES:

Focus Map:
17

Name: ATT MOBILITY MOUNTAIN VIEW
Facility Id: 4054

Interaction: 105262
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: ATT MOBILITY MOUNTAIN VIEW
Program ID: CRK000081830
Date Interaction: 2013-06-13 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.479824714000003
Longitude: -121.795980266

396
North
1/4-1/2
0.450 mi.
2374 ft.

SNOQUALMIE VALLEY YOUTH ACTIVITY CENTER
152 BOALCH AVE NW
NORTH BEND, WA 98045

WA ALLSITES **S121442303**
WA NPDES **N/A**

Actual:
432 ft.

ALLSITES:

Focus Map:
12

Name: SNOQUALMIE VALLEY YOUTH ACTIVITY CENTER
Facility Id: 19427

Interaction: 124148
Interaction 1: A
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Snoqualmie Valley Youth Activity Center
Program ID: WAR306024
Date Interaction: 2017-07-03 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.506186931000002
Longitude: -121.794232235

NPDES:

Name: SNOQUALMIE VALLEY YOUTH ACTIVITY CENTER
Address: 152 BOALCH AVE NW
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headquarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR306024
Permit Version: Not reported
Permit Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SNOQUALMIE VALLEY YOUTH ACTIVITY CENTER (Continued)

S121442303

Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 12/07/2017
Days to Expiration: -443

397 CADMAN INC NORTH BEND
ESE 47320 SE GROUSE RIDGE ACCESS RD
1/4-1/2 NORTH BEND, WA 98045
0.487 mi.
2570 ft.

WA SWF/LF S110038305
WA ALLSITES N/A
WA NPDES

Actual:
685 ft.
Focus Map:
25

SWF/LF:
Name: CADMAN INC. - NORTH BEND
Address: 47320 SE GROUSE RIDGE ACCESS RD
City,State,Zip: NORTH BEND, WA 98045
Facility ID: 3499
Region: STATE
Permit Status: Not reported
Contact Organization: _Unspecified
Contact Address1: Not reported
Contact Address2: Not reported
Contact City: Not reported
Contact State: Not reported
Contact Postal: Not reported
Contact EMail: Not reported
Contact Phone: Not reported
Contact Phone Ext: Not reported
Permit No: Not reported
Phone: Not reported
Operator Name: Not reported
Operator Organization: _Unspecified
Operator EMail: Not reported
Operator Title: Not reported
Recycle Survey Code: 0
Ownership: PRIVATE
Facility Type: Material Recovery Facility (exempt)
Contact Name: Not reported
Contact Title: Not reported
Year Closed: Not reported
Open to Public Flag: No
Website: Not reported
Latitude: 47.466577
Longitude: -121.710952

ALLSITES:

Name: CADMAN INC NORTH BEND
Facility Id: 6841

Interaction: 87805
Interaction 1: A
Interaction 2: SANDGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: CADMAN INC NORTH BEND
Program ID: WAG503344

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CADMAN INC NORTH BEND (Continued)

S110038305

Date Interaction: 2002-05-30 00:00:00
Date Interaction 3: Sand and Gravel GP
Latitude: 47.466571553000001
Longitude: -121.710952255

NPDES:

Name: CADMAN INC NORTH BEND
Address: 47320 SE GROUSE RIDGE ACCESS RD
City,State,Zip: NORTH BEND, WA 98045
Facility Status: Active
Facility Type: Sand and Gravel GP
Admin Region: Northwest
Date Issued: 02/17/2016
Latitude: 47.46656999
Longitude: -121.710963
Permit ID: WAG503344
Permit Version: 3
Permit Status: Active
Permit SubStatus: Coverage Issued
Ecology Contact: Cynthia Walcker
WRIA: Snohomish
Permit Expiration Date: 03/31/2021
Effective Date: 04/01/2016
Days to Expiration: -533

398
West
1/2-1
0.738 mi.
3896 ft.

SHULTZ DISTRIBUTING SNOQUALMIE
9120 BOALCH AVE SE
SNOQUALMIE, WA 98065

WA CSCSL **S105152421**
WA LUST **N/A**
WA ALLSITES

Actual:
424 ft.
Focus Map:
7

CSCSL:
Name: SHULTZ DISTRIBUTING SNOQUALMIE
Address: 9120 BOALCH AVE SE
City,State,Zip: SNOQUALMIE, WA 98065
Facility ID: 2449
Region: Northwest
Lat/Long: 47.51886 / -121.79975
Clean Up Siteid: 3277
Site Status: Awaiting Cleanup
Contaminant Name: Petroleum Products-Unspecified
Alternate Site Names: Schultz Distributing Inc
Site Rank: Not reported
Has Institutional Control: Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Suspected
Soil: Suspected
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

Name: SHULTZ DISTRIBUTING
Address: 9120 BOALCH AVE SE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHULTZ DISTRIBUTING SNOQUALMIE (Continued)

S105152421

City,State,Zip: SNOQUALMIE, WA 98065
Facility ID: 51367681
Region: Northwest
Lat/Long: 47.518815699625 / -121.7999176566
Clean Up Siteid: 11908
Site Status: Awaiting Cleanup
Contaminant Name: Petroleum-Diesel
Alternate Site Names: SHULTZ DISTRIBUTING INC,SHULTZ DISTRIBUTING INC UST 10211
Site Rank: Not reported
Has Institutional Control: Not reported
Past VCP: Not reported
Current VCP: Not reported
Ground Water: Not reported
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Northwest

LUST:

Name: SHULTZ DISTRIBUTING
Address: 9120 BOALCH AVE SE
City,State,Zip: SNOQUALMIE, WA 98065
Facility ID: 51367681
Lust Status Type: LUST - Awaiting Cleanup
Cleanup Site ID: 11908
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: SHULTZ DISTRIBUTING INC,SHULTZ DISTRIBUTING INC UST 10211
Response Section: Northwest
Release Date: 05/05/2011
Lust Date: 07/20/2010
Region: Northwest
Lust ID: 6623
UST ID: 10211
Contaminant Name: Petroleum-Diesel
Ground Water: Not reported
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.5188156 / -121.79991

ALLSITES:

Name: SHULTZ DISTRIBUTING INC UST 10211
Facility Id: 51367681

Interaction: 48629
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 10211

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHULTZ DISTRIBUTING SNOQUALMIE (Continued)

S105152421

Date Interaction: 1975-01-01 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.518809531000002
Longitude: -121.79992087799999

Interaction: 102081
Interaction 1: A
Interaction 2: INDPNDNT
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Shultz Distributing
Program ID: Not reported
Date Interaction: 2012-07-09 00:00:00
Date Interaction 3: Independent Cleanup
Latitude: 47.518809531000002
Longitude: -121.79992087799999

Interaction: 102109
Interaction 1: A
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: SHULTZ DISTRIBUTING INC UST 10211
Program ID: 10211
Date Interaction: 2012-07-09 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.518809531000002
Longitude: -121.79992087799999

Name: SHULTZ DISTRIBUTING SNOQUALMIE
Facility Id: 2449

Interaction: 4489
Interaction 1: A
Interaction 2: INDPNDNT
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: SHULTZ DISTRIBUTING SNOQUALMIE
Program ID: Not reported
Date Interaction: 1900-01-01 00:00:00
Date Interaction 3: Independent Cleanup
Latitude: 47.518855645999999
Longitude: -121.79971963600001

Interaction: 4486
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAD980739346
Date Interaction: 1985-05-12 00:00:00
Date Interaction 3: Hazardous Waste Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHULTZ DISTRIBUTING SNOQUALMIE (Continued)**S105152421**

Latitude: 47.518855645999999
Longitude: -121.79971963600001

Interaction: 4487
Interaction 1: I
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Not reported
Program ID: CRK000023390
Date Interaction: 1990-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.518855645999999
Longitude: -121.79971963600001

City	EDR ID	Site Name	Site Address	Zip	Database(s)
KING COUNTY	2015125728		1600 BLOCK OF SW SEAHURST PARK RD		ERNS
KING COUNTY	8854991		DUWAMISH RIVER, SOUTH PARK DELTA MARINE		ERNS
KING COUNTY	S118402041	RABANCO LTD./DBA: EASTSIDE DISPOSAL, DBA: SEA-TAC DISPOSAL	200 112TH AVE NE STE 300		WA SWF/LF
KING COUNTY	S106082841		WHITE FLEETWOOD WILDERNESS 5TH WHEEL	0	WA HIST CDL
KING COUNTY	S106082844		FLEETWOOD WILDERNESS 5TH WHEEL, WHITE	0	WA HIST CDL
KING COUNTY	S106782504		FALL CITY ORCHARD TRS PP		WA HIST CDL
NORTH BEND	1014202510	USDA FS MT. BAKER-SNOQUALMIE NF: RAINY MINE & MILL SITE	FS RD 5640, 12 MI NE OF NORTH BEND, T24N R10E SEC 9 & 16, WILLAMETTE MERIDIAN	98045	SEMS-ARCHIVE, DOCKET HWC
NORTH BEND	2015112790		EXIT 38 ON I-90 & FORREST SERVICE RD 902		ERNS
NORTH BEND	2017172783		1 MILE WEST OF I-90		ERNS
NORTH BEND	2018209300		1130 EAST NORTH BEND WAY	98045	ERNS
NORTH BEND	8722567		NORTH BEND SEWAGE TREATMENT		ERNS
NORTH BEND	S105454224	UNOCAL #2237 (FORMER)	330 & 354 E. NORTH BEND WAY	98045	WA ICR
NORTH BEND	S124435853	UNOCAL 2237	330 & 354 E NORTH BEND WAY	98045	WA VCP
NORTH BEND	S125234370	I90 NORTH BEND CORPORATE PARK 468TH	468TH AVE SE BW SE 140TH SE N BEND WAY	98045	WA ALLSITES
NORTH BEND	S125234660	PARK AND RIDE & STREET IMPROV PROJECT	NORTH BEND WAY SYDNEY AVE N	98045	WA ALLSITES
NORTH BEND	S106782667		W RIBARY WAY	0	WA HIST CDL
NORTH BEND	S106782666		NW R.V. PARK, #9B, 45810 SE NORTH BEND WAY,		WA HIST CDL
NORTH BEND	S123402771	US BAKERY DIESEL SPILL	EB I-90 MP 46	98045	WA CSCSL NFA
NORTH BEND	S110816972		SE LAKE DOROTHY RD/NF-56		WA SPILLS
NORTH BEND	S109876272	UNKNOWN	SE 146TH AND 468TH AVE SE, NORTHBEND		WA SPILLS
NORTH BEND	S111415440		468TH AVE SE & 144TH ST		WA SPILLS
NORTH BEND	S110066732		I-90 @ MILE POST 45		WA SPILLS
NORTH BEND	S110337020	BIO GLO	EASTBOUND I-90		WA SPILLS
NORTH BEND	S110336738	CHAMP SVCS LLC	EB I-90 MP 34		WA SPILLS
NORTH BEND	S117367845		I-90 & MILE POST 38		WA SPILLS
NORTH BEND	S117896173		I-90		WA SPILLS
NORTH BEND	S105686441		17600 BLOCK, CEDAR FALLS RD		WA SPILLS
NORTH BEND	S105384753	COKAMAR TRUCKING	17800 BLOCK OF CEDAR FALLS RD		WA SPILLS
NORTH BEND	S105388691	SILVERSTREAK INC	468 SE NEAR MIDDLE FORK		WA SPILLS
NORTH BEND	S110628301	KING COUNTY	MIDDLE FORK RD		WA SPILLS
NORTH BEND	S111028179		WB I-90 MILEPOST 31 1/2		WA SPILLS
NORTH BEND	S105464551		719 CEDAR AVE		WA SPILLS
NORTH BEND	S117895903		700 S FORK AVE SW		WA SPILLS
NORTH BEND	S111414384		I-90 & HWY 18		WA SPILLS
NORTH BEND	S111415188	UNKNOWN	WB I-90 MP 34 ON LEFT SHOULDER		WA SPILLS
NORTH BEND	S111415288	JJ SAUTER INC	EB I-90 EXIT 38		WA SPILLS
NORTH BEND	S118641595		CEDAR VIEW TRAIL HEAD		WA SPILLS
NORTH BEND	S118402504		CEDAR RIVER WATERSHED		WA SPILLS
NORTH BEND	S118758320		WA I-90 EXIT 42		WA SPILLS
NORTH BEND	S109010723	CITY OF NORTH BEND	4000 BENDIGO		WA SPILLS
NORTH BEND	S116363000		I-90 MILE POST 36		WA SPILLS

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NORTH BEND	S108673936	UNKNOWN	447TH NEAR "RIVER BEND" SIGN		WA SPILLS
NORTH BEND	S113888424		I-90 MILE POST 52		WA SPILLS
NORTH BEND	S109865354	NORTHERN ROUTES TRANSPORTATION, INC.	EASTBOUND I-90, WEST OF MILE POST 48		WA SPILLS
NORTH BEND	S109865366	WERNER	WESTBOUND I-90, WEST OF EXIT 31		WA SPILLS
NORTH BEND	S109865696		DOROTHY LAKE RD & MIDDLE FORK RD		WA SPILLS
NORTH BEND	S109865924	ASSOCIATED GROCERS	I-90 MILE POST 29.5		WA SPILLS
NORTH BEND	S109866118	GOLDEN STATE FOODS	EASTBOUND I-90, MILE POST 48		WA SPILLS
NORTH BEND	S109866216	TRUCKING	EAST BOUND I-90, MILE POST 48 (WA SPILLS
NORTH BEND	S109866247	EDGEWICK VILLAGE GAS AND DELI	EXIT 34, I-90		WA SPILLS
NORTH BEND	S109883856	BARKER ENTERPRISES	MP 42 ON MEDIAN OF I-90		WA SPILLS
NORTH BEND	S109885562		WESTBOUND I-90 AROUND THE 28 MILEPOST		WA SPILLS
NORTH BEND	S109885643	SWIFT TRANSPORTATION	I-90, MILE MARKER 28 WESTBOUND		WA SPILLS
NORTH BEND	S109888930	USF REDDAWAY	I-90 & SR 18		WA SPILLS
NORTH BEND	S109885802		I-90, EXIT 34		WA SPILLS
NORTH BEND	S109881070	UNKNOWN	EXIT 42 OFF I-90, GO		WA SPILLS
NORTH BEND	S109887697		MILE OF HWY 18 ON I-90		WA SPILLS
NORTH BEND	S109876875	UNKNOWN	NEAR I-90 EXIT 42		WA SPILLS
NORTH BEND	S109881349	UNKNOWN / AUTO THIEF	MIDDLE FORK ROAD		WA SPILLS
NORTH BEND	S109881515	UNKNOWN	BY BEND AREA AIR FIELD		WA SPILLS
NORTH BEND	S109884991		SOUTH OF I-18 & I-90		WA SPILLS
NORTH BEND	S109891363		WB I-90, MP 25		WA SPILLS
NORTH BEND	S109891383		I-90 MP 47		WA SPILLS
NORTH BEND	S109891387		I-90, EXIT 31		WA SPILLS
NORTH BEND	S109883489		I-90 WESTBOUND MP 29		WA SPILLS
NORTH BEND	S109888483		MIDDLE FORK RD		WA SPILLS
NORTH BEND	S109882011	UNKNOWN	I-90, MILEPOST 36.5, EASTBOUND		WA SPILLS
NORTH BEND	S109888663		CEDAR RIVER WATERSHED		WA SPILLS
NORTH BEND	S109893705	BTI TRANSPORTAION LTD	I-90		WA SPILLS
NORTH BEND	S109892110		WB I-90 MP 45		WA SPILLS
NORTH BEND	S109895532		I-90, EXIT 38		WA SPILLS
NORTH BEND	S109895564		I-90 EXIT 42		WA SPILLS
NORTH BEND	S114472497	UNK	EAST BOUND I-90 MP 31		WA SPILLS
NORTH BEND	S113707032		EAST BOUND I-90 @ MILE POST 30		WA SPILLS
NORTH BEND	S113707033	SILVER BULLET EXPRESS	I-90		WA SPILLS
NORTH BEND	S113707836		I-90 EASTBOUND		WA SPILLS
NORTH BEND	S122368842		I-90 MP 32 & 34		WA SPILLS
NORTH BEND	S118641585		NORTH BEND FIRE TRAINING ACADEMY		WA SPILLS
NORTH BEND	S108674014	UNK	5 MI SE OF NORTH BEND, EXIT 38 OFF I-90.		WA SPILLS
NORTH BEND	S109893718		SE TANNER RD & NORTH BEND RD		WA SPILLS
NORTH BEND	S109895373	EVERGREEN	MOUNT SI RD NEAR 488TH AVE SE		WA SPILLS
NORTH BEND	S116363019	PSE	MOON VALLEY RD		WA SPILLS
NORTH BEND	1018282559	SEATTLE CITY LIGHT CEDAR FALLS BRIDGE	CEDAR FALLS WATERSHED RD #102	98045	RCRA NonGen / NLR
NORTH BEND	1000706842	OLYMPUS JOB 91 3593	S SIDE 101ST ST 1 BLK E OF	98045	RCRA NonGen / NLR
NORTH BEND	1014850636	ULID NO 6 SEWER PIPE INSTALL	468TH AVE	98045	FINDS
NORTH BEND	1024010281	RIVER BEND HOMEOWNERS ASSOC WATER SYSTEI	448TH AVE SE	98045	FINDS, ECHO
NORTH BEND	1016261495	NORTH BEND TRUCK STOP	NE COR OF SE 146TH ST & 468TH	98045	FINDS, ECHO
NORTH BEND	1012266590	DUMP SITE	444TH AVE SE	98045	FINDS

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NORTH BEND	1015939192	SYSTEM TRANSPORT DIESEL SPILL 468TH AVE SE	NWC 468TH AVE SE & SE 144TH	98045	FINDS
NORTH BEND	1023642150	MIDDLE FORK SNOQUALMIE RIVER ROAD	MIDDLE FORK ROAD MILEPOST 2.7 TO 12.4	98045	FINDS, ECHO
NORTH BEND	1023640173	MIDDLE FORK SNOQUALMIE RIVER ROAD SLOPE STABILIZATION	SE MIDDLE FORK ROAD, SE LAKE DOROTHY ROAD	98045	FINDS
NORTH BEND	1025445930	I90 NORTH BEND CORPORATE PARK 468TH	468TH AVE SE BW SE 140TH SE N BEND WAY	98045	FINDS
NORTH BEND	1025450518	US BAKERY DIESEL SPILL	EB I-90 MP 46	98045	FINDS
NORTH BEND	1012224537	PARK AND RIDE	NORTH BEND WAY/SYDNEY	98045	FINDS
NORTH BEND	1008030435	THE MEADOWS WATER SYSTEM	SE NORTH BEND WAY	98045	FINDS, ECHO
NORTH BEND	1022994181	MIDDLE FORK SNOQUALMIE RIVER ROAD SLOPE STABILIZATION	SE MIDDLE FORK ROAD, SE LAKE DOROTHY ROAD	98045	ECHO
NORTH BEND	S121511940		885 SE CEDAR FALLS WAY LIVING AREA	98045	WA ASBESTOS
NORTH BEND	S124428042		26925 SE MIDDLE FORK ROAD		WA ASBESTOS
NORTH BEND	S125595014		208, 216, 232, 240, 248 BENDIGO BOULEVARD N/A		WA ASBESTOS
NORTH BEND	S125588287		1102 428TH AVE SE UTILITY RM, KITCHEN, NE BATH, DEN, N CENTER BDRM		WA ASBESTOS
NORTH BEND	S125588211		11002 428TH AVE SE UTILITY RM, KITCHEN, NE BATH, DEN, N CENTER BDRM		WA ASBESTOS
NORTH BEND	S123449840	YOUNG CORPORATION LOT X NORTH BEND	468TH AVE SE BW SE 140TH SE N BEND WAY	98045	WA NPDES
NORTH BEND	S125196967	TANNER HEADQUARTERS	45715 SE 140TH	98045	WA UIC
SNOQUALMIE	S103508733	PUGET SOUND POWER & LIGHT	FALL CITY/SNOQUALMIE ROAD	98065	WA ICR
SNOQUALMIE	S117367807		I-90		WA SPILLS
SNOQUALMIE	S117896028		I-90 & EXIT 38		WA SPILLS
SNOQUALMIE	S110689201		WESTBOUND I-90		WA SPILLS
SNOQUALMIE	S110816814	UNK	WB I-90 MP 50		WA SPILLS
SNOQUALMIE	S112339322		I-90		WA SPILLS
SNOQUALMIE	S112339370	KOCH TRUCKING	I-90 EAST EXIT 61 IN SNOQUALMIE		WA SPILLS
SNOQUALMIE	S116363670	ANGEL GARZA TRUCKING COMPANY	I-90 @ MILE POST 49		WA SPILLS
SNOQUALMIE	S117054812		W I-90 & SR 18		WA SPILLS
SNOQUALMIE	S109865237	FISCUS MOTOR FREIGHT	WEST-BOUND I-90, MILE POST		WA SPILLS
SNOQUALMIE	S109865452		I-90 EAST BOUND; MP 27 & 28		WA SPILLS
SNOQUALMIE	S109865454	OAK HARBOR FREIGHT	WESTBOUND I-90 AT MP 50		WA SPILLS
SNOQUALMIE	S109865509	WERNER ENTERPRISES	WB I-90 MP 29		WA SPILLS
SNOQUALMIE	S109865540	TRUCKING CO	I-90 AT MILEPOST 51 UP TO SUMMIT		WA SPILLS
SNOQUALMIE	S109865597	KIEWIT PACIFIC	EXIT 47 I-90 DENNY CREEK		WA SPILLS
SNOQUALMIE	S109865600	KING CO DNR	MEADOW BROOK WAY		WA SPILLS
SNOQUALMIE	S109872230	UNKNOWN	I-90 EXIT 52, WESTBOUND		WA SPILLS
SNOQUALMIE	S109880871	NONE	OUTSIDE OF MT SI GOLF COURSE		WA SPILLS
SNOQUALMIE	S109884254	UNKNOWN	EASTBOUND I-90, MP 147 CHAINUP AREA		WA SPILLS
SNOQUALMIE	S109884412		WESTBOUND I-90, MP 51.5		WA SPILLS
SNOQUALMIE	S109878321	UNKNOWN	STATE PARK		WA SPILLS
SNOQUALMIE	S109886333		WEST BOUND I-90 AT MP 52		WA SPILLS
SNOQUALMIE	S109877339	UNKNOWN	EXIT 54 ON I-90		WA SPILLS
SNOQUALMIE	S109883418		I-90 AT EXIT 42, TO TINKHAM RD,		WA SPILLS
SNOQUALMIE	S109889957		W.B. I-90 AT W.B. HWY 18		WA SPILLS
SNOQUALMIE	S109895218	MILKY WAY LYNDEN TRANSPORT	I-90 EASTBOUND MP 50		WA SPILLS
SNOQUALMIE	S109892248		SR18 & I-90 MP29		WA SPILLS
SNOQUALMIE	S109893870		EASTBOUND I-90 AT EXIT 42		WA SPILLS

Count: 139 records

ORPHAN SUMMARY

Attachment A

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SNOQUALMIE	S113707630		I-90		WA SPILLS
SNOQUALMIE	S122368910		I-90 WB @ MP 51		WA SPILLS
SNOQUALMIE	1014627908	SOUTH OF I-90 BETWEEN EXITS 37 & 38	SOUTH OF I-90 BETWEEN EXITS 37 & 38	98065	PCB TRANSFORMER
SNOQUALMIE	1016705252	SE NORTH BEND WAY ROUNDABOUT	I90 EXIT 27 N OF NORTH BEND WAY	98065	FINDS
SNOQUALMIE	1012311049	HABITAT FOR HUMANITY OF E KING CO	SNOQUALMIE PARKWAY & ORCHARD	98065	FINDS
SNOQUALMIE	1024608109	CALLIGAN CREEK HYDROELECTRIC PROJECT	48200 SE 3RD ST	98065	FINDS
SNOQUALMIE	S125443305		SCHUSMAN AVE FROM SE PARK TO SE EPSILON		WA ASBESTOS
SNOQUALMIE	S125608750		SE REMOND-FALL CITY ROAD, HWY 202		WA ASBESTOS

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 01/30/2020	Source: EPA
Date Data Arrived at EDR: 02/05/2020	Telephone: N/A
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 03/04/2020
Number of Days to Update: 9	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 01/30/2020	Source: EPA
Date Data Arrived at EDR: 02/05/2020	Telephone: N/A
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 03/04/2020
Number of Days to Update: 9	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
 Date Data Arrived at EDR: 02/02/1994
 Date Made Active in Reports: 03/30/1994
 Number of Days to Update: 56

Source: EPA
 Telephone: 202-564-4267
 Last EDR Contact: 08/15/2011
 Next Scheduled EDR Contact: 11/28/2011
 Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 01/30/2020
 Date Data Arrived at EDR: 02/05/2020
 Date Made Active in Reports: 02/14/2020
 Number of Days to Update: 9

Source: EPA
 Telephone: N/A
 Last EDR Contact: 03/04/2020
 Next Scheduled EDR Contact: 04/13/2020
 Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
 Date Data Arrived at EDR: 04/05/2019
 Date Made Active in Reports: 05/14/2019
 Number of Days to Update: 39

Source: Environmental Protection Agency
 Telephone: 703-603-8704
 Last EDR Contact: 04/05/2019
 Next Scheduled EDR Contact: 04/13/2020
 Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/30/2020
 Date Data Arrived at EDR: 02/05/2020
 Date Made Active in Reports: 02/14/2020
 Number of Days to Update: 9

Source: EPA
 Telephone: 800-424-9346
 Last EDR Contact: 02/05/2020
 Next Scheduled EDR Contact: 04/27/2020
 Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 01/30/2020	Source: EPA
Date Data Arrived at EDR: 02/05/2020	Telephone: 800-424-9346
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 03/04/2020
Number of Days to Update: 9	Next Scheduled EDR Contact: 04/27/2020
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/16/2019	Source: EPA
Date Data Arrived at EDR: 12/16/2019	Telephone: 800-424-9346
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 02/27/2020
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: (206) 553-1200
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 02/27/2020
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: (206) 553-1200
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 02/27/2020
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: (206) 553-1200
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 02/27/2020
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: (206) 553-1200
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 02/27/2020
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 11/04/2019	Source: Department of the Navy
Date Data Arrived at EDR: 11/13/2019	Telephone: 843-820-7326
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 02/10/2020
Number of Days to Update: 76	Next Scheduled EDR Contact: 05/25/2020
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/22/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/22/2019	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 02/20/2020
Number of Days to Update: 67	Next Scheduled EDR Contact: 06/08/2020
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/22/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/22/2019	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 02/20/2020
Number of Days to Update: 67	Next Scheduled EDR Contact: 06/08/2020
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 14

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

HSL: Hazardous Sites List

The Hazardous Sites List is a subset of the CSCSL Report. It includes sites which have been assessed and ranked using the Washington Ranking Method (WARM).

Date of Government Version: 08/28/2019
Date Data Arrived at EDR: 09/06/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 24

Source: Department of Ecology
Telephone: 360-407-7200
Last EDR Contact: 03/02/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Semi-Annually

State- and tribal - equivalent CERCLIS

CSCSL: Confirmed and Suspected Contaminated Sites List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 10/17/2019
Date Made Active in Reports: 12/13/2019
Number of Days to Update: 57

Source: Department of Ecology
Telephone: 360-407-7200
Last EDR Contact: 01/15/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facility Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 12/04/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/13/2020
Number of Days to Update: 70

Source: Department of Ecology
Telephone: 360-407-6132
Last EDR Contact: 03/02/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tanks Site List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 11/11/2019
Date Data Arrived at EDR: 11/13/2019
Date Made Active in Reports: 01/13/2020
Number of Days to Update: 61

Source: Department of Ecology
Telephone: 360-407-7183
Last EDR Contact: 02/12/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/04/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/04/2019	Telephone: 415-972-3372
Date Made Active in Reports: 02/27/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/11/2019	Source: EPA Region 10
Date Data Arrived at EDR: 12/04/2019	Telephone: 206-553-2857
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2019	Source: EPA Region 1
Date Data Arrived at EDR: 12/04/2019	Telephone: 617-918-1313
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/02/2019	Source: EPA Region 6
Date Data Arrived at EDR: 12/04/2019	Telephone: 214-665-6597
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/01/2019	Source: EPA, Region 5
Date Data Arrived at EDR: 12/04/2019	Telephone: 312-886-7439
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/15/2019	Source: EPA Region 7
Date Data Arrived at EDR: 12/17/2019	Telephone: 913-551-7003
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 12/16/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/03/2019	Source: EPA Region 8
Date Data Arrived at EDR: 12/04/2019	Telephone: 303-312-6271
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 72	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/10/2019	Source: EPA Region 4
Date Data Arrived at EDR: 12/05/2019	Telephone: 404-562-8677
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 67	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/27/2019	Source: FEMA
Date Data Arrived at EDR: 08/28/2019	Telephone: 202-646-5797
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 01/21/2020
Number of Days to Update: 75	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: Varies

UST: Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 11/11/2019	Source: Department of Ecology
Date Data Arrived at EDR: 11/13/2019	Telephone: 360-407-7183
Date Made Active in Reports: 01/13/2020	Last EDR Contact: 08/14/2020
Number of Days to Update: 61	Next Scheduled EDR Contact: 05/25/2020
	Data Release Frequency: Quarterly

AST: Aboveground Storage Tank Locations

A listing of aboveground storage tank locations regulated by the Department of Ecology's Spill Prevention, Preparedness and Response Program.

Date of Government Version: 12/14/2015	Source: Department of Ecology
Date Data Arrived at EDR: 02/02/2016	Telephone: 360-407-7562
Date Made Active in Reports: 05/03/2016	Last EDR Contact: 01/27/2020
Number of Days to Update: 91	Next Scheduled EDR Contact: 05/11/2020
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/03/2019	Source: EPA Region 8
Date Data Arrived at EDR: 12/04/2019	Telephone: 303-312-6137
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 72	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2019	Source: EPA, Region 1
Date Data Arrived at EDR: 12/04/2019	Telephone: 617-918-1313
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/11/2019	Source: EPA Region 10
Date Data Arrived at EDR: 12/04/2019	Telephone: 206-553-2857
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/02/2019	Source: EPA Region 6
Date Data Arrived at EDR: 12/04/2019	Telephone: 214-665-7591
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/04/2019	Source: EPA Region 9
Date Data Arrived at EDR: 12/04/2019	Telephone: 415-972-3368
Date Made Active in Reports: 02/27/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/01/2019	Source: EPA Region 5
Date Data Arrived at EDR: 12/04/2019	Telephone: 312-886-6136
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations).

Date of Government Version: 10/10/2019	Source: EPA Region 4
Date Data Arrived at EDR: 12/05/2019	Telephone: 404-562-9424
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 67	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/11/2019	Source: EPA Region 7
Date Data Arrived at EDR: 12/04/2019	Telephone: 913-551-7003
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

INST CONTROL: Institutional Control Site List

Sites that have institutional controls.

Date of Government Version: 10/15/2019	Source: Department of Ecology
Date Data Arrived at EDR: 10/17/2019	Telephone: 360-407-7170
Date Made Active in Reports: 12/27/2019	Last EDR Contact: 01/15/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 04/27/2020
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 12/17/2019
Number of Days to Update: 142	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Varies

ICR: Independent Cleanup Reports

These are remedial action reports Ecology has received from either the owner or operator of the sites. These actions have been conducted without department oversight or approval and are not under an order or decree. This database is no longer updated by the Department of Ecology.

Date of Government Version: 12/01/2002	Source: Department of Ecology
Date Data Arrived at EDR: 01/03/2003	Telephone: 360-407-7200
Date Made Active in Reports: 01/22/2003	Last EDR Contact: 08/10/2009
Number of Days to Update: 19	Next Scheduled EDR Contact: 11/09/2009
	Data Release Frequency: No Update Planned

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Sites

Sites that have entered either the Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.

Date of Government Version: 10/15/2019	Source: Department of Ecology
Date Data Arrived at EDR: 10/17/2019	Telephone: 360-407-7200
Date Made Active in Reports: 12/27/2019	Last EDR Contact: 01/15/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 04/27/2020
	Data Release Frequency: Varies

PTAP: PTAP Site Listing

A list of sites accepted into the Petroleum Technical Assistance Program. The Petroleum Technical Assistance Program (PTAP) expands the state's ability to respond to the high customer demand to clean up petroleum contaminated sites. Under the PTAP, the Pollution Liability Insurance Agency (PLIA) may provide informal site-specific technical consultations and issue written opinion letters to persons conducting independent remedial actions at qualifying petroleum cleanup sites. PLIA may provide these services under the authority of RCW 70.149.040(9) and the Model Toxics Control Act (MTCA), Chapter 70.149 RCW and Chapter 173-340 WAC.

Date of Government Version: 11/11/2019
 Date Data Arrived at EDR: 11/13/2019
 Date Made Active in Reports: 01/13/2020
 Number of Days to Update: 61

Source: Department of Ecology
 Telephone: 360-407-0515
 Last EDR Contact: 02/12/2020
 Next Scheduled EDR Contact: 05/25/2020
 Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Sites Listing

A listing of brownfields sites included in the Confirmed & Suspected Sites Listing. Brownfields are abandoned, idle or underused commercial or industrial properties, where the expansion or redevelopment is hindered by real or perceived contamination. Brownfields vary in size, location, age, and past use -- they can be anything from a five-hundred acre automobile assembly plant to a small, abandoned corner gas station.

Date of Government Version: 10/15/2019
 Date Data Arrived at EDR: 10/17/2019
 Date Made Active in Reports: 12/13/2019
 Number of Days to Update: 57

Source: Department of Ecology
 Telephone: 360-725-4030
 Last EDR Contact: 01/15/2020
 Next Scheduled EDR Contact: 04/27/2020
 Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/03/2019
 Date Data Arrived at EDR: 06/04/2019
 Date Made Active in Reports: 08/26/2019
 Number of Days to Update: 83

Source: Environmental Protection Agency
 Telephone: 202-566-2777
 Last EDR Contact: 12/16/2019
 Next Scheduled EDR Contact: 03/30/2020
 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facility List

A listing of recycling center locations.

Date of Government Version: 07/23/2019
 Date Data Arrived at EDR: 08/02/2019
 Date Made Active in Reports: 10/03/2019
 Number of Days to Update: 62

Source: Department of Ecology
 Telephone: 360-407-6105
 Last EDR Contact: 01/21/2020
 Next Scheduled EDR Contact: 05/04/2020
 Data Release Frequency: Varies

SWTIRE 2: Solid Waste Tire Facilities 2

solid waste tire piles

Date of Government Version: 12/06/2019
 Date Data Arrived at EDR: 12/09/2019
 Date Made Active in Reports: 02/13/2020
 Number of Days to Update: 66

Source: Department of Ecology
 Telephone: 425-649-7104
 Last EDR Contact: 03/02/2020
 Next Scheduled EDR Contact: 06/15/2020
 Data Release Frequency: Varies

SWTIRE: Solid Waste Tire Facilities

This study identified sites statewide with unauthorized accumulations of scrap tires.

Date of Government Version: 11/01/2005	Source: Department of Ecology
Date Data Arrived at EDR: 03/16/2006	Telephone: N/A
Date Made Active in Reports: 04/13/2006	Last EDR Contact: 09/08/2017
Number of Days to Update: 28	Next Scheduled EDR Contact: 12/18/2017
	Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 01/27/2020
Number of Days to Update: 52	Next Scheduled EDR Contact: 05/11/2020
	Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 01/17/2020
Number of Days to Update: 137	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014	Source: Department of Health & Human Services, Indian Health Service
Date Data Arrived at EDR: 08/06/2014	Telephone: 301-443-1452
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 01/31/2020
Number of Days to Update: 176	Next Scheduled EDR Contact: 05/11/2020
	Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 06/13/2019	Telephone: 202-307-1000
Date Made Active in Reports: 09/03/2019	Last EDR Contact: 02/21/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 06/08/2020
	Data Release Frequency: No Update Planned

ALLSITES: Facility/Site Identification System Listing

Information on facilities and sites of interest to the Department of Ecology.

Date of Government Version: 10/29/2019	Source: Department of Ecology
Date Data Arrived at EDR: 10/30/2019	Telephone: 360-407-6423
Date Made Active in Reports: 01/13/2020	Last EDR Contact: 01/28/2020
Number of Days to Update: 75	Next Scheduled EDR Contact: 05/11/2020
	Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Contaminated Site List

Illegal methamphetamine labs use hazardous chemicals that create public health hazards. Chemicals and residues can cause burns, respiratory and neurological damage, and death. Biological hazards associated with intravenous needles, feces, and blood also pose health risks.

Date of Government Version: 11/04/2019	Source: Department of Health
Date Data Arrived at EDR: 11/05/2019	Telephone: 360-236-3380
Date Made Active in Reports: 01/13/2020	Last EDR Contact: 02/03/2020
Number of Days to Update: 69	Next Scheduled EDR Contact: 05/18/2020
	Data Release Frequency: Varies

HIST CDL: List of Sites Contaminated by Clandestine Drug Labs

This listing of contaminated sites by Clandestine Drug Labs includes non-remediated properties. The current CDL listing does not. This listing is no longer updated by the state agency.

Date of Government Version: 02/08/2007	Source: Department of Health
Date Data Arrived at EDR: 06/26/2007	Telephone: 360-236-3381
Date Made Active in Reports: 07/19/2007	Last EDR Contact: 06/02/2008
Number of Days to Update: 23	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

CSCSL NFA: Confirmed and Contaminated Sites - No Further Action

This report contains information about sites that are undergoing cleanup and sites that are awaiting further investigation and/or cleanup. Sites on the Hazardous Sites List (see above) are included in this data set.

Date of Government Version: 10/15/2019	Source: Department of Ecology
Date Data Arrived at EDR: 10/17/2019	Telephone: 360-407-7170
Date Made Active in Reports: 12/27/2019	Last EDR Contact: 01/15/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 04/27/2020
	Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 06/13/2019	Telephone: 202-307-1000
Date Made Active in Reports: 09/03/2019	Last EDR Contact: 02/21/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 06/08/2020
	Data Release Frequency: Quarterly

AQUEOUS FOAM: Firefighting Foam Incidents

-> Description here.

Date of Government Version: 01/07/2020	Source: -> Agency name here.
Date Data Arrived at EDR: 01/09/2020	Telephone: -> Phone here.
Date Made Active in Reports: 02/06/2020	Last EDR Contact: 01/06/2020
Number of Days to Update: 28	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: Varies

PFAS: PFAS Contamination Site Location Listing

PFOS and PFOA stand for perfluorooctane sulfonate and perfluorooctanoic acid, respectively. Both are fluorinated organic chemicals, part of a larger family of compounds referred to as perfluoroalkyl substances (PFASs).

Date of Government Version: 10/09/2019	Source: Department of Ecology
Date Data Arrived at EDR: 10/10/2019	Telephone: 360-407-6116
Date Made Active in Reports: 12/13/2019	Last EDR Contact: 01/06/2020
Number of Days to Update: 64	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: Varies

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 01/30/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/05/2020	Telephone: 202-564-6023
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 02/05/2020
Number of Days to Update: 9	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/05/2019	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 12/06/2019	Telephone: 202-366-4555
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 12/06/2019
Number of Days to Update: 70	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

SPILLS: Reported Spills

Spills reported to the Spill Prevention, Preparedness and Response Division.

Date of Government Version: 12/05/2019	Source: Department of Ecology
Date Data Arrived at EDR: 12/09/2019	Telephone: 360-407-6950
Date Made Active in Reports: 02/13/2020	Last EDR Contact: 03/02/2020
Number of Days to Update: 66	Next Scheduled EDR Contact: 06/15/2020
	Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 05/23/2006	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 03/06/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Attachment A

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/16/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 11/12/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 70

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/19/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/10/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/09/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/13/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/19/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 02/03/2020
Number of Days to Update: 88	Next Scheduled EDR Contact: 05/18/2020
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 02/07/2020
Number of Days to Update: 73	Next Scheduled EDR Contact: 05/18/2020
	Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/21/2017	Telephone: 202-260-5521
Date Made Active in Reports: 01/05/2018	Last EDR Contact: 12/20/2019
Number of Days to Update: 198	Next Scheduled EDR Contact: 03/30/2020
	Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2017	Source: EPA
Date Data Arrived at EDR: 11/16/2018	Telephone: 202-566-0250
Date Made Active in Reports: 11/21/2019	Last EDR Contact: 02/05/2020
Number of Days to Update: 370	Next Scheduled EDR Contact: 06/01/2020
	Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 05/01/2019	Source: EPA
Date Data Arrived at EDR: 10/23/2019	Telephone: 202-564-4203
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/30/2020	Source: EPA
Date Data Arrived at EDR: 02/05/2020	Telephone: 703-416-0223
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 03/04/2020
Number of Days to Update: 9	Next Scheduled EDR Contact: 06/15/2020
	Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/02/2019	Telephone: 202-564-8600
Date Made Active in Reports: 05/23/2019	Last EDR Contact: 01/21/2020
Number of Days to Update: 21	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 01/30/2020	Source: EPA
Date Data Arrived at EDR: 02/06/2020	Telephone: 202-564-6023
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 03/04/2020
Number of Days to Update: 8	Next Scheduled EDR Contact: 05/18/2020
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019	Source: EPA
Date Data Arrived at EDR: 10/11/2019	Telephone: 202-566-0500
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 01/10/2020
Number of Days to Update: 70	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 01/06/2020
Number of Days to Update: 79	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 10/25/2019	Telephone: 301-415-7169
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 01/21/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018	Source: Department of Energy
Date Data Arrived at EDR: 12/04/2019	Telephone: 202-586-8719
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 12/04/2019
Number of Days to Update: 42	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 02/27/2020
Number of Days to Update: 251	Next Scheduled EDR Contact: 06/15/2020
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 02/07/2020
Number of Days to Update: 96	Next Scheduled EDR Contact: 05/18/2020
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 12/20/2019
Number of Days to Update: 84	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/01/2019	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 10/29/2019	Telephone: 202-366-4595
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 01/28/2020
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/11/2020
	Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Attachment A

Date of Government Version: 09/30/2019
Date Data Arrived at EDR: 10/09/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 72

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/27/2020
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 03/04/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
 Date Data Arrived at EDR: 10/27/2010
 Date Made Active in Reports: 12/02/2010
 Number of Days to Update: 36

Source: American Journal of Public Health
 Telephone: 703-305-6451
 Last EDR Contact: 12/02/2009
 Next Scheduled EDR Contact: N/A
 Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
 Date Data Arrived at EDR: 10/26/2016
 Date Made Active in Reports: 02/03/2017
 Number of Days to Update: 100

Source: EPA
 Telephone: 202-564-2496
 Last EDR Contact: 09/26/2017
 Next Scheduled EDR Contact: 01/08/2018
 Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
 Date Data Arrived at EDR: 10/26/2016
 Date Made Active in Reports: 02/03/2017
 Number of Days to Update: 100

Source: EPA
 Telephone: 202-564-2496
 Last EDR Contact: 09/26/2017
 Next Scheduled EDR Contact: 01/08/2018
 Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 12/03/2019
 Date Data Arrived at EDR: 12/03/2019
 Date Made Active in Reports: 01/28/2020
 Number of Days to Update: 56

Source: DOL, Mine Safety & Health Admi
 Telephone: 202-693-9424
 Last EDR Contact: 03/02/2020
 Next Scheduled EDR Contact: 06/15/2020
 Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/06/2019
 Date Data Arrived at EDR: 11/25/2019
 Date Made Active in Reports: 01/28/2020
 Number of Days to Update: 64

Source: Department of Labor, Mine Safety and Health Administration
 Telephone: 303-231-5959
 Last EDR Contact: 02/25/2020
 Next Scheduled EDR Contact: 06/08/2020
 Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
 Date Data Arrived at EDR: 02/29/2008
 Date Made Active in Reports: 04/18/2008
 Number of Days to Update: 49

Source: USGS
 Telephone: 703-648-7709
 Last EDR Contact: 02/28/2020
 Next Scheduled EDR Contact: 06/08/2020
 Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 02/28/2020
Number of Days to Update: 97	Next Scheduled EDR Contact: 06/08/2020
	Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/09/2019	Source: Department of Interior
Date Data Arrived at EDR: 12/11/2019	Telephone: 202-208-2609
Date Made Active in Reports: 02/27/2020	Last EDR Contact: 12/04/2019
Number of Days to Update: 78	Next Scheduled EDR Contact: 03/23/2020
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 11/22/2019	Source: EPA
Date Data Arrived at EDR: 12/04/2019	Telephone: (206) 553-1200
Date Made Active in Reports: 03/02/2020	Last EDR Contact: 03/03/2020
Number of Days to Update: 89	Next Scheduled EDR Contact: 06/15/2020
	Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 02/21/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 06/08/2020
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017	Source: Department of Defense
Date Data Arrived at EDR: 01/17/2019	Telephone: 703-704-1564
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 01/13/2020
Number of Days to Update: 74	Next Scheduled EDR Contact: 04/27/2020
	Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Attachment A

Date of Government Version: 10/06/2019
Date Data Arrived at EDR: 10/08/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/18/2019
Date Data Arrived at EDR: 11/19/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 70

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/19/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Quarterly

AIRS (EMI): Washington Emissions Data System Emissions inventory data.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 06/19/2019
Number of Days to Update: 110

Source: Department of Ecology
Telephone: 360-407-6040
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Annually

ASBESTOS: Asbestos Notification Listing Asbestos sites

Date of Government Version: 12/05/2019
Date Data Arrived at EDR: 01/02/2020
Date Made Active in Reports: 02/13/2020
Number of Days to Update: 42

Source: Department of Labor & Industries
Telephone: 360-902-6209
Last EDR Contact: 02/18/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Site Listing A listing of coal ash disposal site locations.

Date of Government Version: 12/04/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/13/2020
Number of Days to Update: 70

Source: Department of Ecology
Telephone: 360-407-6933
Last EDR Contact: 03/02/2020
Next Scheduled EDR Contact: 06/15/2020
Data Release Frequency: Varies

DRYCLEANERS: Drycleaner List

A listing of registered drycleaners who registered with the Department of Ecology (using the SIC code of 7215 and 7216) as hazardous waste generators.

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 10/17/2019
Date Made Active in Reports: 12/27/2019
Number of Days to Update: 71

Source: Department of Ecology
Telephone: 360-407-6732
Last EDR Contact: 01/13/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/25/2019
Date Data Arrived at EDR: 11/27/2019
Date Made Active in Reports: 01/24/2020
Number of Days to Update: 58

Source: Department of Ecology
Telephone: 360-586-1060
Last EDR Contact: 02/24/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: No Update Planned

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/19/2019	Source: Department of Ecology
Date Data Arrived at EDR: 11/25/2019	Telephone: 360-407-6754
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 02/10/2020
Number of Days to Update: 64	Next Scheduled EDR Contact: 05/25/2020
	Data Release Frequency: Varies

Financial Assurance 3: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/15/2017	Source: Department of Ecology
Date Data Arrived at EDR: 11/20/2017	Telephone: 360-407-6136
Date Made Active in Reports: 01/04/2018	Last EDR Contact: 02/10/2020
Number of Days to Update: 45	Next Scheduled EDR Contact: 05/25/2020
	Data Release Frequency: No Update Planned

INACTIVE DRYCLEANERS: Inactive Drycleaners

A listing of inactive drycleaner facility locations.

Date of Government Version: 10/15/2019	Source: Department of Ecology
Date Data Arrived at EDR: 10/17/2019	Telephone: 360-407-6732
Date Made Active in Reports: 12/27/2019	Last EDR Contact: 01/13/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 04/27/2020
	Data Release Frequency: Annually

WA MANIFEST: Hazardous Waste Manifest Data

Hazardous waste manifest information.

Date of Government Version: 03/29/2019	Source: Department of Ecology
Date Data Arrived at EDR: 03/29/2019	Telephone: N/A
Date Made Active in Reports: 06/24/2019	Last EDR Contact: 12/12/2019
Number of Days to Update: 87	Next Scheduled EDR Contact: 03/30/2020
	Data Release Frequency: Annually

NPDES: Water Quality Permit System Data

A listing of permitted wastewater facilities.

Date of Government Version: 10/15/2019	Source: Department of Ecology
Date Data Arrived at EDR: 10/17/2019	Telephone: 360-407-6073
Date Made Active in Reports: 12/27/2019	Last EDR Contact: 01/15/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 04/27/2020
	Data Release Frequency: Quarterly

UIC: Underground Injection Wells Listing

A listing of underground injection wells.

Date of Government Version: 10/15/2019	Source: Department of Ecology
Date Data Arrived at EDR: 10/17/2019	Telephone: 360-407-6143
Date Made Active in Reports: 12/27/2019	Last EDR Contact: 01/15/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 04/27/2020
	Data Release Frequency: Quarterly

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Attachment A

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 02/28/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

Date of Government Version: N/A	Source: Department of Ecology
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/24/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 176	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

Date of Government Version: N/A	Source: Department of Ecology
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/10/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 193	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

Date of Government Version: N/A	Source: Department of Ecology
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/24/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 176	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

COUNTY RECORDS

KING COUNTY:

LF KING: Abandoned Landfill Study in King County

The King County Abandoned Landfill Survey was conducted from October through December 1984 by the Health Department's Environmental Health Division at the request of the King County Council. The primary objective of the survey was to determine if any public health problems existed at the predetermined 24 sites.

Date of Government Version: 04/30/1985	Source: Seattle-King County Department of Public Health
Date Data Arrived at EDR: 11/07/1994	Telephone: 206-296-4785
Date Made Active in Reports: N/A	Last EDR Contact: 10/21/1994
Number of Days to Update: 0	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

SEATTLE COUNTY:

LF SEATTLE CITY: Abandoned Landfill Study in the City of Seattle

The Seattle Abandoned Landfill Survey was conducted in June and July of 1984 by the Health Department's Environmental Health Division at the request of the Mayor's Office. The primary objective of the survey was to determine if any public health problems existed at the predetermined 12 sites.

Date of Government Version: 07/30/1984	Source: Seattle - King County Department of Public Health
Date Data Arrived at EDR: 11/07/1994	Telephone: 206-296-4785
Date Made Active in Reports: N/A	Last EDR Contact: 10/21/1994
Number of Days to Update: 0	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

SEATTLE/KING COUNTY:

LF SEATTLE/KING: Seattle - King County Abandoned Landfill Toxicity / Hazard Assessment Project

This report presents the Seattle-King County Health Department's follow-up investigation of two city owned and four county owned abandoned landfills which was conducted from February to December 1986.

Date of Government Version: 12/31/1986
Date Data Arrived at EDR: 08/18/1995
Date Made Active in Reports: 09/20/1995
Number of Days to Update: 33

Source: Department of Public Health
Telephone: 206-296-4785
Last EDR Contact: 08/14/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SNOHOMISH COUNTY:

LF SNOHOMISH: Solid Waste Sites of Record at Snohomish Health District

Solid waste disposal and/or utilization sites in Snohomish County.

Date of Government Version: 09/23/2019
Date Data Arrived at EDR: 09/25/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 29

Source: Snohomish Health District
Telephone: 206-339-5250
Last EDR Contact: 12/20/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: No Update Planned

TACOMA/PIERCE COUNTY:

LF TACOMA/PIERCE: Closed Landfill Survey

Following numerous requests for information about closed dumpsites and landfills in Pierce County, the Tacoma-Pierce County Health Department decided to conduct a study on the matter. The aim of the study was to evaluate public health risks associated with the closed dumpsites and landfills, and to determine the need, if any, for further investigations of a more detailed nature. The sites represent all of the known dumpsites and landfills closed after 1950.

Date of Government Version: 09/01/2002
Date Data Arrived at EDR: 03/24/2003
Date Made Active in Reports: 05/14/2003
Number of Days to Update: 51

Source: Tacoma-Pierce County Health Department
Telephone: 206-591-6500
Last EDR Contact: 03/19/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/14/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/03/2020
Number of Days to Update: 60

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 01/30/2020
Next Scheduled EDR Contact: 05/25/2020
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
 Date Data Arrived at EDR: 05/01/2019
 Date Made Active in Reports: 06/21/2019
 Number of Days to Update: 51

Source: Department of Environmental Conservation
 Telephone: 518-402-8651
 Last EDR Contact: 01/31/2020
 Next Scheduled EDR Contact: 05/11/2020
 Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
 Date Data Arrived at EDR: 07/19/2019
 Date Made Active in Reports: 09/10/2019
 Number of Days to Update: 53

Source: Department of Environmental Protection
 Telephone: 717-783-8990
 Last EDR Contact: 01/14/2020
 Next Scheduled EDR Contact: 04/07/2020
 Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
 Date Data Arrived at EDR: 06/19/2019
 Date Made Active in Reports: 09/03/2019
 Number of Days to Update: 76

Source: Department of Natural Resources
 Telephone: N/A
 Last EDR Contact: 12/18/2019
 Next Scheduled EDR Contact: 03/23/2020
 Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Daycare Center Listing

Source: Department of Social & Health Services

Telephone: 253-383-1735

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Ecology

Telephone: 360-407-6121

STREET AND ADDRESS INFORMATION

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APPENDIX C

**Table of Wells Located in Wellhead
Protection Areas (from Department
of Ecology database)**

August 2020

130021817

Table C-1: Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
286836			21	6		23	8	E	5	NE	SW		King	W			1316764	796030
1786920		SE67590	12	2.25	125 SE NORTH BEND WAY LLC	23	8	E	9	NE	SW	43367	King	R	43372	8571900045	1321974	790575
1786921		SE67590	12	2.25	125 SE NORTH BEND WAY LLC	23	8	E	9	NE	SW	43367	King	R	43372	8571900045	1321974	790575
1786922		SE67590	12	2.25	125 SE NORTH BEND WAY LLC	23	8	E	9	NE	SW	43367	King	R	43372	8571900045	1321974	790575
1787091		AE51236	12	2.25	125 SE NORTH BEND WAY LLC	23	8	E	9	NE	SW	43367	King	A	43372	8571900045	1321974	790575
1787092		AE51236	12	2.25	125 SE NORTH BEND WAY LLC	23	8	E	9	NE	SW	43367	King	A	43372	8571900045	1321974	790575
1787093		AE51236	12	2.25	125 SE NORTH BEND WAY LLC	23	8	E	9	NE	SW	43367	King	A	43372	8571900045	1321974	790575
1049933		SE55933	11.5	8	City Of North Bend	23	8	E	4	SW	NW	42262	King	R	42272		1319423	794660
1049934		SE55933	11.5	8	City Of North Bend	23	8	E	4	SW	NW	42262	King	R	42272		1319423	794660
1049935		SE55933	11.5	8	City Of North Bend	23	8	E	4	SW	NW	42262	King	R	42272		1319423	794660
1049936		SE55933	11.5	8	City Of North Bend	23	8	E	4	SW	NW	42262	King	R	42272		1319423	794660
1049937		AE33822	11.5	8	City Of North Bend	23	8	E	4	SW	NW	42262	King	A	42272		1319423	794660
1049938		AE33822	11.5	8	City Of North Bend	23	8	E	4	SW	NW	42262	King	A	42272		1319423	794660
1049939		AE33822	11.5	8	City Of North Bend	23	8	E	4	SW	NW	42262	King	A	42272		1319423	794660
1049940		AE33822	11.5	8	City Of North Bend	23	8	E	4	SW	NW	42262	King	A	42272		1319423	794660
1643399		SE63435	20	8	City Of North Bend	23	8	E	4	SE	SW	42989	King	R	43028		1322027	793234
1643400		SE63435	20	8	City Of North Bend	23	8	E	4	SE	SW	42989	King	R	43028		1322027	793234
1643401		SE63435	20	8	City Of North Bend	23	8	E	4	SE	SW	42989	King	R	43028		1322027	793234
1643402		SE63435	20	8	City Of North Bend	23	8	E	4	SE	SW	42989	King	R	43028		1322027	793234
1643403		AE45068	20	8	City Of North Bend	23	8	E	4	SE	SW	42989	King	A	43028		1322027	793234
1643404		AE45068	20	8	City Of North Bend	23	8	E	4	SE	SW	42989	King	A	43028		1322027	793234
1643405		AE45068	20	8	City Of North Bend	23	8	E	4	SE	SW	42989	King	A	43028		1322027	793234
1643406		AE45068	20	8	City Of North Bend	23	8	E	4	SE	SW	42989	King	A	43028		1322027	793234
1671724		SE64092	35	8	City Of North Bend	23	8	E	4	SE	SE	43045	King	R	43133		1323347	793189
1671725		SE64092	35	8	City Of North Bend	23	8	E	4	SE	SE	43045	King	R	43133		1323347	793189
1671726		SE64092	35	8	City Of North Bend	23	8	E	4	SE	SE	43045	King	R	43133		1323347	793189
1671727		SE64092	35	8	City Of North Bend	23	8	E	4	SE	SE	43045	King	R	43133		1323347	793189
1671728		AE45994	35	8	City Of North Bend	23	8	E	4	SE	SE	43045	King	A	43133		1323347	793189
1671729		AE45994	35	8	City Of North Bend	23	8	E	4	SE	SE	43045	King	A	43133		1323347	793189
1671730		AE45994	35	8	City Of North Bend	23	8	E	4	SE	SE	43045	King	A	43133		1323347	793189
1671731		AE45994	35	8	City Of North Bend	23	8	E	4	SE	SE	43045	King	A	43133		1323347	793189
1897629		SE69357	17	7	City Of North Bend	23	8	E	10	SW	NW	43546	King	R	43569		1324630	789161
1897630		SE69357	17	7	City Of North Bend	23	8	E	10	SW	NW	43546	King	R	43569		1324630	789161
1897631		SE69357	17	7	City Of North Bend	23	8	E	10	SW	NW	43546	King	R	43569		1324630	789161
1897632		SE69357	17	7	City Of North Bend	23	8	E	10	SW	NW	43546	King	R	43569		1324630	789161
1897633		AE53888	17	7	City Of North Bend	23	8	E	10	SW	NW	43546	King	A	43569		1324630	789161
1897634		AE53888	17	7	City Of North Bend	23	8	E	10	SW	NW	43546	King	A	43569		1324630	789161
1897635		AE53888	17	7	City Of North Bend	23	8	E	10	SW	NW	43546	King	A	43569		1324630	789161
1897636		AE53888	17	7	City Of North Bend	23	8	E	10	SW	NW	43546	King	A	43569		1324630	789161
1592062		SE59725	15	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42641	King	R	42655	2700600265	1321974	790575
1592063		AE39470	15	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42641	King	A	42655	2700600265	1321974	790575
1592064		EE06281	15	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	R	42655	2700600265	1321974	790575
1592065		AE39471	15	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	A	42655	2700600265	1321974	790575
1592066		EE06281	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	R	42655	2700600265	1321974	790575
1592067		EE06281	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	R	42655	2700600265	1321974	790575
1592068		EE06281	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	R	42655	2700600265	1321974	790575
1592069		EE06281	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	R	42655	2700600265	1321974	790575
1592070		EE06281	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	R	42655	2700600265	1321974	790575
1592071		AE39471	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	A	42655	2700600265	1321974	790575
1592072		AE39471	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	A	42655	2700600265	1321974	790575
1592073		AE39471	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	A	42655	2700600265	1321974	790575
1592074		AE39471	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	A	42655	2700600265	1321974	790575
1592075		AE39471	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	A	42655	2700600265	1321974	790575
1592179		SE59725	25	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42641	King	R	42655	2700600265	1321974	790575
1592180		AE39470	25	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42641	King	A	42655	2700600265	1321974	790575
1592181		SE59725	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42641	King	R	42655	2700600265	1321974	790575
1592182		SE59725	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42641	King	R	42655	2700600265	1321974	790575
1592183		SE59725	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42641	King	R	42655	2700600265	1321974	790575
1592184		SE59725	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42641	King	R	42655	2700600265	1321974	790575
1592185		SE59725	20	2.25	Dept Of Natural Resources	23	8	E	9	NE	SW	42641	King	R	42655	2700600265	1321974	790575

August 2020

130021817

Table C-1: Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR	
1592186		SE59725	20	2.25	Dept Of Natural Resources	23	8	E		9	NE	SW	42641	King	R	42655	2700600265	1321974	790575
1592187		AE39470	20	2.25	Dept Of Natural Resources	23	8	E		9	NE	SW	42641	King	A	42655	2700600265	1321974	790575
1592188		AE39470	20	2.25	Dept Of Natural Resources	23	8	E		9	NE	SW	42641	King	A	42655	2700600265	1321974	790575
1592189		AE39470	20	2.25	Dept Of Natural Resources	23	8	E		9	NE	SW	42641	King	A	42655	2700600265	1321974	790575
1592190		AE39470	20	2.25	Dept Of Natural Resources	23	8	E		9	NE	SW	42641	King	A	42655	2700600265	1321974	790575
1592191		AE39470	20	2.25	Dept Of Natural Resources	23	8	E		9	NE	SW	42641	King	A	42655	2700600265	1321974	790575
1592192		AE39470	20	2.25	Dept Of Natural Resources	23	8	E		9	NE	SW	42641	King	A	42655	2700600265	1321974	790575
1750476		EE07301	17	2.25	DRLLEVICH	23	8	E		14	SE	SE	43334	King	R	43339	1423089030	1333689	782174
1750477		AE50422	17	2.25	DRLLEVICH	23	8	E		14	SE	SE	43334	King	A	43339	1423089030	1333689	782174
1750478		EE07301	20	2.25	DRLLEVICH	23	8	E		14	SE	SE	43334	King	R	43339	1423089030	1333689	782174
1750479		EE07301	20	2.25	DRLLEVICH	23	8	E		14	SE	SE	43334	King	R	43339	1423089030	1333689	782174
1750480		AE50422	20	2.25	DRLLEVICH	23	8	E		14	SE	SE	43334	King	A	43339	1423089030	1333689	782174
1750481		AE50422	20	2.25	DRLLEVICH	23	8	E		14	SE	SE	43334	King	A	43339	1423089030	1333689	782174
1750482		EE07301	28	2.25	DRLLEVICH	23	8	E		14	SE	SE	43334	King	R	43339	1423089030	1333689	782174
1750483		AE50422	28	2.25	DRLLEVICH	23	8	E		14	SE	SE	43334	King	A	43339	1423089030	1333689	782174
1750484		EE07301	5	2.25	DRLLEVICH	23	8	E		14	SE	SE	43334	King	R	43339	1423089030	1333689	782174
1750485		AE50422	5	2.25	DRLLEVICH	23	8	E		14	SE	SE	43334	King	A	43339	1423089030	1333689	782174
1787700		SE67501	45	6	Drlevich	23	8	E		14	SE	SE	43360	King	R	43371		1333689	782174
1787701		AE51112	45	6	Drlevich	23	8	E		14	SE	SE	43360	King	A	43371		1333689	782174
1787702		SE67501	40	6	Drlevich	23	8	E		14	SE	SE	43360	King	R	43371		1333689	782174
1787703		AE51112	40	6	Drlevich	23	8	E		14	SE	SE	43360	King	A	43371		1333689	782174
1895261		SE69289	9	2.25	Fleming	23	8	E		13	SW	SW	43542	King	R	43552	1323089053	1334990	782106
1895262		AE53786	9	2.25	Fleming	23	8	E		13	SW	SW	43542	King	A	43552	1323089053	1334990	782106
1895263		SE69289	20	2.25	Fleming	23	8	E		13	SW	SW	43542	King	R	43552	1323089053	1334990	782106
1895264		AE53786	20	2.25	Fleming	23	8	E		13	SW	SW	43542	King	A	43552	1323089053	1334990	782106
1895265		SE69289	24	2.25	Fleming	23	8	E		13	SW	SW	43542	King	R	43552	1323089053	1334990	782106
1895266		AE53786	24	2.25	Fleming	23	8	E		13	SW	SW	43542	King	A	43552	1323089053	1334990	782106
1895267		SE69289	8	2.25	Fleming	23	8	E		13	SW	SW	43542	King	R	43552	1323089053	1334990	782106
1895268		AE53786	8	2.25	Fleming	23	8	E		13	SW	SW	43542	King	A	43552	1323089053	1334990	782106
1895277		SE69289	6	2.25	Fleming	23	8	E		13	SW	SW	43542	King	R	43552	1323089053	1334990	782106
1895278		SE69289	6	2.25	Fleming	23	8	E		13	SW	SW	43542	King	R	43552	1323089053	1334990	782106
1895279		SE69289	6	2.25	Fleming	23	8	E		13	SW	SW	43542	King	R	43552	1323089053	1334990	782106
1895280		AE53786	6	2.25	Fleming	23	8	E		13	SW	SW	43542	King	A	43552	1323089053	1334990	782106
1895281		AE53786	6	2.25	Fleming	23	8	E		13	SW	SW	43542	King	A	43552	1323089053	1334990	782106
1895282		AE53786	6	2.25	Fleming	23	8	E		13	SW	SW	43542	King	A	43552	1323089053	1334990	782106
1895283		SE69289	7	2.25	Fleming	23	8	E		13	SW	SW	43542	King	R	43552	1323089053	1334990	782106
1895284		SE69289	7	2.25	Fleming	23	8	E		13	SW	SW	43542	King	R	43552	1323089053	1334990	782106
1895285		AE53786	7	2.25	Fleming	23	8	E		13	SW	SW	43542	King	A	43552	1323089053	1334990	782106
1895286		AE53786	7	2.25	Fleming	23	8	E		13	SW	SW	43542	King	A	43552	1323089053	1334990	782106
1895287		SE69289	19	2.25	Fleming	23	8	E		13	SW	SW	43542	King	R	43552	1323089053	1334990	782106
1895288		SE69289	19	2.25	Fleming	23	8	E		13	SW	SW	43542	King	R	43552	1323089053	1334990	782106
1895289		AE53786	19	2.25	Fleming	23	8	E		13	SW	SW	43542	King	A	43552	1323089053	1334990	782106
1895290		AE53786	19	2.25	Fleming	23	8	E		13	SW	SW	43542	King	A	43552	1323089053	1334990	782106
1909741		EE07815	15	2.25	Kimberlee McConkey	23	8	E		10	SW	SW	43665	King	R	43668	1023089272	1324611	787828
1909742		AE55842	15	2.25	Kimberlee McConkey	23	8	E		10	SW	SW	43665	King	A	43668	1023089272	1324611	787828
1909743		EE07815	22	2.25	Kimberlee McConkey	23	8	E		10	SW	SW	43665	King	R	43668	1023089272	1324611	787828
1909744		AE55842	22	2.25	Kimberlee McConkey	23	8	E		10	SW	SW	43665	King	A	43668	1023089272	1324611	787828
1909745		EE07815	22	2.25	Kimberlee McConkey	23	8	E		10	SW	SW	43665	King	R	43668	1023089272	1324611	787828
1909746		AE55842	22	2.25	Kimberlee McConkey	23	8	E		10	SW	SW	43665	King	A	43668	1023089272	1324611	787828
1909747		EE07815	12	2.25	Kimberlee McConkey	23	8	E		10	SW	SW	43665	King	R	43668	1023089272	1324611	787828
1909748		AE55842	12	2.25	Kimberlee McConkey	23	8	E		10	SW	SW	43665	King	A	43668	1023089272	1324611	787828
1909749		EE07815	22	2.25	Kimberlee McConkey	23	8	E		10	SW	SW	43665	King	R	43668	1023089272	1324611	787828
1909750		AE55842	22	2.25	Kimberlee McConkey	23	8	E		10	SW	SW	43665	King	A	43668	1023089272	1324611	787828
1059680		SE56018	25	9	King County DOT	23	8	E		16	SE	SW	42278	King	R	42289		1321839	782652
1059681		AE33976	25	9	King County DOT	23	8	E		16	SE	SW	42278	King	A	42289		1321839	782652
1059682																			

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
1588319		SE59500	20	8	Millwork Outlet	23	8	E	14	SW	SE	42612	King	R	42622		1331136	782324
1588320		SE59500	20	8	Millwork Outlet	23	8	E	14	SW	SE	42612	King	R	42622		1331136	782324
1588321		AE39133	20	8	Millwork Outlet	23	8	E	14	SW	SE	42612	King	A	42622		1331136	782324
1588322		AE39133	20	8	Millwork Outlet	23	8	E	14	SW	SE	42612	King	A	42622		1331136	782324
1588323		AE39133	20	8	Millwork Outlet	23	8	E	14	SW	SE	42612	King	A	42622		1331136	782324
1588324		AE39133	20	8	Millwork Outlet	23	8	E	14	SW	SE	42612	King	A	42622		1331136	782324
1588325		AE39133	20	8	Millwork Outlet	23	8	E	14	SW	SE	42612	King	A	42622		1331136	782324
1588326		SE59500	25	8	Millwork Outlet	23	8	E	14	SW	SE	42611	King	R	42622		1331136	782324
1588327		AE39133	25	8	Millwork Outlet	23	8	E	14	SW	SE	42611	King	A	42622		1331136	782324
1614877		SE61411	56.5	9	North Bend Wastewater Treatment Plant	23	8	E	4	SE	SW	42803	King	R	42811		1322027	793234
1614878		AE41916	56.5	9	North Bend Wastewater Treatment Plant	23	8	E	4	SE	SW	42803	King	A	42811		1322027	793234
1573415		SE58905	31	9	PETROCARD INC	23	9	E	19	NW	NW	42557	King	R	42563		1340236	780561
1573416		SE58905	31	9	PETROCARD INC	23	9	E	19	NW	NW	42557	King	R	42563		1340236	780561
1573527		AE38230	31	9	PETROCARD INC	23	9	E	19	NW	NW	42557	King	A	42563		1340236	780561
1573528		AE38230	31	9	PETROCARD INC	23	9	E	19	NW	NW	42557	King	A	42563		1340236	780561
1586093		SE59018	30	8	QUADRANT CORPORATION	23	8	E	15	NW	SE	42583	King	R	42591		1325905	785159
1586094		AE38441	30	8	QUADRANT CORPORATION	23	8	E	15	NW	SE	42583	King	A	42591		1325905	785159
1648522		SE64091	20	2.25	Rash And Associates 47	23	8	E	9	SW	SE	43052	King	R	43070	923089060	1320568	787972
1648523		SE64091	20	2.25	Rash And Associates 47	23	8	E	9	SW	SE	43052	King	R	43070	923089060	1320568	787972
1648524		SE64091	20	2.25	Rash And Associates 47	23	8	E	9	SW	SE	43052	King	R	43070	923089060	1320568	787972
1648525		AE45992	20	2.25	Rash And Associates 47	23	8	E	9	SW	SE	43052	King	A	43070	923089060	1320568	787972
1648526		AE45992	20	2.25	Rash And Associates 47	23	8	E	9	SW	SE	43052	King	A	43070	923089060	1320568	787972
1648527		AE45992	20	2.25	Rash And Associates 47	23	8	E	9	SW	SE	43052	King	A	43070	923089060	1320568	787972
1587476		SE59242	20	2.25	Rash Associates 47	23	8	E	9	SW	SE	42604	King	R	42613	923089060	1320568	787972
1587477		SE59242	20	2.25	Rash Associates 47	23	8	E	9	SW	SE	42604	King	R	42613	923089060	1320568	787972
1587478		SE59242	20	2.25	Rash Associates 47	23	8	E	9	SW	SE	42604	King	R	42613	923089060	1320568	787972
1587479		AE38774	20	2.25	Rash Associates 47	23	8	E	9	SW	SE	42604	King	A	42613	923089060	1320568	787972
1587480		AE38774	20	2.25	Rash Associates 47	23	8	E	9	SW	SE	42604	King	A	42613	923089060	1320568	787972
1587481		AE38774	20	2.25	Rash Associates 47	23	8	E	9	SW	SE	42604	King	A	42613	923089060	1320568	787972
1648504		SE64046	17	2.25	Warrior Quick Stop	23	9	E	19	NW	NW	43040	King	R	43069	2267500020	1340236	780561
1648505		AE45929	17	2.25	Warrior Quick Stop	23	9	E	19	NW	NW	43040	King	A	43069	2267500020	1340236	780561
1649555		SE63931	35	8	Western Gateway LLC	23	8	E	9	NE	SW	43031	King	R	43074		1321974	790575
1649556		AE45764	35	8	Western Gateway LLC	23	8	E	9	NE	SW	43031	King	A	43074		1321974	790575
1649557		SE63931	25	8	Western Gateway LLC	23	8	E	9	NE	SW	43031	King	R	43074		1321974	790575
1649558		SE63931	25	8	Western Gateway LLC	23	8	E	9	NE	SW	43031	King	R	43074		1321974	790575
1649559		AE45764	25	8	Western Gateway LLC	23	8	E	9	NE	SW	43031	King	A	43074		1321974	790575
1649560		AE45764	25	8	Western Gateway LLC	23	8	E	9	NE	SW	43031	King	A	43074		1321974	790575
1649561		SE63931	20	8	Western Gateway LLC	23	8	E	9	NE	SW	43031	King	R	43074		1321974	790575
1649562		AE45764	20	8	Western Gateway LLC	23	8	E	9	NE	SW	43031	King	A	43074		1321974	790575
287002			60	8	A. E. NICK	23	8	E	15	NE			King	W			1327926	785771
101047				26	A. KUSAK	23	8	E	22	NE	NE	22873	King	W			1328506	781172
101048			17	26	A. KUSAK	23	8	E	22	NE	NE		King	W			1328506	781172
101078			37	6	AL CHICKLERO	23	8	E	14	SW	NE	30875	King	W			1331159	783644
101090		28148	21	6	ALAN CARTER	23	8	E	3	NW	NW	32619	King	W	32624		1324735	797150
101092				32	ALAN JACOBS	23	8	E	15	SE	NE	22839	King	W			1328568	783790
101093			14	32	ALAN JACOBS	23	8	E	15	SE	NE		King	W			1328568	783790
101112			13	30	ALBERT WEALSLAYER	23	8	E	15	SE	NE	22838	King	W			1328568	783790
101113			16	30	ALBERT WEALSLAYER	23	8	E	15	SE	NE		King	W			1328568	783790
101117				24	ALCK BRAIM SR.	23	8	E	15	NW	SE	22865	King	W			1325905	785159
101118			14	24	ALCK BRAIM SR.	23	8	E	15	NW	SE		King	W			1325905	785159
305398		A051402	22.5	30	ALICIA MATHWIG	23	8	E	15	NW	SE	37041	King	A	37046		1325905	785159
1906527		AE50931	8.4	36	Allison and Payton Thompson	23	8	E	3	SW	SW	43477	King	A	43565	323089052	1324691	793157
1615501	BKJ802	WE25658	455	6	Andrea Oglavie Eisler	23	8	E	16	NE	SW	42800	King	W	42804	1623089034	1321875	785283
101181		10520		36	ANDY NEFF	23	8	E	15	NE	SW	35365	King	W	35381		1327246	785131
101288			40	6	ARTHUR RAY	23	8	E	15	NE	NW	29144	King	W	29177		1327267	786443
287216			25	36	B. MURPHY	23	8	E	15	NE	SE		King	W			1328588	785101
287217			41	6	B. MURPHY	23	8	E	15	NE	SE		King	W			1328588	785101

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
101438			40		6 BARRY HANKINS	23	8	E	10	NE	SE	30204	King	W			1328724	790422
336396		A051436	48		6 BERNICE KASTNER	23	8	E	14	NE	SW	37453	King	A	37455		1332464	784890
336397		A051435	50		6 BERNICE KASTNER	23	8	E	14	NE	SW	37449	King	A	37455		1332464	784890
88385		43445	80		6 BILL HAND	23	9	E	7	SE	SE	35072	King	W	35096		1344296	787083
365388	ABO569	W153687	27		6 BILL LAATSCH	23	8	E	10	NW	NE	37802	King	W	37823	102308-9233-03	1326039	791805
304181	AFL584	W128521	39		6 BILL STRAIT	23	8	E	16	SW	NW	36919	King	W	36921		1319170	784079
101607		44276	37		6 BILL VALENTINE	23	8	E	3	SE	SW	33488	King	W	33521		1327424	793116
101613		W041816	129		8 BIONED INC	23	8	E	4	SW	NE	34172	King	W	34200		1320737	794614
1898129	BLH617	WE32999	47		6 BLUE HILL LLC	23	8	E	4	NW	SW	43378	King	W	43490	5418700060	1319455	795994
458442	ALK953	W251801	55.7		6 BOB EASTER	23	8	E	10	NE	NW	38905	King	W	39036	102308-9083	1327402	791783
304412	AFJ829	W127886	36		6 BOB KAAKE	23	8	E	10	NE	NW	36880	King	W	36901		1327402	791783
1673087	BKS414	WE29118	113		8 BOB YERKES	23	8	E	8	SE	NW	42996	King	W	43073	823089050	1316639	789390
101916			20		24 BOYD BURICS	23	8	E	15	NE	SW	22838	King	W			1327246	785131
101917			22		24 BOYD BURICS	23	8	E	15	NE	SW		King	W			1327246	785131
786096		SE44651	15		8 Brookwater Fund The Riley Group	23	8	E	9	SW	NE	40956	King	R	40987		1320605	789298
786098		SE44651	15		8 Brookwater Fund The Riley Group	23	8	E	9	SW	NE	40956	King	R	40987		1320605	789298
786100		SE44651	15		8 Brookwater Fund The Riley Group	23	8	E	9	SW	NE	40956	King	R	40987		1320605	789298
786101		SE44651	10		8 Brookwater Fund The Riley Group	23	8	E	9	SW	NE	40956	King	R	40987		1320605	789298
786103		SE44651	25		8 Brookwater Fund The Riley Group	23	8	E	9	SW	NE	40956	King	R	40987		1320605	789298
786105		SE44651	20		8 Brookwater Fund The Riley Group	23	8	E	9	SW	NE	40956	King	R	40987		1320605	789298
786107		AE16424	15		8 Brookwater Fund The Riley Group	23	8	E	9	NE	SW	40956	King	A	40987		1321974	790575
786109		AE16424	15		8 Brookwater Fund The Riley Group	23	8	E	9	NE	SW	40956	King	A	40987		1321974	790575
786111		AE16424	15		8 Brookwater Fund The Riley Group	23	8	E	9	SW	NE	40956	King	A	40987		1320605	789298
786113		AE16424	10		8 Brookwater Fund The Riley Group	23	8	E	9	SW	NE	40956	King	A	40987		1320605	789298
786115		AE16424	25		8 Brookwater Fund The Riley Group	23	8	E	9	SW	NE	40956	King	A	40987		1320605	789298
786117		AE16424	20		8 Brookwater Fund The Riley Group	23	8	E	9	SW	NE	40956	King	A	40987		1320605	789298
666270		AE09987	15		2 Brown Petroleum Eco Compliance Corp.	23	8	E	9	NE	SW	40378	King	A	40388	857090-0204	1321974	790575
666272		AE09987	13		2 Brown Petroleum Eco Compliance Corp.	23	8	E	9	NE	SW	40378	King	A	40388	857090-0204	1321974	790575
400008		E003527	16		2 BRYANS ONE STOP	23	8	E	9	NE	NW	38357	King	R	38380		1322004	791901
400009		E003527	16		2 BRYANS ONE STOP	23	8	E	9	NE	NW	38357	King	R	38380		1322004	791901
400010		E003527	16		2 BRYANS ONE STOP	23	8	E	9	NE	NW	38357	King	R	38380		1322004	791901
400011		E003527	16		2 BRYANS ONE STOP	23	8	E	9	NE	NW	38357	King	R	38380		1322004	791901
400012		E003527	16		2 BRYANS ONE STOP	23	8	E	9	NE	NW	38357	King	R	38380		1322004	791901
400013		E003527	16		2 BRYANS ONE STOP	23	8	E	9	NE	NW	38357	King	R	38380		1322004	791901
491019		E006467	12		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	R	39269		1322004	791901
491020		E006467	12		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	R	39269		1322004	791901
491021		E006467	12		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	R	39269		1322004	791901
491022		E006467	12		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	R	39269		1322004	791901
491023		E006467	12		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	R	39269		1322004	791901
491024		A130194	12		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	A	39269		1322004	791901
491025		A130194	12		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	A	39269		1322004	791901
491026		A130194	12		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	A	39269		1322004	791901
491027		A130194	12		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	A	39269		1322004	791901

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
491028		A130194	12		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	A	39269		1322004	791901
491029		S027529	16		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	R	39269		1322004	791901
491030		S027529	16		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	R	39269		1322004	791901
491031		A130193	16		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	A	39269		1322004	791901
491032		A130193	16		BRYANS ONE STOP THE REMEDIATORS	23	8	E	9	NE	NW	39248	King	A	39269		1322004	791901
513237	BAB922	R071939	15	8	BRYANS TAQUERIA THE REMEDIATORS	23	8	E	9	NE	SW	39436	King	R	39466		1321974	790575
513238	BAB923	R071939	15	8	BRYANS TAQUERIA THE REMEDIATORS	23	8	E	9	NE	SW	39436	King	R	39466		1321974	790575
513239	BAB924	R071939	15	8	BRYANS TAQUERIA THE REMEDIATORS	23	8	E	9	NE	SW	39436	King	R	39466		1321974	790575
513240	BAB925	R071939	15	8	BRYANS TAQUERIA THE REMEDIATORS	23	8	E	9	NE	SW	39436	King	R	39466		1321974	790575
513241	BAB926	R071939	15	8	BRYANS TAQUERIA THE REMEDIATORS	23	8	E	9	NE	SW	39436	King	R	39466		1321974	790575
513242	BAB927	R071939	15	8	BRYANS TAQUERIA THE REMEDIATORS	23	8	E	9	NE	SW	39436	King	R	39466		1321974	790575
102043		16898	40		6 BYRON MOORE	23	8	E	10	NW	SE	33444	King	W	33492		1326010	790470
287965					6 C. CRAATDEL	23	8	E	10	SE	NW		King	W			1327333	789108
359605	ABO400	W153918	170		6 CADMAN	23	9	E	19	NW	NE	37718	King	W	37748		1341515	780544
363583	AKY810	W159317	156.5		6 CADMAN	23	9	E	19	NW	NE	37764	King	W	37792		1341515	780544
365431	AER245	R005049	130		9 CADMAN INC.	23	9	E	19	NE	NW	36298	King	R	36369		1342792	780525
367902	AKY922	W167867	262.5		6 CADMAN ROCK	23	9	E	19	NW	NW	37825	King	W	37859		1340236	780561
287969			40		6 CALVIN KNAPP	23	8	E	15	NE			King	W			1327926	785771
102108			40		6 CARL CANGIE	23	8	E	15	NW	NW	30959	King	W	31040		1324589	786502
287997					CASCADE AUTO BAHN	23	8	E	9				King	R			1321294	789925
287998					CASCADE AUTO BAHN	23	8	E	9				King	R			1321294	789925
287999					CASCADE AUTO BAHN	23	8	E	9				King	R			1321294	789925
102140					10 CASCADE GOLF COURSE	23	8	E	15	SE	SE		King	W	33903		1328548	782479
288017			12	48	CHARLES DOUGLAS	23	8	E	15	SW	SE		King	W			1325861	782529
190053	AAY907	W092570	36		6 CHAS BOUFFIOU	23	8	E	4	NE	NE	36386	King	W	36406	1593000940	1323402	797186
670690	AHN042	AE10085	15		Chevron Conestoga- Rovers & Associates	23	8	E	9	NE	SW	40389	King	A	40417		1321974	790575
670692	AHN043	AE10085	10		Chevron Conestoga- Rovers & Associates	23	8	E	9	NE	SW	40389	King	A	40417		1321974	790575
670694		AE10085	12		Chevron Conestoga- Rovers & Associates	23	8	E	9	NE	SW	40389	King	A	40417		1321974	790575
670696		AE10085	12		Chevron Conestoga- Rovers & Associates	23	8	E	9	NE	SW	40389	King	A	40417		1321974	790575
670698		AE10085	12		Chevron Conestoga- Rovers & Associates	23	8	E	9	NE	SW	40389	King	A	40417		1321974	790575
670699	AHE331	AE10085	12		Chevron Conestoga- Rovers & Associates	23	8	E	9	NE	SW	40389	King	A	40417		1321974	790575
102318			43		6 CHICKLERO - SMITH	23	8	E	16	NE	NW	32181	King	W			1321893	786599
102323		28170	170		6 CHRIS & ELINOR MATHEWSON	23	8	E	12	SW	NE	33147	King	W			1336466	788645
713225		AE11512	57		6 Chris Scoones B & J Drilling Co.LLC	23	8	E	24	NW	NE	40617	King	A	40625	2423089053	1336284	780729
102352			120		6 CIRCLE RIVER RANCH	23	8	E	4	SE	NW	33064	King	W	33077		1322051	794567
438584	APP606	RE01458	255		6 CITY OF NORTH BEND	23	8	E	10	SE	SW	38826	King	R	38834		1327298	787771
458288	APN062	R070260	25		2 CITY OF NORTH BEND	23	8	E	10	SW	NE	38974	King	R	38999		1325981	789134
463163	APN061	WE05447	214.2		18 CITY OF NORTH BEND	23	8	E	10	SE	NE	39003	King	W	39043		1328681	789081
542321	ALL773	W212851	191		12 CITY OF NORTH BEND	23	8	E	14	NE	SE	38693	King	W	39646		1333744	784817

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Table C-1: Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
672637	BBL825	DE00976	25	30	CITY OF NORTH BEND	23	8	E	9	NW	NE	40416	King	W	40431		1320676	791948
672639	BBL826	DE00976	25	30	CITY OF NORTH BEND	23	8	E	9	NW	NE	40416	King	W	40431		1320676	791948
672641	BBL827	DE00976	25	30	CITY OF NORTH BEND	23	8	E	9	NW	NE	40416	King	W	40431		1320676	791948
672643	BBL828	DE00976	25	30	CITY OF NORTH BEND	23	8	E	9	NW	NE	40416	King	W	40431		1320676	791948
672645	BBL821	DE00976	25	30	CITY OF NORTH BEND	23	8	E	9	NW	NE	40416	King	W	40431		1320676	791948
672647	BBL822	DE00976	25	30	CITY OF NORTH BEND	23	8	E	9	NW	NE	40416	King	W	40431		1320676	791948
672649	BBL823	DE00976	25	30	CITY OF NORTH BEND	23	8	E	9	NW	NE	40416	King	W	40431		1320676	791948
672651	BBL824	DE00976	25	30	CITY OF NORTH BEND	23	8	E	9	NW	NE	40416	King	W	40431		1320676	791948
698249	BBN510	DE00967	50	30	CITY OF NORTH BEND	23	8	E	9	NW	NW	40454	King	W	40504		1319351	791993
698251	BBN511	DE00967	50	30	CITY OF NORTH BEND	23	8	E	9	NW	NW	40454	King	W	40504		1319351	791993
698253	BBN512	DE00967	50	30	CITY OF NORTH BEND	23	8	E	9	NW	NW	40454	King	W	40504		1319351	791993
698255	BBN513	DE00967	50	30	CITY OF NORTH BEND	23	8	E	9	NW	NW	40454	King	W	40504		1319351	791993
698257	BBN514	DE00967	50	30	CITY OF NORTH BEND	23	8	E	9	NW	NW	40454	King	W	40504		1319351	791993
698259	BBN515	DE00967	50	30	CITY OF NORTH BEND	23	8	E	9	NW	NW	40454	King	W	40504		1319351	791993
698292	BBL825	AE10427	25		CITY OF NORTH BEND	23	8	E	9	NW	NE	40459	King	A	40501		1320676	791948
698302	BBN507	DE00976	25	30	CITY OF NORTH BEND	23	8	E	9	NW	NE	40430	King	W	40501		1320676	791948
698304	BBN508	DE00976	25	30	CITY OF NORTH BEND	23	8	E	9	NW	NE	40430	King	W	40501		1320676	791948
698306	BBN509	DE00976	25	30	CITY OF NORTH BEND	23	8	E	9	NW	NE	40430	King	W	40501		1320676	791948
698308	BBL826	AE10427	25		CITY OF NORTH BEND	23	8	E	9	NW	NE	40459	King	A	40501		1320676	791948
698310	BBL827	AE10427	25		CITY OF NORTH BEND	23	8	E	9	NW	NE	40459	King	A	40501		1320676	791948
698312	BBL828	AE10427	25		CITY OF NORTH BEND	23	8	E	9	NW	NE	40459	King	A	40501		1320676	791948
698313	BBL821	AE10427	25		CITY OF NORTH BEND	23	8	E	9	NW	NE	40459	King	A	40501		1320676	791948
698315	BBL822	AE10427	25		CITY OF NORTH BEND	23	8	E	9	NW	NE	40459	King	A	40501		1320676	791948
698316	BBL823	AE10427	25		CITY OF NORTH BEND	23	8	E	9	NW	NE	40459	King	A	40501		1320676	791948
698318	BBL824	AE10427	25		CITY OF NORTH BEND	23	8	E	9	NW	NE	40459	King	A	40501		1320676	791948
698320	BBN507	AE10427	25		CITY OF NORTH BEND	23	8	E	9	NW	NE	40459	King	A	40501		1320676	791948
698322	BBN508	AE10427	25		CITY OF NORTH BEND	23	8	E	9	NW	NE	40459	King	A	40501		1320676	791948
698324	BBN509	AE10427	25		CITY OF NORTH BEND	23	8	E	9	NW	NE	40459	King	A	40501		1320676	791948
1921259	BKU937	RE17346	20	2	City Of North Bend	23	8	E	10	SW	NW	43549	King	R	43572		1324630	789161
735309	BCH886	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735311	BCH887	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735312	BCH888	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735314	BCH889	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735316	BCH890	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735318	BCH891	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735320	BCH892	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735322	BCH893	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735324	BCH394	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735326	BCH895	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735328	BCH896	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735330	BCH897	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735332	BCH898	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735334	BCH899	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735336	BCH960	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
735338	BCH961	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735340	BCH987	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735342	BCH988	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735344	BCH989	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735346	BCH990	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735348	BCH991	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735350	BCH992	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735352	BCH993	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735354	BCH994	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735356	BCH873	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735357	BCH874	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735359	BCH875	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735361	BCH876	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735362	BCH872	DE00953	20	10	City of North Bend~Ron Garrow	23	8	E	10	SW	NW	40242	King	W	40458		1324630	789161
735364	BCH995	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735366	BCH996	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735368	BCH878	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735370	BCH879	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735372	BCH880	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735374	BCH881	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735376	BCH882	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735378	BCH883	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735380	BCH884	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735382	BCH885	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735384	BCT251	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735386	BCT252	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735388	BCT253	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735390	BCT254	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735392	BCT255	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735394	BCT256	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735396	BCT257	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735398	BCT262	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735399	BCT263	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735401	BCT264	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735403	BCT265	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735405	BCT266	DE00954	20	10	City of North Bend~Ron Garrow	23	8	E	10	NW	SW	40242	King	W	40458		1324652	790494
735407	BCH987	AE09817	20	8	City of North Bend~Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40423	King	A	40458		1325953	787800
735409	BCH988	AE09817	20	8	City of North Bend~Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40423	King	A	40458		1325953	787800
735411	BCH989	AE09817	20	8	City of North Bend~Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40423	King	A	40458		1325953	787800

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
735412	BCH990	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40423	King	A	40458		1325953	787800
735414	BCH991	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40423	King	A	40458		1325953	787800
735416	BCH992	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40423	King	A	40458		1325953	787800
735417	BCH993	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40423	King	A	40458		1325953	787800
735419	BCH994	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40423	King	A	40458		1325953	787800
735420	BCH886	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735422	BCH887	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735424	BCH888	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735426	BCH889	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735427	BCH890	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735429	BCH891	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735430	BCH892	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735432	BCH893	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	9	NE	NE	40387	King	A	40458		1323329	791856
735434	BCH893	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40371	King	A	40458		1325953	787800
735436	BCH894	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40371	King	A	40458		1325953	787800
735438		AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735440	BCH895	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735442		AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735443	BCH896	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735445		AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40371	King	A	40458		1325953	787800
735446	BCH897	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800

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Table C-1: Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
735448	BCH898	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735450	BCH899	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40387	King	A	40458		1325953	787800
735452	BCH960	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40423	King	A	40458		1325953	787800
735454	BCH961	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40423	King	A	40458		1325953	787800
735456	BCH964	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40372	King	A	40458		1325953	787800
735458	BCH965	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40372	King	A	40458		1325953	787800
735460	BCH872	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40380	King	A	40458		1325953	787800
735462	BCH873	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40380	King	A	40458		1325953	787800
735464	BCH874	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40380	King	A	40458		1325953	787800
735466	BCH875	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40380	King	A	40458		1325953	787800
735468	BCH876	AE09817	20	8	City of North Bend~ Ron Garrow Shannon And Wilson	23	8	E	10	SW	SE	40380	King	A	40458		1325953	787800
735482	BCH995	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	SW	40388	King	A	40458		1324652	790494
735484	BCH996	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	SW	40388	King	A	40458		1324652	790494
735486	BCH979	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	SW	40371	King	A	40458		1324652	790494
735488	BCH980	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	SW	40371	King	A	40458		1324652	790494
735490	BCH981	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	SW	40371	King	A	40458		1324652	790494
735492	BCH982	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	SW	40371	King	A	40458		1324652	790494
735494	BCH878	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	SW	40387	King	A	40458		1324652	790494
735496	BCH879	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40387	King	A	40458		1324673	791824
735498	BCH880	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40387	King	A	40458		1324673	791824
735500	BCH881	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40387	King	A	40458		1324673	791824

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
735502	BCH882	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40387	King	A	40458		1324673	791824
735504	BCH883	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40387	King	A	40458		1324673	791824
735506	BCH884	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40387	King	A	40458		1324673	791824
735508	BCH885	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40387	King	A	40458		1324673	791824
735509	BCH251	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40388	King	A	40458		1324673	791824
735511	BCH252	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40388	King	A	40458		1324673	791824
735513	BCH253	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40388	King	A	40458		1324673	791824
735515	BCH254	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40388	King	A	40458		1324673	791824
735517	BCH255	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40388	King	A	40458		1324673	791824
735519	BCH256	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40388	King	A	40458		1324673	791824
735521	BCH262	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40393	King	A	40458		1324673	791824
735523	BCH263	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40393	King	A	40458		1324673	791824
735525	BCH264	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40393	King	A	40458		1324673	791824
735527	BCH265	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40393	King	A	40458		1324673	791824
735529	BCT266	AE09818	20	8	City of North Bend~ Ron Garrow Shannon and Wilson	23	8	E	10	NW	NW	40393	King	A	40458		1324673	791824
89610			117	6	CLIFFORD NICHOLS	23	9	E	7	SW	SE	29451	King	W			1341714	787136
288241				2	CLOUDS NANCOLLIAS	23	8	E	4	SW	NW		King	W			1319423	794660
1673088		WE28538	302	8	CO BILL MOFFET YERKES	23	8	E	8	SE	NW	42954	King	W	43073	823089050	1316639	789390
102523		A018184	15	6	CONNER DEVELOPMENT	23	8	E	16	NE	NE	35632	King	A	35636		1323243	786544
1792094	BJN075	RE15390	8.5	2	Conner Homes	23	8	E	15	NW	SE	43111	King	R	43171		1325905	785159
449596		A106173	14		CONVENIENCE STORE	23	8	E	9	SW	SE	38875	King	A	38916		1320568	787972
449598		A106173	14		CONVENIENCE STORE	23	8	E	9	SW	SE	38875	King	A	38916		1320568	787972
449600		A106173	14		CONVENIENCE STORE	23	8	E	9	SW	SE	38875	King	A	38916		1320568	787972
449602		A106173	14		CONVENIENCE STORE	23	8	E	9	SW	SE	38875	King	A	38916		1320568	787972
449603		A106173	14		CONVENIENCE STORE	23	8	E	9	SW	SE	38875	King	A	38916		1320568	787972
449604		S030654	14		CONVENIENCE STORE	23	8	E	9	SW	SE	38875	King	R	38916		1320568	787972
449606		S030654	14		CONVENIENCE STORE	23	8	E	9	SW	SE	38875	King	R	38916		1320568	787972
449607		S030654	14		CONVENIENCE STORE	23	8	E	9	SW	SE	38875	King	R	38916		1320568	787972
449609		S030654	14		CONVENIENCE STORE	23	8	E	9	SW	SE	38875	King	R	38916		1320568	787972

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
449611		S030654	14		CONVENIENCE STORE	23	8	E	9	SW	SE	38875	King	R	38916		1320568	787972
102647		35984	178		6 DALE SIM	23	8	E	21	NE	NW	33123	King	W			1321799	781340
102657			19		6 DAN DAVIS	23	8	E	3	NW	SE	33802	King	W	33807		1326082	795794
102694		W043505	300		6 DANE MCKIBBEN	23	8	E	16	SE	SE	34570	King	W	34589		1323176	782594
102720		43410	62		6 DARYL HATLING	23	8	E	12	SE	NW	34684	King	W	34726		1337799	788602
102721			49		6 DARYL HETLING	23	8	E	12	SW	SW	30559	King	W	30706		1335109	787386
102774			52		6 DAVID ECK	23	8	E	12	SE	NW	31846	King	W			1337799	788602
102775			40		6 DAVID ELLIOTT	23	8	E	8	SE	NW	31104	King	W			1316639	789390
102818			43		6 DENIS FURY	23	8	E	16	SE	SW	29586	King	W	29606		1321839	782652
102824			400		6 DENNIS HYLTIME	23	8	E	16	NW	SE	29453	King	W	30259		1320528	785338
1597623	BJR515	RE13377	15		4 Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	R	42657	2700600265	1321974	790575
1597624	BJR516	RE13377	15		4 Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	R	42657	2700600265	1321974	790575
1597667	BJR517	RE13377	15		4 Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	R	42657	2700600265	1321974	790575
1597680	BJR521	RE13377	15		4 Dept Of Natural Resources	23	8	E	9	NE	SW	42640	King	R	42657	2700600265	1321974	790575
1706733	BJR521	AE43271	15		2 Dept Of Natural Resources	23	8	E	9	NE	SW	42857	King	A	42998	2700600265	1321974	790575
1706734	BJR515	AE43271	15		2 Dept Of Natural Resources	23	8	E	9	NE	SW	42857	King	A	42998	2700600265	1321974	790575
1706777	BJR517	AE43271	15		2 Dept Of Natural Resources	23	8	E	9	NE	SW	42857	King	A	42998	2700600265	1321974	790575
1706780	BJR516	AE43271	15		2 Dept Of Natural Resources	23	8	E	9	NE	SW	42857	King	A	42998	2700600265	1321974	790575
288337			46		6 DIAMOND CONSTRUCTION	23	8	E	3	SW	SE		King	W			1326058	793137
102867			22		6 DIANE WEIBLING	23	8	E	4	NW	NW		King	W			1319486	797330
102885					28 DICK NORMAN	23	8	E	15	NE	NW	22837	King	W			1327267	786443
102886			18		28 DICK NORMAN	23	8	E	15	NE	NW		King	W			1327267	786443
1709398	BIY660	WE26817	35.6		6 Dirk Nevelle	23	8	E	3	SW	NW	43118	King	W	43119	323089160	1324707	794489
102896		209651			6 DNR NORTH BEND	23	8	E	9	NE	SW	34081	King	W	34087		1321974	790575
109507	ABN207	R004361			9 DON GRINA	23	8	E	9	NE	SE	34845	King	R	34862		1323307	790526
109508	ABN208	R004361			9 DON GRINA	23	8	E	9	NE	SE	34845	King	R	34862		1323307	790526
109509	ABN209	R004361			9 DON GRINA	23	8	E	9	NE	SE	34845	King	R	34862		1323307	790526
109510	ABN210	R004361			9 DON GRINA	23	8	E	9	NE	SE	34845	King	R	34862		1323307	790526
445431	AEM283	W128676	179		6 DON HAND	23	9	E	7	SE	SE	37645	King	W	38573		1344296	787083
102923			30		6 DON HAROLD	23	8	E	15	SE	NW	33811	King	W	33805		1327225	783817
305399		A018188			DON WESTERLUND CONSTRUCTION	23	8	E	15	NE	SE	36944	King	A	36976		1328588	785101
102959			6		30 DON WHITNEY	23	8	E	16	SW	SE		King	W			1320500	782709
102960			7		30 DON WHITNEY	23	8	E	16	SW	SE	22871	King	W			1320500	782709
102973		12454	25		8 DONALD DOUGLASS	23	8	E	24	NE	NW	32400	King	W			1337610	780665
342819	AAY218	W092586	101		6 DONALD HAND	23	9	E	7	SE	SE	36532	King	W	36537		1344296	787083
327248		A032946			DONNA SWALL	23	8	E	13	SW	NW		King	A	36683		1335020	783429
103022			415		6 DOYLE PEARSON / ROBERT SIMS	23	8	E	16	SW	SE	30573	King	W	30706		1320500	782709
103024					36 DR. ALAN NOURSE	23	8	E	8	NE	NE	22881	King	W			1318018	792020
103025			9		36 DR. ALAN NOURSE	23	8	E	8	NE	NE		King	W			1318018	792020
103051			41		6 DWIGHT LEONARD	23	8	E	3	SE	SW	30830	King	W			1327424	793116
288429			37		6 E. J. ROBERTS	23	8	E	10	SW	SE		King	W			1325953	787800
288444			9		36 E. W. PURSER	23	8	E	15	NW	SW		King	W			1324566	785188
103071			10		36 E.H. DAVIS	23	8	E	3	NE	SW	22881	King	W			1327445	795770
288445					30 EAGLE LODGE	23	8	E	10	SE	SW		King	W			1327298	787771
91060			99		6 EDWARD CORVINO	23	9	E	7	SE	SW	30123	King	W			1343004	787109
103135			120		6 EDWARD KNAPP	23	8	E	3	NW	SW	27324	King	W			1324721	795819
348958			140		8 EMILLIE M & SHELDON F SHEPARD	23	8	E	14	NW	NE	24532	King	W			1331205	786284
1919148	BIT607	WE30552	776		8 ERIN & DAVID MCCALLUM	23	8	E	16	SW	SE	43698	King	W	43712	162308910	1320500	782709
288478			23		30 ERNEST JACOBS	23	8	E	15	SE	NE		King	W			1328568	783790
1591879		AE38910	10		2 Estate Of Florence Kirschenmann	23	8	E	3	SW	NE	42601	King	A	42627		1326070	794467
103231			40		6 EVA PIERCE	23	8	E	15	SE	NE	32065	King	W			1328568	783790
103233					30 EVEREN NELSON	23	8	E	15	SW	NE	22840	King	W			1325884	783844
103234			6		30 EVEREN NELSON	23	8	E	15	SW	NE		King	W			1325884	783844
103245		65548	300		6 EVERSON TOM & TAMI	23	8	E	13	SE	SW	33149	King	W			1337642	781981
442728		S028113	100		7 EWING STRINFELLOW	23	8	E	10	SE	SE	38800	King	R	38867	102308-9031	1328639	787739
442753		S028113	80		7 EWING STRINFELLOW	23	8	E	10	SE	SE	38800	King	R	38867	102308-9031	1328639	787739
442755		S028113	100		7 EWING STRINFELLOW	23	8	E	10	SE	SE	38800	King	R	38867	102308-9031	1328639	787739
483784	AER196	R052757	81		2 EWING STRINFELLOW	23	8	E	10	SE	SE	38797	King	R	39226	102308-9031	1328639	787739
103248			40		6 EWING STRINGFELLOW	23	8	E	11	SW	SW	28089	King	W			1329952	787633

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
487531	AER196	A083312	35		EWING STRINGFELLOW	23	8	E	10	SE	SE	39231	King	A	39251	1023089031	1328639	787739
103381					36 F. E. KNOWLES	23	8	E	15	NE	NE	22865	King	W			1328608	786411
103382			24		36 F. E. KNOWLES	23	8	E	15	NE	NE		King	W			1328608	786411
467437		S027873	24		FACTORY STORE	23	8	E	9	SE	NW	38749	King	R	38994		1321943	789248
467571		A101833	24		FACTORY STORE	23	8	E	9	SE	NW	38749	King	A	38994		1321943	789248
288709					18 FCEP MASON	23	8	E	10	NE	SW		King	W			1327366	790445
103463			97		6 FLOYD SCHOENBAUM	23	8	E	24	NE	NW	29247	King	W			1337610	780665
111206	ACS601	R028440			FORSTER WOODS TOWNHOMES	23	8	E	8	SE	SE		King	R	35653		1317901	788058
111207	ACS602	R028440			FORSTER WOODS TOWNHOMES	23	8	E	8	SE	SE	35629	King	R	35653		1317901	788058
111208	ACS603	R028440			FORSTER WOODS TOWNHOMES	23	8	E	8	SE	SE	35629	King	R	35653		1317901	788058
111209	ACS604	R028440			FORSTER WOODS TOWNHOMES	23	8	E	8	SE	SE		King	R	35653		1317901	788058
111231	ACS654	R028440			FORSTER WOODS TOWNHOMES	23	8	E	8	SE	SE		King	R	35653		1317901	788058
111232	ACS655	R028440			FORSTER WOODS TOWNHOMES	23	8	E	8	SE	SE		King	R	35653		1317901	788058
103514					33 FRANK ANDERSON	23	8	E	5	SE	NW	22881	King	W			1316736	794694
103515			9		33 FRANK ANDERSON	23	8	E	5	SE	NW		King	W			1316736	794694
103517					4 FRANK BARKER	23	8	E	5	NW	SW	22880	King	W			1314052	796048
103518			127		4 FRANK BARKER	23	8	E	5	NW	SW		King	W			1314052	796048
103521			28		6 FRANK CORNICK	23	8	E	4	NE	NE	33852	King	W	33858		1323402	797186
288798					FRANK LAATSCH	23	8	E	10	NW	SE		King	W			1326010	790470
288799					36 FRANK LAATSCH	23	8	E	10	NW	SE		King	W			1326010	790470
103532					33 FRANK MARSOLAIS	23	8	E	5	SE	NE	22881	King	W			1318088	794685
103533			10		33 FRANK MARSOLAIS	23	8	E	5	SE	NE		King	W			1318088	794685
190496	AEM253	W092560	62		6 FRANK MCFADDEN	23	8	E	5	NE	SW	36165	King	W	36325		1316764	796030
103535					FRANK PADARICH	23	8	E	10	SW	SE		King	W			1325953	787800
103537			14		30 FRANK R.J. ERNKK II	23	8	E	3	SW	NW		King	W			1324707	794489
103551			49		6 FRED FISHER	23	8	E	10	SW	NW	29147	King	W	29175		1324630	789161
288848					G. MARTINDALE	23	8	E	3	SW	NE		King	W			1326070	794467
103627			60		8 GARY ANDERSON	23	8	E	13	SE	SE	28618	King	W			1338966	781917
103647			53		6 GARY LUDWICK	23	8	E	16	SE	SW	31918	King	W	32534		1321839	782652
940109	BBM626	WE16342	212		6 GAVIN YOST	23	9	E	18	SE	NW	41509	King	W	41548	1823099062	1342878	783160
589702	BBE913	RE03248	45.6		GEO ENGINEERS BOART LONGYEAR	23	8	E	9	NE	NW	39911	King	R	39952		1322004	791901
349956		R054849	60		GEOENGINEERS	23	8	E	13	SE	SE	37585	King	R	37634		1338966	781917
335197	AHE325	R061674	12		GEOENGINEERS INC	23	8	E	9	NE	SE	37397	King	R	37428		1323307	790526
335198	AHE326	R061674	12		GEOENGINEERS INC	23	8	E	9	NE	SE	37397	King	R	37428		1323307	790526
335199	AHE327	R061674	12		GEOENGINEERS INC	23	8	E	9	NE	SE	37397	King	R	37428		1323307	790526
335200	AHE328	R061674	12		GEOENGINEERS INC	23	8	E	9	NE	SE	37397	King	R	37428		1323307	790526
335201	AHE329	R061674	12		GEOENGINEERS INC	23	8	E	9	NE	SE	37397	King	R	37428		1323307	790526
335202	AHE330	R061674	12		GEOENGINEERS INC	23	8	E	9	NE	SE	37397	King	R	37428		1323307	790526
335203	AHE331	R061674	12		GEOENGINEERS INC	23	8	E	9	NE	SE	37397	King	R	37428		1323307	790526
478052		A128570	12		GEORG WYVSCH DLH ENVIRO CONSULTANTS	23	8	E	9	NE	SW	39153	King	A	39167		1321974	790575
478053		A128570	12		GEORG WYVSCH DLH ENVIRO CONSULTANTS	23	8	E	9	NE	SW	39153	King	A	39167		1321974	790575
478054		A128570	16		GEORG WYVSCH DLH ENVIRO CONSULTANTS	23	8	E	9	NE	SW	39153	King	A	39167		1321974	790575
478063		A128571	8		GEORG WYVSCH DLH ENVIRO CONSULTANTS	23	8	E	9	NE	SW	39153	King	A	39167		1321974	790575
478064		A128571	8		GEORG WYVSCH DLH ENVIRO CONSULTANTS	23	8	E	9	NE	SW	39153	King	A	39167		1321974	790575
478065		A128571	8		GEORG WYVSCH DLH ENVIRO CONSULTANTS	23	8	E	9	NE	SW	39153	King	A	39167		1321974	790575
478066		A128571	8		GEORG WYVSCH DLH ENVIRO CONSULTANTS	23	8	E	9	NE	SW	39153	King	A	39167		1321974	790575
478067		A128571	12		GEORG WYVSCH DLH ENVIRO CONSULTANTS	23	8	E	9	NE	SW	39153	King	A	39167		1321974	790575

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Table C-1: Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
478068		A128571	12		GEORG WYVVSCH DLH ENVIRO CONSULTANTS	23	8	E	9	NE	SW	39153	King	A	39167		1321974	790575
336395	ABG442	W128681	38	6	GEORGE BROWN	23	8	E	3	NW		37376	King	W	37455		1325409	796471
109332	ABG442	W043422	38	6	GEORGE JR. BRAAN	23	8	E	3	NW	NW	34746	King	W	34781		1324735	797150
103734			39	6	GEORGE LITTLEWOOD	23	8	E	5	SE	NW	30412	King	W			1316736	794694
103735					GEORGE MACRIS	23	8	E	3	SW	NE		King	W			1326070	794467
478049		E006675	12		GEORGE WYVVSCH DLH	23	8	E	9	NE	SW	39153	King	R	39167		1321974	790575
478050		E006675	12		GEORGE WYVVSCH DLH	23	8	E	9	NE	SW	39153	King	R	39167		1321974	790575
478051		E006675	16		GEORGE WYVVSCH DLH	23	8	E	9	NE	SW	39153	King	R	39167		1321974	790575
478057		S030022	8		GEORGE WYVVSCH DLH ENVIRONMENTAL CONS	23	8	E	9	NE	SW	39153	King	R	39167		1321974	790575
478058		S030022	8		GEORGE WYVVSCH DLH ENVIRONMENTAL CONS	23	8	E	9	NE	SW	39153	King	R	39167		1321974	790575
478059		S030022	8		GEORGE WYVVSCH DLH ENVIRONMENTAL CONS	23	8	E	9	NE	SW	39153	King	R	39167		1321974	790575
478060		S030022	8		GEORGE WYVVSCH DLH ENVIRONMENTAL CONS	23	8	E	9	NE	SW	39153	King	R	39167		1321974	790575
478061		S030022	12		GEORGE WYVVSCH DLH ENVIRONMENTAL CONS	23	8	E	9	NE	SW	39153	King	R	39167		1321974	790575
478062		S030022	12		GEORGE WYVVSCH DLH ENVIRONMENTAL CONS	23	8	E	9	NE	SW	39153	King	R	39167		1321974	790575
288919					GORDON WILLIAMSON	23	8	E	15	NE	SE		King	W			1328588	785101
103827			240	6	GRANT TOLLETH	23	8	E	8	SE	SW	32044	King	W	32174		1316619	788071
111507	AEE517	R028724			GREW RESIDENCE	23	8	E	9	NE	SE	35908	King	R	35941		1323307	790526
111508	AEE518	R028724			GREW RESIDENCE	23	8	E	9	NE	SE	35908	King	R	35941		1323307	790526
111509	AEE519	R028724			GREW RESIDENCE	23	8	E	9	NE	SE	35908	King	R	35941		1323307	790526
111510	AEE520	R028724			GREW RESIDENCE	23	8	E	9	NE	SE	35909	King	R	35941		1323307	790526
288926					GREW RESIDENCE	23	8	E	9	NE	SE		King	R			1323307	790526
288927					GREW RESIDENCE	23	8	E	9	NE	SE		King	R			1323307	790526
288928					GREW RESIDENCE	23	8	E	9	NE	SE		King	R			1323307	790526
288929					GREW RESIDENCE	23	8	E	9	NE	SE		King	R			1323307	790526
288930					GREW RESIDENCE	23	8	E	9	NE	SE		King	R			1323307	790526
103937			29	6	H. L. ROBINSON	23	8	E	16	NW	SE	30505	King	W			1320528	785338
289003			24	36	H. M. BLAKE MAN	23	8	E	15	NE	NE		King	W			1328608	786411
289051			199	8	HIGHLINE SCHOOL DIST. #401	23	8	E	13	SW	SW		King	W			1334990	782106
343767	AGA219	W161830	440	6	IAN SLATER	23	8	E	16	SW	SE	37508	King	W	37552	162308-9087	1320500	782709
104249				33	J. A. FRITTS	23	8	E	4	SW	NE	22882	King	W			1320737	794614
1561357		AE37137	44	6	Jack Kenney	23	8	E	15	NE	NW	42485	King	A	42496	1523089269	1327267	786443
104347		16894		6	JAMES WESTLAKE	23	8	E	10	NW	SE	33438	King	W			1326010	790470
1598868		AE39631	38	6	JARED KNELLEKEN - QUADRANT CO JARED KNELLEKEN	23	8	E	15	SE	SW	42645	King	A	42692	1523089219	1327204	782505
1598887		AE39632	18	24	JARED KNELLEKEN - QUADRANT CO JARED KNELLEKEN	23	8	E	15	SE	SW	42645	King	A	42692	1523089163	1327204	782505
1600860		AE39630	40	8	JARED KNELLEKEN - QUADRANT CO JARED KNELLEKEN	23	8	E	15	SE	SW	42645	King	A	42688	1523089174	1327204	782505

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Table C-1: Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
1610851		AE40911	38	6	JARED QUADRANT CO KNELLEKEN	23	8	E	15	SE	NW	42733	King	A	42787	1523089048	1327225	783817
1610853		AE40910	30	6	JARED QUADRANT CO KNELLEKEN	23	8	E	15	SE	NW	42733	King	A	42787	1523089048	1327225	783817
104360			60	8	JAY SAYRAHDER	23	8	E	10	SE	NE	28919	King	W	28998		1328681	789081
368358	AHG934	WE01293	178	6	JAY SCROGGS	23	8	E	16	SE	SE	37862	King	W	37876	1623089150	1323176	782594
438458	APR051	W189464	420	6	JEFF RAZWICK	23	8	E	21	NE	SE	38791	King	W	38845	8835800100	1323061	779990
1312917		AE35280	13	36	Jeffrey & Cheryl Novitsky	23	8	E	3	NW	SE	42375	King	A	42396	32308901506	1326082	795794
484643	APF252	WE06753	40	6	JEFFREY HARGETT	23	8	E	3	SW	SW	39240	King	W	39253	9123100021	1324691	793157
104395		219176	25	6	JEROME KLACSON	23	8	E	4	NE	SE	34129	King	W	34131		1323385	795853
110033	ABZ051	56645	29	6	JEROME KLACSON	23	8	E	4	NE	SE	34796	King	W	34806		1323385	795853
110035	ABZ098	56697	29	6	JEROME KLACSON	23	8	E	4	NE	SE	34800	King	W	34806		1323385	795853
110648	ACG893	W053791	30	6	JEROME KLACSON	23	8	E	4	NE	SW	35314	King	W	35321		1322075	795901
110649	ACG894	W053790	30	6	JEROME KLACSON	23	8	E	4	NE	SW	35314	King	W	35321		1322075	795901
1681686	AKO091	W252313	41	6	JERRY BLAIR	23	8	E	4	SW	NW	43136	King	W	43143	5418700075	1319423	794660
93151			80	6	JIM CORVINO	23	9	E	7	SE	SW	31189	King	W	31282		1343004	787109
304411	AEP812	W125636	105	6	JIM DOYLE	23	8	E	8	SE	SE	36830	King	W	36860		1317901	788058
104484			35	6	JIM NELSON	23	8	E	3	SW	SE	30733	King	W	31404		1326058	793137
1902182		AE53362	39	6	JM KNELLEKEN CO	23	8	E	15	NE	SW	43558	King	A	43572	1523089119	1327246	785131
289181			12	30	JOE JENKINS	23	8	E	15	SW	NE		King	W			1325884	783844
646930	BAA886	WE11128	50	6	John & Kim Welk	23	8	E	5	SE	NW	40241	King	W	40287	523089028	1316736	794694
289183			15	35	JOHN ANTONE	23	8	E	15	NE	NE		King	W			1328608	786411
93515		W114410	24	6	JOHN BOYCE	23	8	E	4	NE	NE	36243	King	W	36276		1323402	797186
467305		S027878	49		JOHN DAY HOMES	23	8	E	4	NE	SE	38771	King	R	38994		1323385	795853
467438		A101831	49		JOHN DAY HOMES	23	8	E	4	NE	SE	38771	King	A	38994		1323385	795853
906917		SE50137	17	8	John Day Homes, Inc	23	8	E	14	SE	NE	41600	King	R	41655	1423089095	1333717	783495
906940		SE50137	17	8	John Day Homes, Inc	23	8	E	14	SE	NE	41600	King	R	41655	1423089095	1333717	783495
906943		SE50137	17	8	John Day Homes, Inc	23	8	E	14	SE	NE	41600	King	R	41655	1423089095	1333717	783495
907029		SE50137	17	8	John Day Homes, Inc	23	8	E	14	SE	NE	41600	King	R	41655	1423089095	1333717	783495
907046		SE50137	17	8	John Day Homes, Inc	23	8	E	14	SE	NE	41600	King	R	41655	1423089095	1333717	783495
104581			300	6	JOHN GENSON	23	8	E	13	NW	SW	33997	King	W	34026		1335052	784752
289189			50	8	JOHN HENSON	23	8	E	10	SW	SW		King	W			1324611	787828
104622				30	JOHN PECCARO	23	8	E	15	SE	NE	22838	King	W			1328568	783790
104623			18	30	JOHN PECCARO	23	8	E	15	SE	NE		King	W			1328568	783790
1760474		AE49674	20	36	John Rouches	23	8	E	4	SW	SW	43271	King	A	43292	5418700060	1319390	793323
1024699		AE32202	7	36	Jonathan Brunaugh - Jonathan Brunaugh	23	8	E	10	NW	NE	42152	King	A	42160	1023089079	1326039	791805
844032	BHJ021	WE15676	44.3	6	JOSH AND BRIANA KLIMP RICHARDSON WELL DRILLING	23	8	E	3	NW	SE	41302	King	W	41327	323089041	1326082	795794
1403819	AEM285	WE23142	32	6	Kassandra Mitchell	23	8	E	4	NE	NE	42408	King	W	42412	423089033	1323402	797186
406244		A060992	9	2	KEITH MICKLE	23	8	E	9	NE	SE	38135	King	A	38456		1323307	790526
406245		A060992	9	2	KEITH MICKLE	23	8	E	9	NE	SE	38135	King	A	38456		1323307	790526
406246		A060992	9	2	KEITH MICKLE	23	8	E	9	NE	SE	38135	King	A	38456		1323307	790526
406247		A060992	9	2	KEITH MICKLE	23	8	E	9	NE	SE	38135	King	A	38456		1323307	790526
406248		A060992	9	2	KEITH MICKLE	23	8	E	9	NE	SE	38135	King	A	38456		1323307	790526
406249		E004380	9	2	KEITH MICKLE	23	8	E	9	NE	SE	38135	King	R	38456		1323307	790526
406250		E004380	9	2	KEITH MICKLE	23	8	E	9	NE	SE	38135	King	R	38456		1323307	790526
406251		E004380	9	2	KEITH MICKLE	23	8	E	9	NE	SE	38135	King	R	38456		1323307	790526
406252		E004380	9	2	KEITH MICKLE	23	8	E	9	NE	SE	38135	King	R	38456		1323307	790526
406253		E004380	9	2	KEITH MICKLE	23	8	E	9	NE	SE	38135	King	R	38456		1323307	790526
394269		A071872	15	30	KEITH NAVIDI	23	8	E	10	NW	NE	38327	King	A	38331		1326039	791805
416694	ALA625	W189670	38	6	KEITH NAVIDI	23	8	E	10	NE	NW	38552	King	W	38579		1327402	791783
104734		W108010	37	6	KEN & NANCY PARSONS	23	8	E	15	SW	NW	36103	King	W	36117		1324541	783872
1595984		AE38144	16	1.25	Kendall and Kevin Dreher	23	8	E	3	SE	NW	42587	King	A	42656	323089047	1327435	794444
1595983		AE37955	10	1.25	Kendall Dreher	23	8	E	3	SE	NW	42587	King	A	42656	323089115	1327435	794444
289295	AFJ077		207	8	KENNETH D. ROGERS	23	8	E	24	NE	NE	27801	King	W	27934		1338936	780600
104771				30	KENNETH HILL	23	8	E	15	SE	NE	22839	King	W			1328568	783790
104772			37	30	KENNETH HILL	23	8	E	15	SE	NE		King	W			1328568	783790
386173		A064921	16	36	KIMBERLY HOWDE	23	8	E	16	SW	SE	38023	King	A	38240	162308-9109-08	1320500	782709
561294	AKG088	W252312	404	6	KIMBERLY HOWDE	23	8	E	16	SW	SE	39561	King	W	39765	1623089109	1320500	782709
318572		S007558	30		KING CO DES	23	9	E	18	SE	NE	37109	King	R	37134		1344161	783140
442723		S028100	100	7	KING CO PARKS AND REC	23	8	E	14	NW		38798	King	R	38867		1330551	785661

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
442725		S028100	100	7	KING CO PARKS AND REC	23	8	E	14	NW		38798	King	R	38867		1330551	785661
442727	AER197	R052760	30	2	KING CO PARKS AND REC	23	8	E	14	NW		38804	King	R	38867		1330551	785661
442757		R052760	30	2	KING CO PARKS AND REC	23	8	E	14	NW		38804	King	R	38867		1330551	785661
506762	AER197	A083317	30		KING CO PARKS AND REC	23	8	E	14	NW	NW	39356	King	A	39364		1329921	786357
347296		S000029	100		KING CO WATER AND LAND RESOURCES DI	23	8	E	10	SE	SE	37558	King	R	37581		1328639	787739
347297		S000029	100		KING CO WATER AND LAND RESOURCES DI	23	8	E	10	SE	SE	37558	King	R	37581		1328639	787739
347298		S000029	100		KING CO WATER AND LAND RESOURCES DI	23	8	E	10	SE	SE	37558	King	R	37581		1328639	787739
289374			13	36	KING CO. PARKS	23	8	E	9	SE	NE		King	W			1323286	789197
104875					KING COUNTY	23	8	E	9	SE	NW		King	W	33683		1321943	789248
575586		SE03859	23		KING COUNTY	23	9	E	18	SE	NW	39833	King	R	39854	N/A	1342878	783160
575589		SE03859	23		KING COUNTY	23	9	E	18	SE	NW	39833	King	R	39854	N/A	1342878	783160
575599		SE03860	51.5		KING COUNTY	23	9	E	19	NE	NW	39834	King	R	39854	N/A	1342792	780525
589424	BBK534	RE03200	24	10	King County	23	8	E	9	NE	NW	39902	King	R	39969	Roadway	1322004	791901
545967		SE02884	21.5		KING COUNTY GEO ENGINEERS	23	8	E	10	NW	SW	39672	King	R	39693	8570900302	1324652	790494
545968		SE02886	21.5		KING COUNTY GEO ENGINEERS	23	8	E	9	NE	NE	39672	King	R	39693	8570900302	1323329	791856
552822		SE03093	12		KING COUNTY GEO ENGINEERS	23	9	E	19	NW	NW	39706	King	R	39728	N/A ROADWAY ROW	1340236	780561
552823		SE03092	21.5		KING COUNTY GEO ENGINEERS	23	8	E	24	NE	NE	39702	King	R	39728	N/A ROADWAY ROW	1338936	780600
552825		SE03091	8		KING COUNTY GEO ENGINEERS	23	8	E	24	NE	NW	39702	King	R	39728	N/A ROADWAY ROW	1337610	780665
552826		SE03090	7		KING COUNTY GEO ENGINEERS	23	8	E	13	SW	SE	39706	King	R	39728	N/A ROADWAY ROW	1336316	782045
552827		SE03089	17		KING COUNTY GEO ENGINEERS	23	8	E	14	SE	NE	39702	King	R	39728	N/A ROADWAY ROW	1333717	783495
552828		SE03088	15.5		KING COUNTY GEO ENGINEERS	23	8	E	13	NW	SW	39703	King	R	39728	N/A ROADWAY ROW	1335052	784752
552829		SE03088	3		KING COUNTY GEO ENGINEERS	23	8	E	13	NW	SW	39703	King	R	39728	N/A ROADWAY ROW	1335052	784752
552833		SE03088	14.5		KING COUNTY GEO ENGINEERS	23	8	E	13	NW	SW	39703	King	R	39728	N/A ROADWAY ROW	1335052	784752
552834		SE03088	17.5		KING COUNTY GEO ENGINEERS	23	8	E	13	NW	SW	39703	King	R	39728	N/A ROADWAY ROW	1335052	784752
552835		SE03087	4		KING COUNTY GEO ENGINEERS	23	8	E	13	SE	SE	39702	King	R	39728	N/A ROADWAY ROW	1338966	781917
552836		SE03086	6		KING COUNTY GEO ENGINEERS	23	8	E	13	SE	SW	39702	King	R	39728	N/A ROADWAY ROW	1337642	781981
552838		SE03084	4		KING COUNTY GEO ENGINEERS	23	8	E	13	SW	NW	39701	King	R	39728	N/A ROADWAY ROW	1335020	783429
552839		SE03084	8		KING COUNTY GEO ENGINEERS	23	8	E	13	SW	NW	39703	King	R	39728	N/A ROADWAY ROW	1335020	783429
552840		SE03083	7		KING COUNTY GEO ENGINEERS	23	8	E	14	SW	NE	39701	King	R	39728	N/A ROADWAY ROW	1331159	783644
552841		SE03082	16		KING COUNTY GEO ENGINEERS	23	8	E	14	NW	SW	39701	King	R	39728	N/A ROADWAY ROW	1329900	785038
552842		SE03082	13		KING COUNTY GEO ENGINEERS	23	8	E	14	NW	SW	39701	King	R	39728	N/A ROADWAY ROW	1329900	785038
552843		SE03081	11		KING COUNTY GEO ENGINEERS	23	8	E	15	NE	SE	39700	King	R	39728	N/A ROADWAY ROW	1328588	785101
552844		SE03081	11		KING COUNTY GEO ENGINEERS	23	8	E	15	NE	SE	39700	King	R	39728	N/A ROADWAY ROW	1328588	785101
552845		SE03080	11		KING COUNTY GEO ENGINEERS	23	8	E	15	NE	NE	39701	King	R	39728	N/A ROADWAY ROW	1328608	786411
552846		SE03080	16		KING COUNTY GEO ENGINEERS	23	8	E	15	NE	NE	39701	King	R	39728	N/A ROADWAY ROW	1328608	786411
552848		SE03075	16.5		KING COUNTY GEO ENGINEERS	23	8	E	10	SW	SW	39701	King	R	39728	N/A	1324611	787828
552849		SE03074	16		KING COUNTY GEO ENGINEERS	23	8	E	10	SW	NW	39701	King	R	39728	N/A	1324630	789161
552851		SE03074	21		KING COUNTY GEO ENGINEERS	23	8	E	10	SW	NW	39701	King	R	39728	N/A	1324630	789161
552853		SE03069	18		KING COUNTY GEO ENGINEERS	23	8	E	10	SE	SE	39700	King	R	39728	N/A	1328639	787739
552854		SE03069	17		KING COUNTY GEO ENGINEERS	23	8	E	10	SE	SE	39700	King	R	39728	N/A	1328639	787739
552857	BAR333	RE02623	20	10	KING COUNTY GEO ENGINEERS	23	8	E	10	SW	SE	39706	King	R	39728	N/A ROADWAY ROW	1325953	787800
980476		AE27403	21	6	King County C/O Rhine Demolition	23	8	E	4	NE	SE	41813	King	A	41904	1593000380	1323385	795853
780673	BHC867	RE06538	30		KING COUNTY DEP OF NATURAL RESOURCE GEOENGINEERS	23	8	E	16	NE	NE	40863	King	R	40966	ROW	1323243	786544

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Table C-1: Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
780675	BHC866	RE06538	20		KING COUNTY DEP OF NATURAL RESOURCE GEOENGINEERS	23	8	E	16	NE	NE	40863	King	R	40966	ROW	1323243	786544
780677	BHC864	RE06536	30		KING COUNTY DEP OF NATURAL RESOURCE GEOENGINEERS	23	8	E	9	SW	SE	40862	King	R	40966	ROW	1320568	787972
780679	BHC865	RE06537	30		KING COUNTY DEP OF NATURAL RESOURCE GEOENGINEERS	23	8	E	9	SW	SE	40862	King	R	40966	ROW	1320568	787972
780681		AE15508	30		KING COUNTY DEP OF NATURAL RESOURCE GEOENGINEERS	23	8	E	16	NE	NE	40861	King	A	40966	ROW	1323243	786544
780683		AE15508	30		KING COUNTY DEP OF NATURAL RESOURCE GEOENGINEERS	23	8	E	16	NE	NE	40861	King	A	40966	ROW	1323243	786544
876310		SE47892	41.5		King County DOT	23	8	E	16	SE	SW	41431	King	R	41506		1321839	782652
876312		SE47892	41.5		King County DOT	23	8	E	16	SE	SW	41431	King	R	41506		1321839	782652
876314		SE47892	30.5		King County DOT	23	8	E	16	SE	SW	41431	King	R	41506		1321839	782652
876316		AE21397	41.5		King County DOT	23	8	E	16	SE	SW	41431	King	A	41506		1321839	782652
876318		AE21397	41.5		King County DOT	23	8	E	16	SE	SW	41431	King	A	41506		1321839	782652
876320		AE21397	30.5		King County DOT	23	8	E	16	SE	SW	41431	King	A	41506		1321839	782652
795068		SE44862	10		King County Parks Div	23	8	E	4	NE	NW	40983	King	R	41060		1322096	797233
795070		SE44862	7.5		King County Parks Div	23	8	E	4	NE	NW	40983	King	R	41060		1322096	797233
795072		SE44862	12.5		King County Parks Div	23	8	E	4	NE	NW	40983	King	R	41060		1322096	797233
795074		SE44862	10		King County Parks Div	23	8	E	4	NE	NW	40983	King	R	41060		1322096	797233
795108		AE16736	10		King County Parks Div	23	8	E	4	NW	NE	40983	King	A	41060		1320790	797281
795110		AE16736	7.5		King County Parks Div	23	8	E	4	NW	NE	40983	King	A	41060		1320790	797281
795112		AE16736	12.5		King County Parks Div	23	8	E	4	NW	NE	40983	King	A	41060		1320790	797281
795114		AE16736	10		King County Parks Div	23	8	E	4	NW	NE	40983	King	A	41060		1320790	797281
304413		A049316			6 KMS HOMES	23	8	E	15	NW	SE	36718	King	A	36887		1325905	785159
315370	AFP204	W150612	59		6 KMS HOMES	23	8	E	15	NW	SE	37048	King	W	37140	152308-9220-03	1325905	785159
478664	ALK956	W251807	600		6 KMS HOMES	23	8	E	22	NW	SW	38943	King	W	39206	8835800160	1324398	779952
104952					33 L. J. CAUFER	23	8	E	15	SE	SE	22873	King	W			1328548	782479
104953			23		33 L. J. CAUFER	23	8	E	15	SE	SE		King	W			1328548	782479
104956			15		36 L. O. RAASCH	23	8	E	15	SE	NW		King	W			1327225	783817
104957			16		36 L. O. RAASCH	23	8	E	15	SE	NW	22839	King	W			1327225	783817
348959			47		8 LAND SALES CO	23	8	E	23	NE	NE	23138	King	W			1333782	780859
348960			112		8 LAND SALES CO	23	8	E	23	NE	NE	22865	King	W			1333782	780859
1710568		AE46948	49		8 Landmark Pacific Group LLC	23	8	E	10	SW	SW	43118	King	A	43138		1324611	787828
94477			93		6 LARRY MOONEYHAM	23	9	E	7	SE	SW	28752	King	W	28790		1343004	787109
94484			102		6 LARRY PAASCH	23	9	E	7	SE	SE	33023	King	W	33060		1344296	787083
468505	APP782	WE06041	60		6 LENARD BENSON	23	8	E	15	SW	SW	39077	King	W	39118	920007	1324518	782554
468506	APP783	WE06056	52		6 LENARD BENSON	23	8	E	15	SW	NE	39081	King	W	39118	920007	1325884	783844
105102		36003	140		6 LEROY BERGSTROM	23	8	E	21	NE	NW	33170	King	W	33175		1321799	781340
927119		AE24943	12.5		6 Lisa Stevens	23	8	E	22	NW	NW	42004	King	A	41780		1324470	781247
927142		AE24943	12.5		6 Lisa Stevens	23	8	E	22	NW	NW	41639	King	A	41780		1324470	781247
1007821		SE50131	12.5		6 Lisa Stevens	23	8	E	22	NW	NW	41639	King	R	41780		1324470	781247
1007864		SE50131	12.5		6 Lisa Stevens	23	8	E	22	NW	NW	41639	King	R	41780		1324470	781247
105157					6 LOEIS KIRSCHNER	23	8	E	15	NE	NE	22866	King	W			1328608	786411
105158			30		6 LOEIS KIRSCHNER	23	8	E	15	NE	NE		King	W			1328608	786411
105161			36		6 LOLA SMITH	23	8	E	10				King	W			1326676	789798
1571046		AE37583	38		6 Lori Becker	23	8	E	14	SW	SW	42532	King	A	42541	1423089078	1329858	782397
1055294	BIT624	WE18461	40		6 Luiza Dixon - Luiza Dixon	23	8	E	15	SE	NE	42146	King	W	42257	1523089275	1328568	783790
105214			40		6 LYLE OR LOLA SMITH	23	8	E	10			32094	King	W			1326676	789798
1006276		AE30852	175		8 Lynn and Gale Miner	23	8	E	13	NE	NE	42058	King	A	42082	5547550010	1339082	785885
684439	BAA627	W267712	180		6 LYNN BRECHTEL	23	8	E	8	SE	NW	40431	King	W	40471	823089039	1316639	789390
1667226	BKL777	GE00746	35		9 Manoj Dipankar	23	8	E	9	SE	NE	43012	King	R	43031		1323286	789197
105272			40		6 MARGARETT MORRISON	23	8	E	15	SE	NW	31421	King	W	31446		1327225	783817
105314		29112	55		8 MARTIN BORDELON	23	8	E	5	SE	NE	33338	King	W	33368		1318088	794685
304410	AFJ840	W127882	22		6 MARTIN FULLER	23	8	E	4	NW	SE	36837	King	W	36850		1320763	795948
105316		W074661	40		6 MARTIN GUY	23	8	E	3	SW		35571	King	W	35573		1325381	793812
286361			105		6 MCELROY BRIEN	23	9	E	7	SW	SE		King	W			1341714	787136
105469			99		6 MICHAEL HAMILTON	23	8	E	12	SE	SE	30417	King	W	30438		1339112	787215

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Table C-1: Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
927111		AE25350	15		6 Micheal Sciacqua	23	8	E	16	NE	SE	41666	King	A	41780		1323221	785228
927151		AE25350	15		6 Micheal Sciacqua	23	8	E	16	NE	SE	41666	King	A	41780		1323221	785228
1008163		SE50426	15		6 Micheal Sciacqua	23	8	E	16	NE	SE	41666	King	R	41780		1323221	785228
1008234		SE50426	15		6 Micheal Sciacqua	23	8	E	16	NE	SE	41666	King	R	41780		1323221	785228
110198	ACB314	W066083	23		6 MIKE AIKEN	23	8	E	4	SE	NE	35006	King	W	35011		1323365	794521
105514			60		6 MIKE DICKMAN	23	8	E	3	NW	SW	30330	King	W			1324721	795819
289672			36		6 MIKE WILLS - NANCY HUTTO	23	8	E	4	NE	NW		King	W			1322096	797233
105563			43		8 MILTON & IDA ALYEA	23	8	E	14	NE	SW	21073	King	W			1332464	784890
105564			96		8 MILTON ALYEA	23	8	E	14	NE	SW	32290	King	W			1332464	784890
1901364	BLE669		0		3 MONTSON ESTATE	23	8	E	12		0	43556	King	W	43577	1223089035	1337157	789280
289704			14		36 MR AVERY	23	8	E	10	SE	SE		King	W			1328639	787739
105621			20		6 MR. BILL LAATSCH	23	8	E	10	NW	SW	29455	King	W	29459		1324652	790494
105685					MRS E. J. BOWMAN	23	8	E	15	NE	SE	22721	King	W			1328588	785101
105686			32		6 MRS E. J. BOWMAN	23	8	E	15	NE	SE		King	W			1328588	785101
289714			8		27 MRS HELGESON	23	8	E	15	SW	NE		King	W			1325884	783844
105696			49		33 MRS. DEE HAWK	23	8	E	15	SE	NW	22828	King	W			1327225	783817
289718					MT. SI MFG.	23	8	E	4	NW	SW		King	R			1319455	795994
289719					MT. SI MFG.	23	8	E	4	NW	SW		King	R			1319455	795994
289720					MT. SI MFG.	23	8	E	4	NW	SW		King	R			1319455	795994
289721					MT. SI MFG.	23	8	E	4	NW	SW		King	R			1319455	795994
289722					MT. SI MFG.	23	8	E	4	NW	SW		King	R			1319455	795994
289723					MT. SI MFG.	23	8	E	4	NW	SW		King	R			1319455	795994
289724					MT. SI MFG.	23	8	E	4	NW	SW		King	R			1319455	795994
289725					MT. SI MFG.	23	8	E	4	NW	SW		King	R			1319455	795994
289726					MT. SI MFG.	23	8	E	4	NW	SW		King	R			1319455	795994
289727					MT. SI MFG.	23	8	E	4	NW	SW		King	R			1319455	795994
289728					MT. SI MFG.	23	8	E	4	NW	SW		King	R			1319455	795994
289729					9 MT. SI. SLVD.	23	8	E	9	SW	SE		King	R			1320568	787972
289730					9 MT. SI. SLVD.	23	8	E	9	SW	SE		King	R			1320568	787972
289731					9 MT. SI. SLVD.	23	8	E	9	SW	SE		King	R			1320568	787972
289732					9 MT. SI. SLVD.	23	8	E	9	SW	SE		King	R			1320568	787972
289742			22		36 N. L. BOYD	23	8	E	10	SE	SE		King	W			1328639	787739
105767		219179	25		6 NANCY HUTTO	23	8	E	4	SE	NW	34127	King	W	34131		1322051	794567
105786			50		6 NEIL MCCULLOGH	23	8	E	8	SE	SW	31287	King	W			1316619	788071
505286	APF273	WE06823	50		6 NELS AND ANNE MELGAARD	23	8	E	3	SW	NE	39339	King	W	39394	323089021	1326070	794467
329720		A045739	13		36 NEW LIFE CHRISTIAN CENTER	23	8	E	10	NW	NW	37302	King	A	37326		1324673	791824
796932		SE43413	46		New Sky LLC Stantec Consulting Corp	23	8	E	9	NW	SE	40766	King	R	41074		1320640	790624
796934		SE43413	21		New Sky LLC Stantec Consulting Corp	23	8	E	9	NW	SE	40766	King	R	41074		1320640	790624
796936		AE14303	46		New Sky LLC Stantec Consulting Corp	23	8	E	9	NW	SE	40766	King	A	41074		1320640	790624
796938		AE14303	21		New Sky LLC Stantec Consulting Corp	23	8	E	9	NW	SE	40766	King	A	41074		1320640	790624
682670		SE08110	30		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	R	40459		1319264	789348
682672		SE08110	30		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	R	40459		1319264	789348
682674		SE08110	30		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	R	40459		1319264	789348
682676		SE08110	30		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	R	40459		1319264	789348
682678		SE08110	30		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	R	40459		1319264	789348
682680		SE08110	20		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	R	40459		1319264	789348
682682		AE10690	30		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	A	40459		1319264	789348
682684		AE10690	30		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	A	40459		1319264	789348
682686		AE10690	30		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	A	40459		1319264	789348
682690		AE10690	30		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	A	40459		1319264	789348
682692		AE10690	30		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	A	40459		1319264	789348
682698		AE10690	20		8 Nintendo of America Pan Geo	23	8	E	9	SW	NW	40434	King	A	40459		1319264	789348
105823			25		6 NORMAN & CINDY WALLACE	23	8	E	10	NE	SW	30949	King	W	30953		1327366	790445
559879	AKM847	R066808	73		2 NORTH BEND	23	8	E	14	NE	SE	38644	King	R	39646		1333744	784817
289775			19		30 NORTH BEND 1-24	23	8	E	15	NE	NW		King	W			1327267	786443
530450	BAS162	R070960	20		NORTH BEND 76 STATION AEG	23	8	E	9	NE	SE	39527	King	R	39549		1323307	790526

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
530451	BAS163	R070960	20		NORTH BEND 76 STATION AEG	23	8	E	9	NE	SE	39527	King	R	39549		1323307	790526
530452	BAS164	R070960	20		NORTH BEND 76 STATION AEG	23	8	E	9	NE	SE	39527	King	R	39549		1323307	790526
530454	BAS165	R070960	20		NORTH BEND 76 STATION AEG	23	8	E	9	NE	SE	39527	King	R	39549		1323307	790526
530455	BAS161	R070960	20		NORTH BEND 76 STATION AEG	23	8	E	9	NE	SE	39527	King	R	39549		1323307	790526
508189		E008034	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	R	39400	923089009	1323307	790526
508190		E008034	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	R	39400	923089009	1323307	790526
508191		E008034	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	R	39400	923089009	1323307	790526
508193		E008034	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	R	39400	923089009	1323307	790526
508194		E008034	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	R	39400	923089009	1323307	790526
508195		E008034	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	R	39400	923089009	1323307	790526
508196		A130760	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	A	39400	923089009	1323307	790526
508197		A130760	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	A	39400	923089009	1323307	790526
508198		A130760	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	A	39400	923089009	1323307	790526
508199		A130760	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	A	39400	923089009	1323307	790526
508201		A130760	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	A	39400	923089009	1323307	790526
508202		A130760	12		NORTH BEND GASOLINE INC AEG	23	8	E	9	NE	SE	39379	King	A	39400	923089009	1323307	790526
574882	BBA725	RE02858	18		North Bend Gasoline Inc SLR International Corp	23	8	E	9	SE	NE	39787	King	R	39822	923089009	1323286	789197
574883	BBA726	RE02858	19		North Bend Gasoline Inc SLR International Corp	23	8	E	9	SE	NE	39787	King	R	39822	923089009	1323286	789197
574884	BBA727	RE02858	20		North Bend Gasoline Inc SLR International Corp	23	8	E	9	SE	NE	39787	King	R	39822	923089009	1323286	789197
574885	BBA728	RE02858	20		North Bend Gasoline Inc SLR International Corp	23	8	E	9	SE	NE	39787	King	R	39822	923089009	1323286	789197
581091		EE00965	10		North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	R	39923	923089009	1323329	791856
581092		EE00965	10		North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	R	39923	923089009	1323329	791856
581093		EE00965	10		North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	R	39923	923089009	1323329	791856
581094		EE00965	10		North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	R	39923	923089009	1323329	791856
581095		EE00965	10		North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	R	39923	923089009	1323329	791856
581097		EE00965	10		North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	R	39923	923089009	1323329	791856
581098		EE00965	10		North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	R	39923	923089009	1323329	791856
581099		EE00965	10		North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	R	39923	923089009	1323329	791856
581100		EE00965	10		North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	R	39923	923089009	1323329	791856
581101		EE00965	15		North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	R	39923	923089009	1323329	791856

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Table C-1: Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
581102		AE05548	10	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	A	39923	923089009	1323329	791856
581103		AE05548	10	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	A	39923	923089009	1323329	791856
581104		AE05548	10	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	A	39923	923089009	1323329	791856
581106		AE05548	10	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	A	39923	923089009	1323329	791856
581107		AE05548	10	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	A	39923	923089009	1323329	791856
581108		AE05548	10	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	A	39923	923089009	1323329	791856
581109		AE05548	10	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	A	39923	923089009	1323329	791856
581110		AE05548	10	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	A	39923	923089009	1323329	791856
581111		AE05548	10	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	A	39923	923089009	1323329	791856
581112		AE05548	15	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	A	39923	923089009	1323329	791856
581113		SE04260	10	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	R	39923	923089009	1323329	791856
581114		AE05547	10	2	North Bend Gasoline Inc SLR International Corp.	23	8	E	9	NE	NE	39905	King	A	39923	923089009	1323329	791856
640782		EE01325	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	R	40238	923089009	1323307	790526
640784		EE01325	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	R	40238	923089009	1323307	790526
640786		EE01325	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	R	40238	923089009	1323307	790526
640788		EE01325	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	R	40238	923089009	1323307	790526
640790		EE01325	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	R	40238	923089009	1323307	790526
640792		EE01325	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	R	40238	923089009	1323307	790526
640794		EE01325	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	R	40238	923089009	1323307	790526
640796		EE01325	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	R	40238	923089009	1323307	790526
640798		AE08326	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	A	40238	923089009	1323307	790526
640800		AE08326	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	A	40238	923089009	1323307	790526
640802		AE08326	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	A	40238	923089009	1323307	790526
640804		AE08326	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	A	40238	923089009	1323307	790526

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
640806		AE08326	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	A	40238	923089009	1323307	790526
640808		AE08326	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	A	40238	923089009	1323307	790526
640810		AE08326	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	A	40238	923089009	1323307	790526
640812		AE08326	12	2	North Bend Gasoline Inc. Environmental Partners~ Inc.	23	8	E	9	NE	SE	40220	King	A	40238	923089009	1323307	790526
603534	BCS419	RE03519	20	3.25	North Bend Gasoline~ Inc SLR International Corp	23	8	E	9	NE	SE	40001	King	R	40022	923089009	1323307	790526
603536	BCS420	RE03519	20	3.25	North Bend Gasoline~ Inc SLR International Corp	23	8	E	9	NE	SE	40001	King	R	40022	923089009	1323307	790526
603538	BCS421	RE03519	20	3.25	North Bend Gasoline~ Inc SLR International Corp	23	8	E	9	NE	SE	40001	King	R	40022	923089009	1323307	790526
603540	BCS422	RE03519	20	3.25	North Bend Gasoline~ Inc SLR International Corp	23	8	E	9	NE	SE	40001	King	R	40022	923089009	1323307	790526
603542	BCS423	RE03519	20	3.25	North Bend Gasoline~ Inc SLR International Corp	23	8	E	9	NE	SE	40001	King	R	40022	923089009	1323307	790526
603544	BCS424	RE03519	20	3.25	North Bend Gasoline~ Inc SLR International Corp	23	8	E	9	NE	SE	40001	King	R	40022	923089009	1323307	790526
603546	BCS425	RE03519	20	3.25	North Bend Gasoline~ Inc SLR International Corp	23	8	E	9	NE	SE	40001	King	R	40022	923089009	1323307	790526
603548	BCS426	RE03519	20	3.25	North Bend Gasoline~ Inc SLR International Corp	23	8	E	9	NE	SE	40001	King	R	40022	923089009	1323307	790526
712618	BCM993	RE05457	20	8.25	North Bend Gasoline~ Inc Terra Associates	23	8	E	9	NE	SE	40574	King	R	40590	923089009	1323307	790526
712620	BCM994	RE05457	15	8.25	North Bend Gasoline~ Inc Terra Associates	23	8	E	9	NE	SE	40574	King	R	40590	923089009	1323307	790526
712622	BCM995	RE05457	20	8.25	North Bend Gasoline~ Inc Terra Associates	23	8	E	9	NE	SE	40575	King	R	40590	923089009	1323307	790526
712624	BCM996	RE05457	20	8.25	North Bend Gasoline~ Inc Terra Associates	23	8	E	9	NE	SE	40575	King	R	40590	923089009	1323307	790526
712625	BCM997	RE05457	25	8.25	North Bend Gasoline~ Inc Terra Associates	23	8	E	9	NE	SE	40575	King	R	40590	923089009	1323307	790526
574880		SE03737	20	8	North Bend Gasoline~ Inc. c/o SLR SLR International	23	8	E	9	SE	NE	39787	King	R	39822		1323286	789197
574881		AE04963	20	8	North Bend Gasoline~ Inc. c/o SLR SLR International	23	8	E	9	SE	NE	39787	King	A	39822		1323286	789197
105850		R027858			NORTH BEND M. W.	23	8	E	9	SW	NE		King	R	35530		1320605	789298
1706650	BKP322	RE14384	13.5	4.25	North Bend Premium Outlets	23	8	E	9	SW	NE	42880	King	R	42998		1320605	789298
1706674		SE62265	20	4.25	North Bend Premium Outlets	23	8	E	9	SW	NE	42880	King	R	42998		1320605	789298
105851		R036863			NORTH BEND SEWERS	23	8	E	9				King	R	35929		1321294	789925
511139		R036837	13		NORTH BEND TEXACO G&S SERVICES	23	8	E	9	NE	SW	35470	King	R	35929		1321974	790575
1701305	BJW500	RE14055	25	2	North Bend Wastewater Treatment Plant	23	8	E	4	SE	SW	42803	King	R	43122		1322027	793234
1746958	BJW500	RE14055	25	2	North Bend Wastewater Treatment Plant	23	8	E	4	SE	SW	42803	King	R	43060		1322027	793234
491344		S023277	14	9	NORTH BEND~ CITY OF GEODESIGN	23	8	E	9	NE	SW	39265	King	R	39276		1321974	790575
491345		A129873	14	9	NORTH BEND~ CITY OF GEODESIGN	23	8	E	9	NE	SW	39265	King	A	39276		1321974	790575

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
475360		S030518	61.5		NORTHWEST RAILWAY MUSEUM	23	8	E	5	NW	NE	39150	King	R	39174	523089048	1315434	797375
475361		S030518	51.5		NORTHWEST RAILWAY MUSEUM	23	8	E	5	NW	NE	39150	King	R	39174	523089048	1315434	797375
105904				30	OLIVER PARSONS	23	8	E	15	SE	SE	22839	King	W			1328548	782479
105905			20	30	OLIVER PARSONS	23	8	E	15	SE	SE		King	W			1328548	782479
105906				40	OLIVER PARSONS	23	8	E	15	SE	SE	22839	King	W			1328548	782479
105907			17	40	OLIVER PARSONS	23	8	E	15	SE	SE		King	W			1328548	782479
105924		A002554			OLYMPIC PIPELINE	23	8	E	9	SW	NW	35657	King	A	35670		1319264	789348
95954			68	6	ORLAND ANDERSON	23	9	E	7	SW	SE	29689	King	W			1341714	787136
95955		7077	91	6	ORLAND ANDERSON	23	9	E	7	SW	SE	32411	King	W	32419		1341714	787136
105948			40	8	ORR POTEBNYA	23	8	E	10	NE	NE	29090	King	W	29178		1328766	791763
416557	APM204	WE04019	39	6	ORR POTEBNYA	23	8	E	10	NE	NE	38573	King	W	38576	1.02309E+11	1328766	791763
105955			8	36	OTTO MUELLER	23	8	E	15	SE	NE	22839	King	W			1328568	783790
289819			13	36	OTTO MUELLER	23	8	E	15	SE	NE		King	W			1328568	783790
289835				8	P S P & L NORTH BEND	23	8	E	14	NE	SE		King	R			1333744	784817
289836				8	P S P & L NORTH BEND	23	8	E	14	NE	SE		King	R			1333744	784817
95977		41330	88	6	P. CONDIT / JIM STRODE CONC.	23	9	E	18	NW	SE	34016	King	W	34338		1341640	784500
105976					P. G. QUITSLUNDS	23	8	E	3	NE	NE	22880	King	W			1328817	797069
105977			11	30	P. G. QUITSLUNDS	23	8	E	3	NE	NE		King	W			1328817	797069
759334		SE44124	60	6	Pacific Pride C/o Maul Maul	23	8	E	24	NE	NE	40843	King	R	40869		1338936	780600
759336		SE44124	20	6	Pacific Pride C/o Maul Maul	23	8	E	24	NE	NE	40843	King	R	40869		1338936	780600
759338		SE44124	20	6	Pacific Pride C/o Maul Maul	23	8	E	24	NE	NE	40843	King	R	40869		1338936	780600
759340		SE44124	20	6	Pacific Pride C/o Maul Maul	23	8	E	24	NE	NE	40843	King	R	40869		1338936	780600
759342		AE15505	60	6	Pacific Pride C/o Maul Maul	23	8	E	24	NE	NE	40843	King	A	40869		1338936	780600
759344		AE15505	20	6	Pacific Pride C/o Maul Maul	23	8	E	24	NE	NE	40843	King	A	40869		1338936	780600
759346		AE15505	20	6	Pacific Pride C/o Maul Maul	23	8	E	24	NE	NE	40843	King	A	40869		1338936	780600
759348		AE15505	20	6	Pacific Pride C/o Maul Maul	23	8	E	24	NE	NE	40843	King	A	40869		1338936	780600
1403671		GE00474	220	5.5	Peter Murphy - Murphy	23	8	E	16	SW	SE	41616	King	R	42374	1723089005	1320500	782709
1403691		GE00474	220	5.5	Peter Murphy - Murphy	23	8	E	16	SW	SE	41616	King	R	42374	1723089005	1320500	782709
1403715		GE00474	220	5.5	Peter Murphy - Murphy	23	8	E	16	SW	SE	41616	King	R	42374	1723089005	1320500	782709
1403716		GE00474	220	5.5	Peter Murphy - Murphy	23	8	E	16	SW	SE	41616	King	R	42374	1723089005	1320500	782709
1403761		GE00474	220	5.5	Peter Murphy - Murphy	23	8	E	16	SW	SE	41616	King	R	42374	1723089005	1320500	782709
1403763		GE00474	220	5.5	Peter Murphy - Murphy	23	8	E	16	SW	SE	41616	King	R	42374	1723089005	1320500	782709
1403765		GE00474	220	5.5	Peter Murphy - Murphy	23	8	E	16	SW	SE	41616	King	R	42374	1723089005	1320500	782709
1403803		GE00474	220	5.5	Peter Murphy - Murphy	23	8	E	16	SW	SE	41616	King	R	42374	1723089005	1320500	782709
1403804		GE00474	220	5.5	Peter Murphy - Murphy	23	8	E	16	SW	SE	41616	King	R	42374	1723089005	1320500	782709
1403820		GE00474	220	5.5	Peter Murphy - Murphy	23	8	E	16	SW	SE	41616	King	R	42374	1723089005	1320500	782709
106136			37	6	PETER HAMMOND	23	8	E	8	SE	NW	31891	King	W	31988		1316639	789390
110199	ACB315	W066085	31	6	PIONEER HOMES INC.	23	8	E	4	NE	SE	35009	King	W	35011		1323385	795853
106215		48797	37	6	PLEASANTS GARY & DONNA	23	8	E	15	SE	NW	33646	King	W	33686		1327225	783817
106216		48797	38	6	PLEASANTS GARY & DONNA	23	8	E	15	SE	NW	33647	King	W	33686		1327225	783817
291776		48798	38	6	PLEASANTS GARY & DONNA	23	8	E	15	SE	NW	33647	King	W			1327225	783817
1616530	BJU363	RE13924	15	2	Polygon WLH LLC	23	8	E	5	SE	SE	42779	King	R	42814		1318055	793350
1616558	BJU364	RE13924	15	2	Polygon WLH LLC	23	8	E	5	SE	SE	42779	King	R	42814		1318055	793350
1884134		AE52753	11	36	PRIVATE CLIENT	23	8	E	9	NE	SW	43468	King	A	43495		1321974	790575
1884139		AE52752	15	2	PRIVATE CLIENT	23	8	E	9	NE	SW	43468	King	A	43495		1321974	790575
374262	AHN042	R065477	15	8	PRIVATE HOME	23	8	E	9	NE	SW	37970	King	R	38001		1321974	790575
374263	AHN043	R065477	10	8	PRIVATE HOME	23	8	E	9	NE	SW	37970	King	R	38001		1321974	790575
529301		A130208	60	2	PUGET WESTERN GEO ENGINEERS	23	8	E	24	NE	NE	39541	King	A	39554		1338936	780600
1249461	ABO569	AE34724	27	6	Pulte Homes Of Washington	23	8	E	10	NW	NE	42320	King	A	42375		1326039	791805
1599685		AE38409	38	6	PULTE HOMES OF WASHINGTON	23	8	E	10	NW	SE	42570	King	A	42713	1.02309E+11	1326010	790470

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625926		SE05532	9	2	QFC c/o SLR International Corp. SLR International Corp.	23	8	E	9	NE	SE	40074	King	R	40102		1323307	790526
625928		SE05532	9	2	QFC c/o SLR International Corp. SLR International Corp.	23	8	E	9	NE	SE	40074	King	R	40102		1323307	790526
625930		AE07229	9	2	QFC c/o SLR International Corp. SLR International Corp.	23	8	E	9	NE	SE	40074	King	A	40102		1323307	790526
625932		AE07229	9	2	QFC c/o SLR International Corp. SLR International Corp.	23	8	E	9	NE	SE	40074	King	A	40102		1323307	790526
625934		AE07229	9	2	QFC c/o SLR International Corp. SLR International Corp.	23	8	E	9	NE	SE	40074	King	A	40102		1323307	790526
1624593		AE40912	0	0	QUADRANT C/O JERED KNELLEKEN	23	8	E	15	SE	NW	42501	King	A	42874	1523089271	1327225	783817
1691881	BJN799	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691882	BJN777	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691883	BJN798	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691884	BJN793	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691885	BJN783	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691886	BJN600	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691887	BJN784	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691888	BJN599	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691889	BKM771	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691890	BKM768	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691891	BKM765	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691892	BKM762	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691893	BKM760	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691894	BKM759	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691895	BKM772	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691896	BKM769	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691897	BKM770	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691898	BKM766	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691899	BKM767	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691900	BKM763	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691901	BKM764	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691902	BKM760	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1691903	BKM761	DE02132	30	36	Quadrant Corp	23	8	E	15	NE	SW	43140	King	W	43161		1327246	785131
1713466	BKM760	AE49214	30	36	Quadrant Corp	23	8	E	15	NE	SW	43242	King	A	43269		1327246	785131
1713471	BKM759	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713472	BKM760	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713473	BKM761	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713475	BKM762	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713476	BKM763	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713477	BKM764	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713478	BKM765	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713479	BKM766	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713480	BKM767	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713481	BKM771	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713482	BKM772	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713484	BKM768	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713485	BKM769	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1713486	BKM770	AE49214	40	36	Quadrant Corp	23	8	E	15	NE	SW	43244	King	A	43269		1327246	785131
1682945	BKC793	AE46889	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43112	King	A	43132		1327246	785131
1682946	BKC794	AE46889	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43112	King	A	43132		1327246	785131
1682947	BKC795	AE46889	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43112	King	A	43132		1327246	785131
1682948	BKC796	AE46889	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43112	King	A	43132		1327246	785131
1682949	BKC797	AE46889	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43112	King	A	43132		1327246	785131
1682950	BKC771	AE46804	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43111	King	A	43132		1327246	785131
1682951	BKC772	AE46804	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43111	King	A	43132		1327246	785131
1682952	BKC773	AE46804	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43111	King	A	43132		1327246	785131
1682953	BKC774	AE46804	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43111	King	A	43132		1327246	785131
1682954	BKC775	AE46804	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43111	King	A	43132		1327246	785131
1682955	BKC776	AE46804	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43111	King	A	43132		1327246	785131
1682956	BKC777	AE46804	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43111	King	A	43132		1327246	785131
1682957	BKC778	AE46804	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43111	King	A	43132		1327246	785131
1682958	BKC779	AE46804	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43111	King	A	43132		1327246	785131
1682959	BKC780	AE46804	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43111	King	A	43132		1327246	785131
1682960	BKC501	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43108	King	W	43132		1327246	785131
1682961	BKC502	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43108	King	W	43132		1327246	785131
1682962	BKC503	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43108	King	W	43132		1327246	785131
1682963	BKC504	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43108	King	W	43132		1327246	785131
1682964	BKC505	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43108	King	W	43132		1327246	785131
1682965	BKC506	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43108	King	W	43132		1327246	785131
1682966	BKC507	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43108	King	W	43132		1327246	785131
1682967	BKC508	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43108	King	W	43132		1327246	785131
1682970	BKC793	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43102	King	W	43132		1327246	785131
1682971	BKC794	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43102	King	W	43132		1327246	785131
1682972	BKC795	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43102	King	W	43132		1327246	785131

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
1682973	BKC796	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43102	King	W	43132		1327246	785131
1682974	BKC797	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43102	King	W	43132		1327246	785131
1683162	BKC501	AE47003	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43119	King	A	43132		1327246	785131
1683163	BKC502	AE47003	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43119	King	A	43132		1327246	785131
1683164	BKC503	AE47003	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43119	King	A	43132		1327246	785131
1683165	BKC504	AE47003	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43119	King	A	43132		1327246	785131
1683166	BKC505	AE47003	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43119	King	A	43132		1327246	785131
1683167	BKC506	AE47003	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43119	King	A	43132		1327246	785131
1683168	BKC507	AE47003	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43119	King	A	43132		1327246	785131
1683169	BKC508	AE47003	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43119	King	A	43132		1327246	785131
1683170	BKC771	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43090	King	W	43132		1327246	785131
1683171	BKC772	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43090	King	W	43132		1327246	785131
1683172	BKC773	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43090	King	W	43132		1327246	785131
1683173	BKC774	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43090	King	W	43132		1327246	785131
1683174	BKC775	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43090	King	W	43132		1327246	785131
1683175	BKC776	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43090	King	W	43132		1327246	785131
1683176	BKC777	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43090	King	W	43132		1327246	785131
1683177	BKC778	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43090	King	W	43132		1327246	785131
1683178	BKC779	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43090	King	W	43132		1327246	785131
1683179	BKC780	DE02114	13	1.5	Quadrant Homes	23	8	E	15	NE	SW	43090	King	W	43132		1327246	785131
608221	BBL379	RE03478	13.5	8.25	Quality Food Centers~ Inc SLR International Corp	23	8	E	9	NE	SE	39994	King	R	40022	8570900255	1323307	790526
608223	BBL396	RE03478	18	8.25	Quality Food Centers~ Inc SLR International Corp	23	8	E	9	NE	SE	39994	King	R	40022	8570900255	1323307	790526
608225	BBL397	RE03478	18	8.25	Quality Food Centers~ Inc SLR International Corp	23	8	E	9	NE	SE	39994	King	R	40022	8570900255	1323307	790526
608227	BBL398	RE03478	13	8.25	Quality Food Centers~ Inc SLR International Corp	23	8	E	9	NE	SE	39994	King	R	40022	8570900255	1323307	790526
608229	BBL399	RE03478	18	8.25	Quality Food Centers~ Inc SLR International Corp	23	8	E	9	NE	SE	39994	King	R	40022	8570900255	1323307	790526
608231	BBL400	RE03478	18	8.25	Quality Food Centers~ Inc SLR International Corp	23	8	E	9	NE	SE	39994	King	R	40022	8570900255	1323307	790526
106402			14	8	R. E. ROGERS	23	8	E	23	NW	SE	22874	King	W			1331082	779717
106409			16	24	R. M. BARRETT	23	8	E	15	NE	NW	22837	King	W			1327267	786443
106410			19	24	R. M. BARRETT	23	8	E	15	NE	NW		King	W			1327267	786443
106444				8	RALPH CEMCE	23	8	E	15	NE	SE	22838	King	W			1328588	785101
106445			45	8	RALPH CEMCE	23	8	E	15	NE	SE		King	W			1328588	785101
604293	A064706		13	54	RALPH KOPLIN	23	8	E	3	SW	SW	40017	King	A	40028	9123100020	1324691	793157
96435			31	6	RALPH RILEY	23	9	E	7	SE	SE	29434	King	W			1344296	787083
106472			52	6	RANDY RAUSCHMIER	23	8	E	15	NE	NW	29356	King	W			1327267	786443
106473			52	6	RANYD AUSCHMIER	23	8	E	15	NE	NW	29357	King	W			1327267	786443
1710427	AE46790		30	4	Rash And Associates 47	23	8	E	9	SW	SE	43103	King	A	43126	923089060	1320568	787972
1710464	AE46790		30	4	Rash And Associates 47	23	8	E	9	SW	SE	43103	King	A	43126	923089060	1320568	787972
1710465	AE46790		30	4	Rash And Associates 47	23	8	E	9	SW	SE	43103	King	A	43124	923089060	1320568	787972
394191	AEM285	W128678	33	6	RAYMOND DAMAZO	23	8	E	4	NE	NE	37286	King	W	38328		1323402	797186
106518			21	6	REED SIMONS	23	8	E	3	SW	NE	32618	King	W	32624		1326070	794467
97509	W066049		235	8	Renny Lillejord	23	9	E	19	NW	NW	35102	King	W	35128		1340236	780561
106632			35	6	RICHMOND DANTES	23	8	E	8	SE			King	W			1317275	788729
106662			62	8	RIVER BEND ASSOC.	23	8	E	23	NE	NW	29829	King	W			1332466	780943
106665			60	8	RIVERBEND HOME SITES ASSOC.	23	8	E	23	NE	NE	27108	King	W			1333782	780859
1746812	BKN022	DE02081	25	30	Rivers West Development	23	8	E	9	NE	NW	42992	King	W	43048		1322004	791901
1746814	BKN017	DE02081	25	30	Rivers West Development	23	8	E	9	NE	NW	42997	King	W	43048		1322004	791901
1746830	BKN018	DE02081	25	12	Rivers West Development	23	8	E	9	NE	NW	42994	King	W	43048		1322004	791901
1746836	BKN021	DE02081	25	30	Rivers West Development	23	8	E	9	NE	NW	42993	King	W	43048		1322004	791901
1746838	BKN020	DE02081	25	30	Rivers West Development	23	8	E	9	NE	NW	42992	King	W	43048		1322004	791901
1746842	BKN019	DE02081	25	30	Rivers West Development	23	8	E	9	NE	NW	42996	King	W	43048		1322004	791901
379232	AHT404	W177607	26.3	6	ROBERT AND SHELLY BENES	23	8	E	16	SE	SW	38089	King	W	38110		1321839	782652
106726			10	48	ROBERT SIM	23	8	E	15	SE	NE	22839	King	W			1328568	783790
106727			25	48	ROBERT SIM	23	8	E	15	SE	NE		King	W			1328568	783790
106728			332	6	ROBERT SIMS	23	8	E	16	SW	SE	30196	King	W	30523		1320500	782709
111271	ACV794	W098958	38	6	ROBERT VAN WINKLE	23	8	E	23	NW	SW	35691	King	W	35697		1329767	779798
235911	ACV794	W127755	328	6	ROBERT VAN WINKLE	23	8	E	23	NW	SW	36669	King	W	36678	232308	1329767	779798

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735297	BCT272	DE00926	20	10	Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40242	King	W	40458		1323307	790526
735299	BCT273	DE00926	20	10	Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40242	King	W	40458		1323307	790526
735301	BCT274	DE00926	20	10	Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40242	King	W	40458		1323307	790526
735303	BCT275	DE00926	20	10	Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40242	King	W	40458		1323307	790526
735305	BCT276	DE00926	20	10	Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40242	King	W	40458		1323307	790526
735307	BCT277	DE00926	20	10	Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40242	King	W	40458		1323307	790526
735470	BCT267	AE09966			Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40394	King	A	40458		1323307	790526
735472	BCT268	AE09966			Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40394	King	A	40458		1323307	790526
735474	BCT269	AE09966			Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40394	King	A	40458		1323307	790526
735476	BCT271	AE09966			Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40394	King	A	40458		1323307	790526
735478		AE09966			Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40394	King	A	40458		1323307	790526
735480	BCT272	AE09966			Ron Garrow City of North Bend Shannon and Wilson	23	8	E	10	NW	SW	40394	King	A	40458		1324652	790494
737941	BCT271	AE09966			Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NE	SE	40394	King	A	40458		1323307	790526
852924	BCH991	AE09967	20	8	Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NW	SE	40423	King	A	41379		1320640	790624
852926	BCH870	DE00927	20	8	Ron Garrow City of North Bend Shannon and Wilson	23	8	E	9	NW	SE	40373	King	W	41379		1320640	790624
97333			180	6	RONALD ANGER	23	9	E	18	NE	NE	29224	King	W			1344265	785773
106867			38	6	ROY SCOTT	23	8	E	16	SE	NW	30390	King	W			1321857	783967
106957				50	SALLAL GERRGE	23	8	E	15	NE	NE	22865	King	W			1328608	786411
106958			35	50	SALLAL GERRGE	23	8	E	15	NE	NE		King	W			1328608	786411
97507				8	SALLAL WATER DISTRICT	23	9	E	18	SW	SE	32045	King	W	32051		1341548	781861
106976			237	6	SAM FORRESTER	23	8	E	13				King	W			1337029	783999
1708728	APP783	AE47640	52	6	SARA SLATTEN	23	8	E	15	SW	NE	43160	King	A	43249	1523089137	1325884	783844
373162		A068547	20	2	SCHULTZ DISTRIBUTING	23	8	E	4	NW	SW	37866	King	A	37991		1319455	795994
452437		A084722	24	2	SCHULTZ DISTRIBUTING	23	8	E	4	NW	NW	38932	King	A	38944		1319486	797330
452439		A084722	24	2	SCHULTZ DISTRIBUTING	23	8	E	4	NW	NW	38932	King	A	38944		1319486	797330
452441		A084722	22	2	SCHULTZ DISTRIBUTING	23	8	E	4	NW	NW	38932	King	A	38944		1319486	797330
452442		A084722	12	2	SCHULTZ DISTRIBUTING	23	8	E	4	NW	NW	38932	King	A	38944		1319486	797330
452444		A084722	22	2	SCHULTZ DISTRIBUTING	23	8	E	4	NW	NW	38932	King	A	38944		1319486	797330
452446		E006261	21	2	SCHULTZ DISTRIBUTING	23	8	E	4	NW	NW	38932	King	R	38944		1319486	797330
452448		E006261	24	2	SCHULTZ DISTRIBUTING	23	8	E	4	NW	NW	38932	King	R	38944		1319486	797330
452450		E006261	22	2	SCHULTZ DISTRIBUTING	23	8	E	4	NW	NW	38932	King	R	38944		1319486	797330

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well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
452452		E006261	2	2	SCHULTZ DISTRIBUTING	23	8	E	4	NW	NW	38932	King	R	38944		1319486	797330
452454		E006261	22	2	SCHULTZ DISTRIBUTING	23	8	E	4	NW	NW	38932	King	R	38944		1319486	797330
507681		G045602	212		SEAN DILLON	23	8	E	14	SW	NE	39373	King	R	39433		1331159	783644
507682		G045602	214		SEAN DILLON	23	8	E	14	SW	NE	39374	King	R	39433		1331159	783644
507683		G045602	211		SEAN DILLON	23	8	E	14	SW	NE	39375	King	R	39433		1331159	783644
327225		A047579	15		SECOR INTERNATIONAL	23	8	E	9	NE	SW	36642	King	A		36664	1321974	790575
327226		A047579	15		SECOR INTERNATIONAL	23	8	E	9	NE	SW	36642	King	A		36664	1321974	790575
327269		A047579	15		SECOR INTERNATIONAL	23	8	E	9	NE	SW	36642	King	A		36664	1321974	790575
833647		AE20003	17		Segale Properties	23	8	E	13	NW	SW	41251	King	A	41257		1335052	784752
833649		AE20003	12		Segale Properties	23	8	E	13	NW	SW	41251	King	A	41257		1335052	784752
833651		AE20003	16		Segale Properties	23	8	E	13	NW	SW	41251	King	A	41257		1335052	784752
833641		SE46923	17		Seggle Properties	23	8	E	13	NW	SW	41251	King	R	41257		1335052	784752
833643		SE46923	12		Seggle Properties	23	8	E	13	NW	SW	41251	King	R	41257		1335052	784752
833645		SE46923	16		Seggle Properties	23	8	E	13	NW	SW	41251	King	R	41257		1335052	784752
759322		SE44122	60	6	Shell C/o Maul-Foster & Alongi Maul-Foster & Alongi	23	8	E	13	SE	SE	40841	King	R	40869		1338966	781917
759324		SE44122	20	6	Shell C/o Maul-Foster & Alongi Maul-Foster & Alongi	23	8	E	13	SE	SE	40841	King	R	40869		1338966	781917
759326		SE44122	20	6	Shell C/o Maul-Foster & Alongi Maul-Foster & Alongi	23	8	E	13	SE	SE	40841	King	R	40869		1338966	781917
759328		AE15503	60	6	Shell C/o Maul-Foster & Alongi Maul-Foster & Alongi	23	8	E	13	SE	SE	40841	King	A	40869		1338966	781917
759330		AE15503	20	6	Shell C/o Maul-Foster & Alongi Maul-Foster & Alongi	23	8	E	13	SE	SE	40841	King	A	40869		1338966	781917
759332		AE15503	20	6	Shell C/o Maul-Foster & Alongi Maul-Foster & Alongi	23	8	E	13	SE	SE	40841	King	A	40869		1338966	781917
373161		E004871	20	2	SHULTZ DISTRIBUTING	23	8	E	4	NW	SW	37866	King	R	37991		1319455	795994
366281	AFG434	W128692	95	6	SNOQUALMIE VALLEY LAND CO INC	23	8	E	4	SW	NW	37525	King	W	37552		1319423	794660
1906529	BLZ218	RE17164	20	2	Sphalerite Technology LLC-Under An Ying Shun	23	8	E	13	SW	SW	43507	King	R	43565	1323089050	1334990	782106
107457			49	6	STAN RICE	23	8	E	3	NW		30111	King	W	30167		1325409	796471
107481		1539	57	6	STEVE BANER	23	8	E	11	SE	SE	32728	King	W			1333800	787448
97959	AER258	W114437	213	6	STEVE WALTZ	23	8	E	8	SE	NW	36263	King	W	36280		1316639	789390
327237		R048340	12		SUPER RENT CO	23	8	E	9	NE	SW	36626	King	R	36637		1321974	790575
327238		R048340	12		SUPER RENT CO	23	8	E	9	NE	SW	36626	King	R	36637		1321974	790575
327239		R048340	12		SUPER RENT CO	23	8	E	9	NE	SW	36626	King	R	36637		1321974	790575
327240		R048340	12		SUPER RENT CO	23	8	E	9	NE	SW	36626	King	R	36637		1321974	790575
327241		R048340	12		SUPER RENT CO	23	8	E	9	NE	SW	36626	King	R	36637		1321974	790575
327242		R048340	12		SUPER RENT CO	23	8	E	9	NE	SW	36626	King	R	36637		1321974	790575
327243		R048340	12		SUPER RENT CO	23	8	E	9	NE	SW	36626	King	R	36637		1321974	790575
327244		R048340	12		SUPER RENT CO	23	8	E	9	NE	SW	36626	King	R	36637		1321974	790575
327245		R048340	12		SUPER RENT CO	23	8	E	9	NE	SW	36626	King	R	36637		1321974	790575
327246		R048340	12		SUPER RENT CO	23	8	E	9	NE	SW	36626	King	R	36637		1321974	790575
327247		R048359	12		SUPER RENT CO	23	8	E	9	NE	SW	36626	King	R	36637		1321974	790575
109694	ABN895	R018889			SUPER RENT INC.	23	8	E	9	SE	SW	34606	King	R	34628		1321916	787921
109695	ABN896	R018889			SUPER RENT INC.	23	8	E	9	SE	SW	34606	King	R	34628		1321916	787921
109696	ABN897	R018889			SUPER RENT INC.	23	8	E	9	SE	SW	34606	King	R	34628		1321916	787921
109697	ABN898	R018889			SUPER RENT INC.	23	8	E	9	SE	SW	34606	King	R	34628		1321916	787921
110437	ACG036	R026097			SUPER RENTS	23	8	E	9	NE	SE	35125	King	R	35144		1323307	790526
110438	ACG037	R026097			SUPER RENTS	23	8	E	9	NE	SE	35125	King	R			1323307	790526
110439	ACG038	R026097			SUPER RENTS	23	8	E	9	NE	SE	35125	King	R			1323307	790526
290734					SUPER RENTS	23	8	E	9	NE	SE		King	R			1323307	790526
290735					SUPER RENTS	23	8	E	9	NE	SE		King	R			1323307	790526
290736					SUPER RENTS	23	8	E	9	NE	SE		King	R			1323307	790526
290737					SUPER RENTS	23	8	E	9	NE	SE		King	R			1323307	790526
290738					SUPER RENTS	23	8	E	9	NE	SE		King	R			1323307	790526
107600			14	30	T.A. BACCLCH	23	8	E	3	NW	NE		King	W			1326096	797122
290739			19	30	T.O. AUSTIN	23	8	E	15	NE	SE		King	W			1328588	785101
107650					TANNER LUMBER	23	8	E	14	SE	NE	33641	King	W	33773		1333717	783495
290750					7 TANNER LUMBER	23	8	E	14				King	R			1331810	784270
290751					7 TANNER LUMBER	23	8	E	14				King	R			1331810	784270
290752					7 TANNER LUMBER	23	8	E	14				King	R			1331810	784270
290753					7 TANNER LUMBER	23	8	E	14				King	R			1331810	784270
335615		A060405	40	6	TANNER ROAD PROPERTIES	23	8	E	14	NW	NW	37424	King	A	37427	1423089068	1329921	786357

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Table C-1: Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
335616		A060406	49	6	TANNER ROAD PROPERTIES	23	8	E	14	NW	NW	37421	King	A	37427	1423089009	1329921	786357
335617		A060407	24	16	TANNER ROAD PROPERTIES	23	8	E	14	NW	NW	37421	King	A	37427	1423089060	1329921	786357
370300		A060408	35	6	TANNER ROAD PROPERTIES	23	8	E	14	NW	NW	37424	King	A	37427	1423089060	1329921	786357
107675			54	6	TELEPHONE UTILETES	23	8	E	16	NE	NW	29348	King	W			1321893	786599
290767					TEST WELLS	23	8	E	9	NW	SW		King	R			1319309	790671
290768					TEST WELLS	23	8	E	9	NW	SW		King	R			1319309	790671
290769					TEST WELLS	23	8	E	9	NW	SW		King	R			1319309	790671
107813		R036837			TEXACO N. BEND	23	8	E	9	NE	SW		King	R	35929		1321974	790575
1894895		AE52678	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	A	43496		1325861	782529
1894896		AE52678	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	A	43496		1325861	782529
1894897		AE52678	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	A	43496		1325861	782529
1894898		SE68542	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	R	43496		1325861	782529
1894899		SE68542	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	R	43496		1325861	782529
1894917		AE52678	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	A	43496		1325861	782529
1894918		SE68542	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	R	43496		1325861	782529
1894919		SE68542	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	R	43496		1325861	782529
1894922	BKL103	RE16957	20	6	The Quadrant Corperation	23	8	E	15	SW	NE	43314	King	R	43496		1325884	783844
1894923		AE52678	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	A	43496		1325861	782529
1894928		SE68542	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	R	43496		1325861	782529
1894930		SE68542	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	R	43496		1325861	782529
1894932		AE52678	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	A	43496		1325861	782529
1894937		AE52678	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	A	43496		1325861	782529
1894978		SE68542	30	8	The Quadrant Corperation	23	8	E	15	SW	SE	43314	King	R	43496		1325861	782529
1894894	BKL102	RE16285	20	6	The Quadrant Corperation	23	8	E	15	SW	NE	43314	King	R	43496		1325884	783844
1894842	BKY140	RE13677	20	6	The Riley Group	23	8	E	14	NW	NW	42726	King	R	43496		1329921	786357
1894843	BJY141	RE13677	20	6	The Riley Group	23	8	E	14	NW	NW	42726	King	R	43496		1329921	786357
1894845	BKY138	RE13678	20	6	The Riley Group	23	8	E	14	NW	NW	42726	King	R	43496		1329921	786357
1894881	BKY139	RE13678	20	6	The Riley Group	23	8	E	14	NW	NW	42726	King	R	43496		1329921	786357
107837			40	6	THOMAS ANTONE	23	8	E	15	NE	NW	28778	King	W			1327267	786443
107866			85	6	TIM OLEKSY	23	8	E	16	SE	SW	31839	King	W			1321839	782652
943500		SE51844	17.5	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	R	41845	1523089157	1328608	786411
943501		AE27428	24	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	A	41845	1523089157	1328608	786411
943502		AE27428	24	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	A	41845	1523089157	1328608	786411
943516		SE51844	24	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	R	41845	1523089157	1328608	786411
943521		SE51844	24	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	R	41845	1523089157	1328608	786411
943541		SE51844	24	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	R	41845	1523089157	1328608	786411
943542		AE27428	24	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	A	41845	1523089157	1328608	786411
943563		SE51844	4.5	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	R	41845	1523089157	1328608	786411
943571		AE27428	4	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	A	41845	1523089157	1328608	786411
943572		AE27428	24	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	A	41845	1523089157	1328608	786411
943579		AE27428	17.5	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	A	41845	1523089157	1328608	786411
943593		SE51844	24	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	R	41845	1523089157	1328608	786411
943607		AE27428	4.5	2.25	Tom Antone	23	8	E	15	NE	NE	41814	King	A	41845	1523089157	1328608	786411
107910				42	TOM HALSTON	23	8	E	15	SE	SW	22840	King	W			1327204	782505
107911			10	42	TOM HALSTON	23	8	E	15	SE	SW		King	W			1327204	782505
190416	AEJ480	W118711	38	6	TOM JUDGE	23	8	E	16	NE	SE	36314	King	W	36349		1323221	785228
190417	AEJ491	W116934	340	6	TOM JUDGE	23	8	E	8	NE	SE	36316	King	W	36349		1317979	790701
1925435		AE54295	6	30	Tom Roswold Construction Inc/SHAWN CRAWFORD	23	8	E	3	SW	SW	43567	King	A	43740	323089051	1324691	793157
460476	APP761	WE05449	55	6	TRAVIS ALEXANDER	23	8	E	4	SW	NW	38926	King	W	39034	5418700050	1319423	794660
108348					VERN TRACY	23	8	E	15	NW	NW		King	W			1324589	786502
108363		W063847	40	6	VICKIE KENNEDY	23	8	E	15	SW	NE	35039	King	W	35787		1325884	783844
327227		R036137	6		VIGINIA MASON ADMIN	23	8	E	9	NE	SW	36334	King	R	36360		1321974	790575
327228		R036137	6		VIGINIA MASON ADMIN	23	8	E	9	NE	SW	36334	King	R	36360		1321974	790575
327229		R036137	6		VIGINIA MASON ADMIN	23	8	E	9	NE	SW	36334	King	R	36360		1321974	790575
327230		R036137	6		VIGINIA MASON ADMIN	23	8	E	9	NE	SW	36334	King	R	36360		1321974	790575
327231		R036137	6		VIGINIA MASON ADMIN	23	8	E	9	NE	SW	36334	King	R	36360		1321974	790575
327232		R036137	6		VIGINIA MASON ADMIN	23	8	E	9	NE	SW	36334	King	R	36360		1321974	790575

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Table C-1: Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_rcv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
327233		R036137	6		VIGINIA MASON ADMIN	23	8	E	9	NE	SW	36334	King	R	36360		1321974	790575
327234		R036137	6		VIGINIA MASON ADMIN	23	8	E	9	NE	SW	36334	King	R	36360		1321974	790575
327235		R036137	6		VIGINIA MASON ADMIN	23	8	E	9	NE	SW	36334	King	R	36360		1321974	790575
327236		R036137	6		VIGINIA MASON ADMIN	23	8	E	9	NE	SW	36334	King	R	36360		1321974	790575
300519			18		30 W. B. MORRISON	23	8	E	15	NE	SW		King	W			1327246	785131
108401					28 W. E. MENOLD	23	8	E	5	NE	SW	22881	King	W			1316764	796030
108402			14		28 W. E. MENOLD	23	8	E	5	NE	SW		King	W			1316764	796030
428373	APM394	RE01364	25		WA STATE DEPT OF TRANSPORTATION	23	8	E	9	SW	SW	38698	King	R	38707		1319220	788025
428374	APM395	RE01364	25		WA STATE DEPT OF TRANSPORTATION	23	8	E	9	SW	SW	38698	King	R	38707		1319220	788025
428375		SE01254	30.7		WA STATE DEPT OF TRANSPORTATION	23	8	E	9	SW	SW	38701	King	R	38707		1319220	788025
454777		SE01426	30		WA STATE DEPT OF TRANSPORTATION	23	8	E	9	SW	SW	38966	King	R	38972		1319220	788025
454778		SE01426	30		WA STATE DEPT OF TRANSPORTATION	23	8	E	9	SW	SW	38966	King	R	38972		1319220	788025
454779		SE01426	25		WA STATE DEPT OF TRANSPORTATION	23	8	E	9	SW	SW	38966	King	R	38972		1319220	788025
454780		SE01426	22		WA STATE DEPT OF TRANSPORTATION	23	8	E	9	SW	SW	38966	King	R	38972		1319220	788025
481987		SE01646	17.5		WA STATE DEPT OF TRANSPORTATION	23	8	E	9	NW	SW	39170	King	R	39192		1319309	790671
481988		SE01646	17		WA STATE DEPT OF TRANSPORTATION	23	8	E	9	NW	SW	39170	King	R	39192		1319309	790671
108441			43		6 WALT HILLS	23	8	E	14	NW	NW	31244	King	W			1329921	786357
108446			81		6 WALTER DAUBERT	23	8	E	14	NE	NW		King	W			1332488	786212
108454			55		6 WALTER SCHAEFER	23	8	E	15	NW	SE		King	W			1325905	785159
108463		35101	24		30 WARREN GREGORY	23	8	E	15	SE	SE	32646	King	W			1328548	782479
108506			35		6 WAYNE-LESLIE FALCON	23	8	E	4	NE	NW	32069	King	W			1322096	797233
1825724	BKP279	RE15099	20		8 Western Gateway LLC	23	8	E	9	NE	SW	43031	King	R	43199		1321974	790575
108605			105		10 WHITE FAWN ENTERPRISES	23	8	E	13	SW	NW	22157	King	W			1335020	783429
300637					10 WHITE FAWN ENTERPRISES	23	8	E	13	SW	NW		King	W			1335020	783429
348957			105		10 WHITE FAWN ENTERPRISES	23	8	E	13	SW	NW	22009	King	W			1335020	783429
585662	BBK101	RE03039	15		8 Will Willhoite Quality Food Center Terra Associates	23	8	E	9	NE	NE	39841	King	R	39941		1323329	791856
585664	BBK102	RE03039	15		8 Will Willhoite Quality Food Center Terra Associates	23	8	E	9	NE	NE	39841	King	R	39941		1323329	791856
585665	BBK103	RE03039	15		8 Will Willhoite Quality Food Center Terra Associates	23	8	E	9	NE	NE	39841	King	R	39941		1323329	791856
108649		35991	125		6 WILLIAM TWEDE	23	8	E	8	SE		33562	King	W	33584		1317275	788729
108674					6 WM R. KIRSHNER	23	8	E	16	NW	NW	22872	King	W			1319190	786706
108675			151		6 WM R. KIRSHNER	23	8	E	16	NW	NW		King	W			1319190	786706
300648			39		6 WM RYBA	23	8	E	14	SW	SW		King	W			1329858	782397
108710		29137	100		6 YVES GRAINDORGE	23	8	E	8	SW	NW	33319	King	W			1314028	789411
379518	AHH474	W153681	20		6 ZACHARY BURNETT	23	8	E	5	SE	NE	38113	King	W	38124	523089020	1318088	794685

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Table C-2: MT SI Springs Area Well Logs

well_log_id	well_tag_nr	nit_id_nr	well_depth_qt	well_diameter_qt	well_owner_nm	township_nr	range_nr	range_dir_cd	section_nr	qtr_section_cd	qtr_qtr_section_cd	well_comp_dt	county_nm	well_type_cd	well_log_recv_dt	tax_parcel_nr	ST_PLANE_XCOORD_NR	ST_PLANE_YCOORD_NR
384207	AKF920	W151375	287		6 GREG CROMWELL	24	8	E	35	NW	SE	38196	King	W	38208	352408-9050	1331444	801000
342155	AAW467	W118432	35		6 JENNIFER LEWIS	24	8	E	35			36508	King	W	36538		1332101	800345

APPENDIX D

**Example Landowner
Communication Letter**



Appendix D: Sample Notification Letters

Example Letter 1 **To local jurisdictions / agencies**

Dear (Agency/Local Government):

We are writing to let you know that businesses or facilities you regulate are in our public water system wellhead protection area. Please take all reasonable steps to ensure that land use activities within this area do not contaminate our drinking water sources.

Our water company has 450 service connections, and serves about 1,071 people. The Washington State Department of Health rated our system as “highly susceptible.”

The enclosed map shows the 6-month and 1-, 5- and 10-year time-of-travel boundaries for our wellhead protection area. We’re also sending you a list of the facilities or activities of concern. Any groundwater contamination that occurs within this wellhead protection area has a high potential to reach our well.

Thank you for your support in protecting our drinking water.

Sincerely,

Example Letter 2 **To potential source owners/operators**

Dear (Owner/Operator):

To protect the drinking water supply for the customers of Taylor’s Gulch Water System, we are developing a wellhead protection program as required by state law. As part of our wellhead protection program, we mapped the area overlying the short-term recharge zone of our drinking water supply wells. This is called our wellhead protection area.

Following the mapping of the wellhead protection area, we conducted an inventory of **potential** groundwater contamination sources within the area. The nature of your business and its location within our wellhead protection area means that your activities have the potential to affect our customers’ drinking water supply.

We have notified the agency or agencies that regulate(s) your type of business/facility that you are in our wellhead protection area. You should contact them to request technical assistance to help manage your business in a way that will best prevent groundwater contamination. We realize you are already careful to protect the environment as you conduct your business. We hope that learning that you are in our wellhead protection area will result in more precautions to ensure that your activities will not affect our drinking water quality.

Sincerely,



golder.com

APPENDIX Q

NORTH BEND OPERATION AND MONITORING PLAN



Golder Associates Inc.

18300 NE Union Hill Road, Suite 200
Redmond, WA USA 98052-3333
Telephone (425) 883-0777
Fax (425) 882-5498
www.golder.com



NORTH BEND MITIGATION OPERATION AND MONITORING PLAN

Submitted to:

*Law Offices of Thomas Pors
On behalf of
City of North Bend*

Submitted by:

*Golder Associates Inc.
18300 NE Union Hill Road, Suite 200
Redmond, Washington 98052*

Nicole DeNovio
Senior Project Hydrogeochemist

Robert H. Anderson
Senior Hydrologist, Principal

May 24, 2007

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1.0 INTRODUCTION

1.1 Purpose/Objectives

The monitoring and operations plan will be used by the City staff to assist in the operation of Mt. Si Springs, Well NB-3 and mitigation sources required as part of the new water right. The current understanding of mitigation system components is provided as background. This plan provides a detailed explanation of data collection activities and mitigation calculations needed to operate the mitigation system.

The City will send reports to Ecology documenting the monitoring and operation of the mitigation system. Quarterly reports will be provided for the first two years, and annual reports thereafter. The reports will include the monitoring measurements, mitigation algorithm calculations, depletion calculations, and all data supporting the calculations. The mitigation algorithm and associated inputs will be revised, as necessary, after the first two years of operations and then every 6 years to be consistent with Water System Plan updates.

1.2 Background

The City of North Bend has been studying the Snoqualmie Aquifer and River basin for many years in support of its water right application, G1-26617. Studies and reports used to develop the operating procedures include:

- Water Comprehensive Plan and Water System Demand Forecast: Current and projected future water use for the City of North Bend. Also includes current operating procedures related to water conservation and emergencies (North Bend, 2002; North Bend, 2004).
- Forecasting Report: Projections of future annual water demand, instream flow triggers, and forecasts of potential mitigation requirements (Golder, 2004).
- Amended Mitigation Plan: An overview of Phase I mitigation sources and the mitigation goals and objectives (Pors, 2007).
- Mitigation System Capacity Memo: A simple, comprehensive, and very conservative spreadsheet model used to evaluate the availability of Hobo Springs and Sallal Wells as mitigation supplies (PGG, 2006).
- Hydrogeologic Report: Aquifer drilling and testing of Well NB-3, the new water supply well for the City of North Bend (Golder, 2007a).
- Mitigation Report: A series of mitigation curves developed to predict the aggregated daily depletion using a range of aquifer properties identified from aquifer testing in Golder (2007a). This analysis also includes the assumptions and results of the modeling and analysis used to determine the availability of the mitigation sources to meet 100% of the daily mitigation requirement using Hobo Springs and Sallal Wells (Golder, 2007b).

The studies and reports listed above provide the foundation necessary for the operation and monitoring associated with the new water right.

1.3 Mitigation Concept and Regulatory Considerations

Water appropriated from Well NB-3 is in hydraulic continuity with the Snoqualmie River and is therefore subject to minimum instream flow levels established for the river (WAC 173-507). When regulatory instream flows for the Snoqualmie River at Snoqualmie Falls, Carnation or Monroe USGS

stream gauging stations are not met, water from another source will be added to the river to replace the net streamflow depletion resulting from the use of water from the new groundwater source.

The net stream depletion (amount of mitigation water) will be calculated by subtracting the wastewater treatment plant (WWTP) return flows from the maximum predicted volume of aggregated depletion. Net stream depletion will be mitigated by discharging water to Boxley Creek from the available mitigation sources (Hobo Springs and/or Sallal Wells) through the operation of remote switches and valves to control the flow.

The operation and monitoring plan focuses on the two, Phase I, mitigation sources ((1) Hobo Springs and (2) Sallal Wells) to mitigate for the impacts from Well NB-3. Additional Phase II mitigation sources may be developed by the City depending on future analyses and permitting, including: (3) the upper Snoqualmie Deep Aquifer, and (4) surface water from the Tolt River purchased from SPU. The operation and monitoring plan will be updated to reflect these new sources of mitigation water as they are developed.

2.0 SYSTEM DESCRIPTION

This section describes the primary pieces of the mitigation system: minimum instream flow requirements, groundwater resources, mitigation sources and engineering components. The Snoqualmie River streamflows and instream flow requirements identify when the City will need to mitigate for its net stream depletion. The initial mitigation sources include Hobo Springs and the Sallal Wells. In order to implement the mitigation system, the City will need to connect Hobo Springs and the Sallal wellfield to Boxley Creek.

2.1 Snoqualmie River Instream Flow Requirements

The City of North Bend is located between the Middle and South Forks of the Snoqualmie River, downstream from where Boxley Creek joins the South Fork of the Snoqualmie River (Figure 2-1). There are three stream gauges downstream of the City of North Bend on the Snoqualmie and Snohomish Rivers, these include:

- Snoqualmie Gauge (12144500): Snoqualmie River near Snoqualmie, WA. Data are available online at [http://waterdata.usgs.gov/nwis/inventory/?site_no=12144500&";](http://waterdata.usgs.gov/nwis/inventory/?site_no=12144500&)
- Carnation Gauge (12149000): Snoqualmie River near Carnation, WA. Data are available online at [http://waterdata.usgs.gov/nwis/inventory/?site_no=12149000&";](http://waterdata.usgs.gov/nwis/inventory/?site_no=12149000&)
- Monroe Gauge (12150800): Snohomish River near Monroe, WA. Data are available online at [http://waterdata.usgs.gov/nwis/inventory/?site_no=12150800&";](http://waterdata.usgs.gov/nwis/inventory/?site_no=12150800&)

These three gauges are also instream flow control points that will be used as minimum instream flow trigger locations (WAC 173-507) (Figure 2-2). The USGS currently monitors the real-time flow at the three gauges, and this information will be conveyed to the City's Public Works Department via telemetry each morning. Instream flows that do not meet established minimum requirements will "trigger" mitigation measures by the City (See Section 3.2). Table 2-1 lists the instream flow requirements at each gauge.

2.2 North Bend Water Production Sources

The current source of production water for North Bend is Mt. Si Springs at the base of Mt. Si. The City captures the groundwater before it surfaces near the base of Mt. Si using a buried pipe/intake manifold. The captured water is then piped by gravity to a pump station where the water is treated with chlorine and pumped into the water system that serves North Bend and its service area. The City is required to facilitate the flow of 3 cfs from the spring to the North Fork of the Snoqualmie River. Any water in excess of this 3 cfs is available for diversion into the City's water system to the limits established by water right certificate S1-00620C (336 acre-feet/year and 3.25 mgd instantaneous). The City's current diversion capabilities are limited by its pumping capacity at the pump station and the hydraulic capacity of the transmission main. The pump station currently pumps at about 750 gpm with one pump and 1,200 gpm with two pumps running simultaneously. The bypass water from the spring forms a pond, and flows into a tributary to the North Fork Snoqualmie River just upstream of its confluence with the Middle Fork Snoqualmie River (Garrow, 2007a).

A second production source, Well NB-3, is a shallow aquifer well at the Public Works Department site (Figure 2-1). Water from Well NB-3 will be directed to two water systems: the City of North Bend and Sallal Water Association. The water is of a high quality with no indicators as measured in accordance with the Clean Water Act. The planned capacity of the well is 2,500 gpm (Garrow, 2007a). North Bend will control supply to Sallal by means of valving at the Well NB-3 site. The Valley Floor Intertie will connect North Bend's system with Sallal's water system.

2.3 Return Flow to Snoqualmie River (WWTP)

Wastewater collected by the City from its residential and commercial customers is treated at the City's wastewater treatment plant (WWTP). The City uses secondary treatment methods to produce high quality water that meets or exceeds applicable standards established by Washington State Department of Ecology (WDOE) and U.S. Environmental Protection Agency (US EPA). The water discharged to the South Fork Snoqualmie River is monitored in accordance with the WDOE-issued discharge permit for the WWTP and the results are reported to WDOE each month (Garrow, 2007b).

Flow from the WWTP that is discharged to the South Fork Snoqualmie River is measured by a flow meter on the outfall pipe. This flow meter (totalizer) is read daily, in the mornings, with flows measured to the nearest 10,000 gallons. The results are recorded manually on a Discharge Monitoring Report (DMR) and sent to WDOE each month.

2.4 Mitigation Sources

The proposed initial mitigation sources are: (1) groundwater from Hobo Springs purchased from Seattle Public Utilities (SPU) and (2) groundwater from Sallal Wells purchased from the Sallal Water Association. Additional mitigation sources that may be available to the City depending on future analyses and permitting include: (3) the upper Snoqualmie Deep Aquifer (to the extent scheduled testing and analysis support its availability and utility as a mitigation source), and (4) surface water from the Tolt River purchased from SPU. Figure 2-3 provides a relative timeline for the development of each mitigation source. Figure 2-4 provides the locations of the initial mitigation sources.

2.4.1 Hobo Springs

Hobo Springs flow is the primary source of mitigation. Flows at Hobo Springs are captured through a large concrete box with a weir at the outlet. The concrete box contains an intake structure attached to the pipe that serves as an emergency source of fireflow for SPU. Any water that is not diverted to the intake structure exits the box at the weir. The weir is monitored with a transducer and the flow is recorded by the City of North Bend. Based on the existing record, it appears that Hobo Springs will likely provide approximately 3 cfs during July through October most years without any modifications (Golder, 2007b). However, flows will likely drop below 3 cfs during fall and winter of dry years (Golder, 2007b).

Based on field observations of Hobo Springs, only a portion of the total Hobo Springs flow is currently captured in the spring collection box and measured at the weir (Figure 2-5). Based on these observations, Hobo Springs' collection system may be enhanced to generate more mitigation capacity for the City of North Bend in the future.

2.4.2 Sallal Wells

A second groundwater source of mitigation is available to North Bend by agreement with Sallal Water Association. Two of Sallal's existing municipal wells (Sallal Wells #01 and #02) are located in close proximity to the pipeline that will connect Hobo Springs to Boxley Creek, and will be tied into the same pipeline to deliver mitigation water. The Sallal Wells are located in the Cedar River watershed near Rattlesnake Lake (Figure 2-4).

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The Sallal Water Association's municipal water right is 696 AFY (G1-24671C), of which up to 35% (243.6 AFY) will be available to North Bend for mitigation purposes as a supplement to the Hobo Springs source. During periods when low flows are anticipated from Hobo Springs, Sallal will designate one of the wells to mitigation production and 20 to 25% of production from the second well as necessary (Pancoast, 2006). With all of the Sallal Well capacity in place, North Bend will have instantaneous access to at least 800 gpm with expansion to at least 1,000 gpm from the Sallal Wells.

2.4.3 Deep Aquifer

A future source of flow mitigation is augmentation from a deep, semi-confined aquifer in the Snoqualmie Valley. The proposed augmentation concept is based on withdrawal of some portion of the storage capacity of the deep aquifer during the summer only. The aquifer would be "rested" and allowed to recharge during the winter. The concept will reduce, but not necessarily eliminate the need for contracted mitigation water from SPU and Sallal. For example, deep aquifer mitigation may not provide mitigation during winter and may not provide 100% of mitigation during some periods in summer months, although combined with other mitigation sources it is expected to increase flexibility and extend the adequacy of other mitigation sources for at least several years.

The potential mitigation water available from this source has not been determined because aquifer studies and analyses are not yet complete.

2.4.4 Long Tolt

The Tolt Pipeline option involves possible diversion of water from SPU's Tolt Reservoir via a gravity pipeline that would convey water to the upper portion of the North Fork Snoqualmie watershed. The water from the Tolt Reservoir would be purchased by the City of North Bend through the existing wholesale agreement with SPU that supports the Hobo Springs mitigation source. Water would be discharged to the North Fork Snoqualmie River at the confluence with Deep Creek. Permits and easements for the Long Tolt project would be obtained at such time that the City predicts that its municipal growth requires this project to supplement its mitigation supplies. The consequence of not obtaining necessary approvals and constructing this project is that the City's growth could be limited. The City's new water rights are expected to have a condition that limits the City's municipal use of new water rights to the quantity for which it has installed and permitted capacity to mitigate for instream flow impacts in real time. The timing and volume of water delivered to the North Fork Snoqualmie would be further analyzed to ensure that mitigation water reaches the confluence of the North Fork and Middle Fork Snoqualmie coincident with the impact of pumping from Well NB-3.

2.5 **New Transmission Infrastructure**

2.5.1 Municipal Water System

The existing transmission pipe from the Mt. Si Springs pump station to the distribution system in the City will be unaffected by the new water right.

The City of North Bend drilled a new production well on the North Bend Public Works property. The new production well will be designed with a capacity of 2,500 gpm. The well facilities will include the well pump, piping and hydraulic controls, well house, emergency generator, electrical, HVAC, site features and piping, and the point of connection to the existing system for the new production well.

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The intertie with Sallal will be designed with a capacity of 1,000 gpm. The intertie facilities will include flow metering, control and isolation valves, booster pumps, and telemetry.

2.5.2 Mitigation Conveyance System

The Sallal Mitigation Pipeline will be connected to the transmission line that links Hobo Springs and Boxley Creek (Figure 2-6). The existing Hobo Springs intake structure is currently connected to a 6-inch waterline that originally supplied water to the community of Cedar Falls and still provides an emergency source of fireflow to Seattle Public Utilities. An additional waterline was later connected to this system to serve the Sallal Water Association through a booster pump station, which is now abandoned. The waterline and booster pump station are not in sufficient condition to provide water for the mitigation project, nor would they provide the capacity necessary for the maximum mitigation case. Therefore, the existing 6-inch pipe that originally supplied water to the community of Cedar Falls and still provides an emergency source of fireflow to Seattle Public Utilities will be replaced with approximately 8,700 of 16-inch pipe at the intake structure connection. The mitigation line will be 16-inch throughout the entire length of the line.

The Seattle Public Utilities 6-inch emergency fireflow line will be reconnected to the mitigation line. The existing abandoned booster pump station will be demolished, and a new mitigation booster pump station will be constructed on the Iron Horse Trail near the western terminus of the trail. A new meter facility will also be added at this site in order to meter mitigation flow rates. From the booster pump station, the new mitigation line will extend 4,600 feet to a metered outfall at Boxley Creek. The outfall will be engineered to reduce erosion from discharge into Boxley Creek.

The mitigation line will also include a connection to an existing 12-inch waterline that was once used to provide the Sallal system with water from the Masonry Pool adjacent to Chester Morse Lake. This waterline will be reconnected to Sallal's distribution system and will be used to provide water from a Sallal production well nearby. An intertie containing a meter and valves will be installed between the Sallal distribution system and the mitigation line to monitor and control the amount of mitigation water provided by Sallal.

2.6 New North Bend/Sallal Intertie

The new transmission main from Well NB-3 will be connected to an intertie located at the boundary between North Bend and the Sallal Association water purveyors. It will be equipped with telemetry and monitoring equipment to remotely measure flow through the intertie.

The intertie will function as a normal wholesale supply line from North Bend to Sallal. However, in emergencies, water will be able to flow the reverse direction from Sallal into the North Bend system by means of valve operations.

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3.0 MONITORING REQUIREMENTS

The City will monitor water production, streamflow, return flows from the WWTP, and mitigation contributions using remote sensors and data loggers that will be connected to the mitigation and production sources. The City will be responsible for monitoring and data collection on a daily basis regardless of whether Well NB-3 was pumped or if instream flows were met. Monitoring must occur on a daily basis because mitigation water, when needed, will be discharged on a daily basis, and the mitigation requirement is based on aggregated impacts from the previous 20 days (Golder, 2007b). The City will input the data into a database each day which will determine the mitigation requirement for the day (Section 4.2).

Table 3-1 lists the monitoring responsibilities of the Public Works Department staff including the components to monitor, the parameters to monitor, and the primary and back-up modes of transmitting the data. A diagram of the monitoring locations is provided in Figure 3-1. More detailed monitoring information for each component is provided below.

3.1 Water System Monitoring

Currently, the City monitors several parameters of its Mt. Si Springs water system on a daily basis. These include pump run times, power usage, total flow pumped from the spring, pounds of chlorine used for treatment, continuous water levels in the storage tanks, and the level of the pond downstream of the Mt. Si Spring intake manifold. These measurements are usually taken in the morning of each day. The readings are done manually and kept on a paper log except for the tank water levels which are kept on a circular log graph.

Modifications to the water system proposed as part of the current water right application would enable water production to be remotely monitored with information conveyed telemetrically to the Public Works Department to facilitate decision making for water resource management at a centralized location. Similarly, the information from the other sources of water for both production and mitigation would be transmitted in the morning of each day to the Public Works Department. The data will be stored in an electronic format for quick review, interpretation with the mitigation algorithm, and water system planning.

3.2 WWTP Flow Monitoring

Flow from the WWTP to the South Fork Snoqualmie River is measured by a flow meter on the outfall pipe. This flow meter (totalizer) is read daily in the mornings with flows measured to the nearest 10,000 gallons. The results will be recorded manually on a DMR and transmitted to the Public Works Department in the morning of each day by e-mail or other reliable means. Monitoring provides the return flows for the previous day, not the mitigation day. As a result, the return flows are recorded to provide a means of estimating the daily WWTP return flow during future operations, as discussed below.

For mitigation volumes to reflect the net stream depletion on the day of interest, the WWTP return flows for the new water right will be estimated using the following equation:

$$V_{\text{wwtp}} = V_{\text{NR}} * f_{\text{wwtp}}, \text{ where}$$

V_{wwtp} = volume of water returned from wastewater treatment plant

V_{NR} = annual volume of water from new water right

f_{wwtp} = percentage of annual produced volume from new water right that is returned to the river as WWTP flows divided by days in the year.

The running 12 month total volume of water from the new water right (V_{NR}) will be updated daily. The f_{wwtp} factor is based on the fraction of total water demand that is returned to the river. Initially, f_{wwtp} will be equal to 0.60 and will be updated with revisions to the operation manual (Section 6.5) or more frequently if necessary using the last six years of continuous data. The initial value for f_{wwtp} is based on an analysis of four years of summer return flows (2000 – 2003) (Golder, 2004). Golder (2004) determined that the fraction of water returned to the river from the WWTP (relative to annual pumping rates) is lowest during the summer months. Using this fraction year-round for predicting return flows ensures that mitigation calculations are conservative.

The f_{wwtp} is calculated based on an annual volume of water. However, actual water use varies seasonally (indoor use results in lower water consumption versus outdoor use which results in higher consumption), and therefore, the return flows reflect a smaller percent of the water that is used during the summer because demand is higher and a higher percent during the winter because demand is lower. V_{wwtp} will be calculated each day.

3.3 Streamflow Monitoring

A new City telemetry system which accesses data at USGS gauges 12144500, 12149000 and 12150800 will provide the real-time streamflow data. The telemetry system will download the available instantaneous measurements recorded by each USGS gauge. The minimum measurement during the previous 24 hours will be compared to the minimum instream flow requirement for that day to determine if the instream flow requirement would not be met. If the telemetry system malfunctions, then the City staff would download the data available online. The USGS gauge data that will be used is provisional and subject to revision. The gauge height reading is reported to the nearest hundredth of a foot and the streamflow calculated using a rating curve. However, it is the best available source of data at that time and will be used to determine mitigation triggers. Mitigation will not be subject to revised data.

3.4 Groundwater Monitoring

Well NB-3 will be monitored with a transducer to record aquifer drawdown and a totalizer meter to record the daily production volume. The pump run times and instantaneous flow from the well will also be monitored. The data will be transmitted to the Public Works Department telemetrically each morning.

The City will also conduct a 72-hour constant rate pump test within the first two years of implementing the mitigation system. During the pump test, Well NB-3 will be pumped at the maximum safe capacity that can be received by the water system and all of the pumped water will be discharged to a closed water system or outside the radius of influence of the well. The results of the pump test will be analyzed to update estimated transmissivity and storativity and will be reported to WDOE. Future testing will use a similar monitoring system to previous Well NB-3 testing. Results will be used to update transmissivity and storativity, reported to WDOE, and if necessary used to update the mitigation algorithm.

3.5 Hobo Springs Monitoring

Water levels behind the existing weir will continue to be monitored using a pressure transducer to determine flow rates over the weir. The water level at the weir will be translated into a flow rate using a weir equation developed from previous analyses of Hobo Springs data. The transducer will take measurements at a preset time increment of 60 minutes and the data will be transmitted via telemetry.

Masonry Pool elevation will also be downloaded from the USGS data inventory site at least once a week so that the City of North Bend will be able to approximate the average monthly flows at Hobo Springs one month in advance. This will help the City to adequately prepare for low Hobo Springs flows, if necessary.

3.6 Sallal Water System Monitoring

The new transmission main from the new production well will intertie with Sallal's water system. A flow meter and totalizer on the transmission pipe to Sallal will be monitored daily. Additionally, data will be transmitted telemetrically to the Public Works Department from the Sallal Mitigation Pipeline to facilitate remote operation for supplemental discharge of mitigation water from Sallal wells to Boxley Creek. The Sallal Water Department will inspect the Sallal mitigation intertie as needed.

3.7 Mitigation Water Monitoring

The City will monitor the flow through the outfall pipe into Boxley Creek using a totalizer that will be read at least weekly. This information, along with the streamflow information received from the Boxley Creek gauges (USGS gauges 12143700 and 12143900), will be used to monitor the effectiveness of the stream augmentation. In addition, the instantaneous flow through the mitigation transmission pipeline at Hobo Springs and the intertie with Sallal will be monitored via telemetry (see Sections 2.5.2). Daily mitigation volumes will be calculated by summing the instantaneous flow data. Field inspections will be completed at least monthly to identify potential maintenance issues.

4.0 MITIGATION OPERATIONS AND ALGORITHM

4.1 Operating the Mitigation System

Figure 4-1 outlines the steps required to operate the mitigation system. A discussion of the three-step process is provided below.

4.1.1 Step 1: Daily Monitoring

Every morning, the City will monitor production during the previous 24 hours at Mt. Si Springs, Well NB-3, WWTP flows, USGS streamflow gauges, Hobo Springs flows, Sallal mitigation pipeline flows, and mitigation water flows into Boxley Creek. The data will be conveyed via telemetry to the Public Works Department from Mt. Si Springs, Well NB-3, the USGS gauges, Hobo Springs, the Sallal Water System, and the Boxley Creek outfall. The WWTP totalizer will be read each morning and the data reported to the Public Works Department. Masonry Pool elevation data will be retrieved online once a week. The data collected during this time period is used to determine the mitigation requirements for the previous day's pumping at Well NB-3.

4.1.2 Step 2: Mitigation Algorithm

The mitigation algorithm defines the rules and calculation methods for determining the daily mitigation requirement under reasonably foreseeable scenarios. The proposed mitigation algorithm includes Hobo Springs and Sallal Well sources of mitigation water (Figure 4-2). The mitigation algorithm will be updated if additional mitigation sources are added and may be updated based on new pump test information.

The first step in the process outlined in Figure 4-2 is to determine the source of the water produced by the City in the preceding 24 hours. If 100 percent of the produced water (V_{24}) was from the senior Mt. Si Springs water right, then there is no mitigation requirement from this withdrawal. However, if any of the produced water (V_{24}) from the previous 20 days is from the new water right, then it is necessary to calculate the volume of the water produced from the new water right (V_{NR}). The total groundwater withdrawal from Well NB-3 is then used to calculate the aggregated stream depletion based on groundwater withdrawals from the previous 20 days. The streamflow and instream flow requirements at each of the three USGS gauges are also compared each day to determine if the minimum instream flow requirements at each of the three USGS gauges are met (See Table 2-1). If the instream flows are met, then there is no mitigation requirement. However, if the instream flows are not met, then it is necessary to determine the daily volume of mitigation water needed to offset net stream impacts.

The maximum stream depletion of water resulting from the new groundwater withdrawals is defined as the maximum aggregated stream depletion resulting from model calculations. The set of mitigation functions used to calculate the maximum aggregated stream depletion is provided in Appendix A. The mitigation volume is equal to the maximum aggregated stream depletion minus the WWTP return flows.

NET STREAM DEPLETION = Maximum Aggregated Stream Depletion – WWTP Return Flow.

The net stream depletion is calculated on a daily basis. The City will input the necessary data into a database that will calculate the net stream depletion. The database will store all of the necessary water system information to calculate mitigation needs (based on the mitigation functions provided in Appendix A) and assist the water system operators in decision making related to the mitigation system. This database may also be used to compile data and assist in preparation of mitigation system reports to satisfy mandatory reporting requirements. An overview of the database inputs and outputs is included in Figure 4-3.

The daily mitigation volume (net stream depletion) is converted into a daily rate so that it can be compared to the Hobo Springs flow. If there is adequate Hobo Springs flow ($Q_h > Q_M$) then Hobo Springs can supply the entire mitigation requirement. However, if there is inadequate flow from Hobo Springs, then it is necessary to calculate the volume of mitigation water needed from the Sallal Wells. The daily rate of mitigation water needed from the Sallal Wells is the difference between Hobo Springs flow and the daily rate of mitigation. This daily rate (Q_s) is then converted to a volume and added to the total annual Sallal water production volume. This volume (V_s + total annual Sallal water production) is compared to the water right capacity of the Sallal water right. If the volume is less than the annual capacity of the water right, then the two mitigation sources can mitigate 100 percent of the net stream depletion resulting from the new water right. If the volume is greater than the capacity, the production from Well NB-3 will be limited to the mitigation capacity provided by Hobo Springs and the Sallal Wells. This would require the possible development of an additional mitigation source or implementation of the City's water consumption curtailment plan.

4.1.3 Step 3: Supply Mitigation Water

Under normal operating procedures, the City will supply the calculated volume of mitigation water (V_M) within the next 24 hours. Any delays in obtaining the necessary information to calculate the previous day's mitigation requirement will require Q_M to be recalculated from V_M using a smaller amount of time and will be available through the database calculations. For example, if the calculations are completed two hours late, then Q_M is calculated using a period of 22 hours or 1320 minutes: $Q_M = V_M/1320$. If normal operating procedures are not possible to maintain (e.g., there is an emergency), then the part of the daily aggregated mitigation requirement that is unfulfilled is added to the mitigation requirement for the next possible day. The rate and volume of mitigation water from each mitigation source will be monitored when in use. Water delivery to Boxley Creek will also be monitored. If monitoring indicates that the City has under-mitigated during normal operations, then the unmitigated volume is added to the next day's mitigation requirement. See Section 5 for more details on monitoring requirements.

Mitigation water will be supplied from either Hobo Springs or from Sallal Wells. The aggregate volume of mitigation water will be added using remote switches and valves at one or both of the available mitigation sources to provide flows to the Snoqualmie River via Boxley Creek. See Figure 2-6 for a schematic of the mitigation supply outfall into Boxley Creek.

5.0 OTHER OPERATIONAL CONSIDERATIONS

5.1 Maximum Mitigation Capacity

The availability of the water from the mitigation sources (Golder 2007b) is limited by the capacity of Hobo Springs and Sallal Wells. Table 5-1 shows the projected instantaneous mitigation supply available from the Hobo Springs and Sallal Wells mitigation sources after 21 years of growth. These projections were calculated using conservative assumptions (See Golder, 2007b). Information collected during system operation and monitoring may extend the projected time that the maximum mitigation capacity could satisfy the mitigation needs associated with the new water right.

The predicted mitigation needs may be reduced through improvements to the water management system. Optimization of the supply and mitigation system will occur as more data are collected during operation, especially during the first 5 years. The utilization of Well NB-3 and the mitigation system components will undergo constant monitoring, and these data will be used to refine operations and/or adjust mitigation functions to achieve the mitigation requirements. The need for development of new mitigation sources, including expansion of Hobo Springs capacity, will be considered regularly during water system plan updates and can easily be accomplished within 10 years, giving the City ample time to match its actual growth with mitigation source capacity (Golder, 2007b).

5.2 Contingency Responses

Emergencies that would require contingency responses range from a lack of supply to mechanical failure of the system. Procedures to manage and remedy common emergencies due to mechanical failures associated with the mitigation supply system and a reduced mitigation water supply are described below.

5.2.1 Mechanical Failures

Mechanical failures will be promptly addressed and repaired. In the event of a power failure, Puget Power will be contacted to determine the length of the power outage. If the power outage substantially affects the mitigation capability, demand reduction measures will be initiated. The storage capacity of the existing water supply can supply three days of average daily use when the three reservoirs are full.

There are four types of gauges or meters that are vital to the operation of the production and mitigation sources: the USGS streamflow gauges, the Hobo Springs transducer, Mt. Si Spring totalizer, and the production well totalizer. If any of these measuring devices fail, then the previous day's data will be used to determine whether mitigation water is needed and to calculate the volume of mitigation water needed. In addition, if the database is unavailable, then the previous day's mitigation requirement will be continued on that day and every day until the database is available. The database will be a redundant system that will be backed up regularly. Any problems with the database will be fixed as soon as possible.

The City does not have the ability to fix the USGS gauge, but will inform the USGS if the gauge appears to be malfunctioning. It is unlikely that all three USGS gauges would fail at the same time. The high correlation among the gauges to identify when instream flows are not met will ensure that if one or two of the gauges are malfunctioning, then the useable gauge(s) would provide the necessary information to determine if instream flows are met (Golder, 2007b). This will help ensure that all of the impacts are mitigated. The City will fix the Hobo Springs transducer or production well totalizer as soon as possible. If needed, an employee can measure Hobo Springs flow manually.

An engineering failure associated with the conveyance network or the Sallal Well or pump would also require action by the City. The City will be responsible for fixing engineering failures associated with its infrastructure within a reasonable time period, including any failures associated with the Boxley Creek mitigation supply. The City will also add the unmet part of the aggregated mitigation requirement to the mitigation requirement for the next possible mitigation day. If there are issues with Sallal's wells or pump, then the City will inquire as to when the issue is expected to be fixed.

5.2.2 Demand Reduction Measures

There are different procedures for remedying a reduction in mitigation water supply depending on the number of sources that are impacted. If supply is only reduced by one mitigation source, then the alternate source(s) can be used until supply is restored. Since these interruptions in supply are anticipated to be short term, the SPU/Hobo Springs and Sallal water sources should be capable of meeting mitigation requirements while the other source is temporarily unavailable. In addition, the City will have approximately one month to prepare for a reduction in supply from Hobo Springs because of the early warning system that the Masonry Pool elevation provides (Golder, 2007b).

If the mitigation supply is unavoidably reduced, customers will be alerted of the situation and the City's emergency water shortage plan (adopted by the City Council) will be implemented. This plan includes mandatory curtailment of discretionary water uses. Also, the Sallal/North Bend intertie will be activated for flow into North Bend (Garrow, 2007b). The City's emergency response plan is described in its Comprehensive Water System Plan (North Bend, 2002), and Table 5-2 is the emergency phone list.

5.3 Water Use Efficiency

Conservation measures can be implemented to help meet the increased demand for water by using existing supplies more efficiently. Based on North Bend's comprehensive Water Plan, the supply agreement between North Bend and Seattle Public Utilities and the State's 2003 Municipal Water Law, North Bend will implement conservation efforts to optimize use of water, reduce inefficiencies in the conveyance of the water, and reduce demand by its customers (Garrow, 2007b). Conservation measures undertaken by the City include leak detection, changes and replacements to equipment (e.g., replacement and repair of source and individual meters), capital improvements (e.g., improvements at the WWTP), improved maintenance schedules, utility rate structure changes in 1999, water conservation messages at the local and regional levels, and distribution of conservation kits to residential water users (North Bend, 2002). Based on the Conservation Program Goals in the 2002 Water System Comprehensive Plan, the City of North Bend estimates a 10% reduction in water use from conservation measures (North Bend, 2004).

5.4 Water System Plan Updates

The City of North Bend's Water System Plan is updated every six years. The last update was in 2002, and the plan is approved through April 15, 2008 (North Bend, 2002). The water system plan provides a long-term planning strategy for the City's water utility over six and twenty-year planning periods. Updates to the water system plan will enable the City to revise the projected mitigation supply capacity (Golder, 2007b) and ensure that there will be adequate mitigation water available for the new water right over the long-term. The mitigation algorithm and operations plan will be updated as needed with each revision.

6.0 REPORTING REQUIREMENTS

6.1 Daily Mitigation System Documentation

Implementation of the mitigation plan will require daily monitoring of water production from Mt. Si Springs, Well NB-3, Hobo Springs, and Sallal Wells; streamflow at the trigger locations; return flows from the WWTP; and mitigation contributions to Boxley Creek. Remote sensors and data loggers, connected to the mitigation and production sources, maintain data on flows and quantities of water produced, which will be reported on a periodic basis to WDOE to satisfy the conditions of the permit (See Sections 6.3 and 6.4). Streamflow data from the USGS gauging stations will be available to North Bend Public Works Department staff via the City's new telemetry system which accesses USGS data. The Public Works Department will be responsible for recording all of the daily data into a database which will calculate the mitigation requirement as described in Section 4.2.

6.2 Event Reports

Event reports will be generated when the City misses a mitigation day, supplies insufficient mitigation volume, or has a water system failure. If the City misses a mitigation day or supplies insufficient mitigation volume, then the City will add that volume of water to the total mitigation volume required for the next day. A water system failure is any problem that compromises the ability to compute the mitigation algorithm. If the total volume of water produced in the preceding 24 hours is unknown (i.e., the totalizer number is unknown), then the City would mitigate using the highest level of pumping in the last three days. A report explaining the details of the event, the actions taken to ensure that mitigation was implemented, and how the City can prevent this problem in the future will be sent to WDOE within 30 days of the event. Event reports will be made available to interested stakeholders by Ecology upon request.

6.3 Initial System Reports

Quarterly reports will be generated for the first two years of operation. Reporting will be on an annual basis after the first two years. Reports will be sent to WDOE and made available to concerned stakeholders upon request.

Initial system reports will contain summary information about the mitigation operations on a daily and annual basis. The summary information will include a table detailing: 1) the daily cumulative volume of water produced from Well NB-3; 2) the net stream depletion of the volume of water produced from Well NB-3; 3) the number of days that mitigation water was required; 4) the volume of mitigation required and delivered from each mitigation source; 5) a catalog of incidents; 6) any planned improvements and; 7) data re-evaluation as Q_i (instantaneous quantity) and Q_a (annual quantity) limitations are closer. The report will also briefly describe the status of the availability of the mitigation sources, including an update to the basic information contained in Figure 4-2.

Initial system reports will also be generated quarterly during the first two years operation of any new water supply or mitigation source.

6.4 Annual System Report

Annual reports will contain summary information about the mitigation operations on a daily and annual basis. The summary information will include a table detailing: 1) the daily cumulative volume of water produced from Well NB-3; 2) the net stream depletion of the volume of water produced from Well NB-3; 3) the number of days that mitigation water was required; 4) the volume of mitigation required and delivered from each mitigation source; 5) a catalog of incidents; 6) any planned improvements and; 7) data re-evaluation as Q_i (instantaneous quantity) and Q_a (annual quantity)

limitations are closer. The annual report will also briefly describe the status of the availability of the mitigation sources, including an update to the basic information contained in Figure 4-2.

6.5 Mitigation Operations Plan Update

The mitigation operations plan will be updated after the first two years of operation. All of the water monitoring and operations data from the mitigation supply system will be used to update the mitigation operations plan.

After the initial 2-year update, the mitigation operations plan will be updated once every six years to coincide with other water system plan updates. Optimization of the mitigation system will occur as more data are collected during operation, especially during the first 5 years. The mitigation capacity will also be updated using information incorporated for planning purposes and utilization of additional water right if demonstrated. The utilization of Well NB-3 and the mitigation system components will undergo constant monitoring, which will result in improved understanding of the mitigation supply and water use efficiency.

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7.0 REFERENCES

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- Pors, T. 2007, Memorandum to D. Swenson, A. Dunn, D. Matlock, and P. Schwartzmann. Amended Mitigation Plan for North Bend Water Right Application G1-26617. March 7, 2006.

TABLES

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TABLE 2-1

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Instream Flow Requirements (WAC 173-507)

Month	Day	Snoqualmie (cfs) 12144500	Carnation (cfs) 12149000	Monroe (cfs) 12150800
January	1-31	1,550	2,500	6,000
February	1-29	1,550	2,500	6,000
March	1-31	1,550	2,500	6,000
April	1	1,550	2,500	6,000
April	2	1,550	2,500	6,034
April	3	1,550	2,500	6,069
April	4	1,550	2,500	6,104
April	5	1,550	2,500	6,139
April	6	1,550	2,500	6,174
April	7	1,550	2,500	6,209
April	8	1,550	2,500	6,245
April	9	1,550	2,500	6,281
April	10	1,550	2,500	6,317
April	11	1,550	2,500	6,353
April	12	1,550	2,500	6,389
April	13	1,550	2,500	6,426
April	14	1,550	2,500	6,463
April	15	1,550	2,500	6,500
April	16	1,550	2,500	6,542
April	17	1,550	2,500	6,584
April	18	1,550	2,500	6,626
April	19	1,550	2,500	6,668
April	20	1,550	2,500	6,711
April	21	1,550	2,500	6,754
April	22	1,550	2,500	6,797
April	23	1,550	2,500	6,841
April	24	1,550	2,500	6,885
April	25	1,550	2,500	6,929
April	26	1,550	2,500	6,974
April	27	1,550	2,500	7,018
April	28	1,550	2,500	7,063
April	29	1,550	2,500	7,109
April	30	1,550	2,500	7,154
May	1	1,550	2,500	7,200
May	2	1,550	2,500	7,254
May	3	1,550	2,500	7,309
May	4	1,550	2,500	7,364
May	5	1,550	2,500	7,420
May	6	1,550	2,500	7,476
May	7	1,550	2,500	7,533
May	8	1,550	2,500	7,589
May	9	1,550	2,500	7,647
May	10	1,550	2,500	7,705
May	11	1,550	2,500	7,763
May	12	1,550	2,500	7,821
May	13	1,550	2,500	7,880
May	14	1,550	2,500	7,940
May	15-31	1,550	2,500	8,000

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Instream Flow Requirements (WAC 173-507)

Month	Day	Snoqualmie (cfs) 12144500	Carnation (cfs) 12149000	Monroe (cfs) 12150800
June	1-15	1,550	2,500	8,000
June	16	1,550	2,453	7,832
June	17	1,550	2,408	7,668
June	18	1,550	2,363	7,507
June	19	1,550	2,319	7,350
June	20	1,550	2,275	7,196
June	21	1,550	2,233	7,045
June	22	1,550	2,191	6,897
June	23	1,550	2,151	6,753
June	24	1,550	2,110	6,611
June	25	1,550	2,071	6,473
June	26	1,550	2,033	6,337
June	27	1,550	1,995	6,204
June	28	1,550	1,957	6,074
June	29	1,550	1,921	5,947
June	30	1,550	1,885	5,822
July	1	1,550	1,850	5,700
July	2	1,512	1,804	5,558
July	3	1,476	1,759	5,419
July	4	1,440	1,715	5,283
July	5	1,405	1,673	5,151
July	6	1,371	1,631	5,023
July	7	1,338	1,590	4,897
July	8	1,306	1,551	4,775
July	9	1,274	1,512	4,656
July	10	1,243	1,475	4,539
July	11	1,213	1,438	4,426
July	12	1,184	1,402	4,315
July	13	1,155	1,367	4,208
July	14	1,127	1,333	4,102
July	15	1,100	1,300	4,000
July	16	1,077	1,276	3,917
July	17	1,055	1,253	3,836
July	18	1,033	1,230	3,756
July	19	1,011	1,208	3,678
July	20	990	1,185	3,602
July	21	970	1,164	3,527
July	22	950	1,142	3,454
July	23	930	1,122	3,382
July	24	911	1,101	3,312
July	25	892	1,081	3,243
July	26	873	1,061	3,176
July	27	855	1,042	3,110
July	28	837	1,023	3,045
July	29	820	1,004	2,982
July	30	803	986	2,920
July	31	786	968	2,859
August	1	770	950	2,800
August	2	756	930	2,734

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Instream Flow Requirements (WAC 173-507)

Month	Day	Snoqualmie (cfs) 12144500	Carnation (cfs) 12149000	Monroe (cfs) 12150800
August	3	743	909	2,669
August	4	730	890	2,605
August	5	717	871	2,543
August	6	704	852	2,483
August	7	692	833	2,424
August	8	680	815	2,366
August	9	668	798	2,310
August	10	656	781	2,255
August	11	644	764	2,202
August	12	633	747	2,150
August	13	622	731	2,098
August	14	611	715	2,049
August	15-31	600	700	2,000
September	1-15	600	700	2,000
September	16	612	718	2,047
September	17	624	736	2,095
September	18	636	755	2,144
September	19	649	775	2,195
September	20	662	795	2,246
September	21	675	815	2,299
September	22	688	836	2,353
September	23	701	857	2,408
September	24	715	879	2,465
September	25	729	902	2,523
September	26	744	925	2,582
September	27	758	949	2,643
September	28	773	973	2,705
September	29	789	998	2,768
September	30	804	1,024	2,833
October	1	820	1,050	2,900
October	2	837	1,084	2,967
October	3	855	1,120	3,036
October	4	873	1,157	3,107
October	5	892	1,195	3,179
October	6	911	1,234	3,253
October	7	930	1,274	3,329
October	8	950	1,316	3,406
October	9	970	1,359	3,485
October	10	990	1,404	3,566
October	11	1,011	1,450	3,649
October	12	1,033	1,498	3,734
October	13	1,055	1,547	3,820
October	14	1,077	1,598	3,909
October	15	1,100	1,650	4,000
October	16	1,122	1,691	4,097
October	17	1,145	1,733	4,195
October	18	1,169	1,776	4,297
October	19	1,192	1,819	4,400
October	20	1,217	1,864	4,507

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Instream Flow Requirements (WAC 173-507)

Month	Day	Snoqualmie (cfs) 12144500	Carnation (cfs) 12149000	Monroe (cfs) 12150800
October	21	1,242	1,911	4,615
October	22	1,267	1,958	4,727
October	23	1,293	2,006	4,841
October	24	1,319	2,056	4,958
October	25	1,346	2,107	5,077
October	26	1,373	2,159	5,200
October	27	1,401	2,212	5,325
October	28	1,430	2,267	5,454
October	29	1,459	2,323	5,586
October	30	1,489	2,381	5,721
October	31	1,519	2,440	5,859
November	1-30	1,550	2,500	6,000
December	1-31	1,550	2,500	6,000

TABLE 3-1
Monitoring Responsibilities

Component Monitored/Location	Parameter(s) Monitoring	Primary Mode ¹	Back-up Mode ¹	Monitored by
Mt. Si Springs	Daily water production, daily by-pass flows, daily total spring flow, and pump run times	Telemetry	Manual	North Bend Public Works Department
Well NB-3	Daily water production to North Bend, daily water production to Sallal, instantaneous flow, pump run times, and groundwater elevation	Telemetry	Manual	North Bend Public Works Department
Wastewater Treatment Plant	Daily discharge flow to river	Manual	None	North Bend Public Works Department
USGS Gauge 12144500 (Snoqualmie River near Snoqualmie)	Instantaneous Streamflow	Telemetry	Online	USGS
USGS Gauge 12149000 (Snoqualmie River near Carnation)	Instantaneous Streamflow	Telemetry	Online	USGS
USGS Gauge 12150800 (Snohomish River near Monroe)	Instantaneous Streamflow	Telemetry	Online	USGS
Hobo Springs weir	Instantaneous Flow	Telemetry	Manual	North Bend Public Works Department
USGS Gauge 12116060 ² (Masonry Pool)	Daily average Masonry Pool elevation	Online	None	USGS
Hobo Springs pump	Daily water output, instantaneous flow, and pump run times	Telemetry	Manual	North Bend Public Works Department
Intertie with Sallal Wells	Instantaneous Flow, daily	Telemetry	Manual	North Bend Public Works Department
Outfall pipe into Boxley Creek ³	Total Flow, at least weekly	Manual	None	North Bend Public Works Department
USGS Gauge 12143700 (Boxley Creek near Cedar Falls)	Daily Streamflow	Telemetry	Online	USGS
USGS Gauge 12143900 (Boxley Creek near Edgewick)	Instantaneous Streamflow	Telemetry	Online	USGS

NOTES

1. Manual readings will be communicated to the North Bend Public Works Department staff via email or other reliable means. Online data collection will be performed by the North Bend Public Works Department staff.
2. The Masonry Pool elevation data will be downloaded weekly.
3. The totalizer on the outfall pipe into Boxley Creek will be read at least weekly.

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TABLE 5-1

Instantaneous Mitigation System Water Supply after 21 Years of Projected North Bend Growth

Month	Q_h Minimum, mgd	Max Q_m , mgd	Required Sallal Q_i , mgd	Sallal Available Q_i , mgd
Jan	0.00	0.44	0.44	1.44
Feb	0.13	0.51	0.38	1.44
Mar	0.13	0.47	0.34	1.44
Apr	0.26	0.52	0.27	1.44
May	2.26	0.51	0.00	1.44
Jun	2.46	1.34	0.00	1.44
Jul	2.46	2.09	0.00	1.15
Aug	1.55	1.83	0.28	1.15
Sep	0.32	1.41	1.09	1.15
Oct	0.32	0.64	0.32	1.44
Nov	0.11	0.73	0.62	1.44
Dec	0.00	0.52	0.52	1.44

NOTES

Abbreviations: mgd = million gallons per day; Q_h = minimum daily Hobo Springs discharge;

Q_m = mitigation requirement; Q_i = instantaneous discharge

Source: Golder (2007b)

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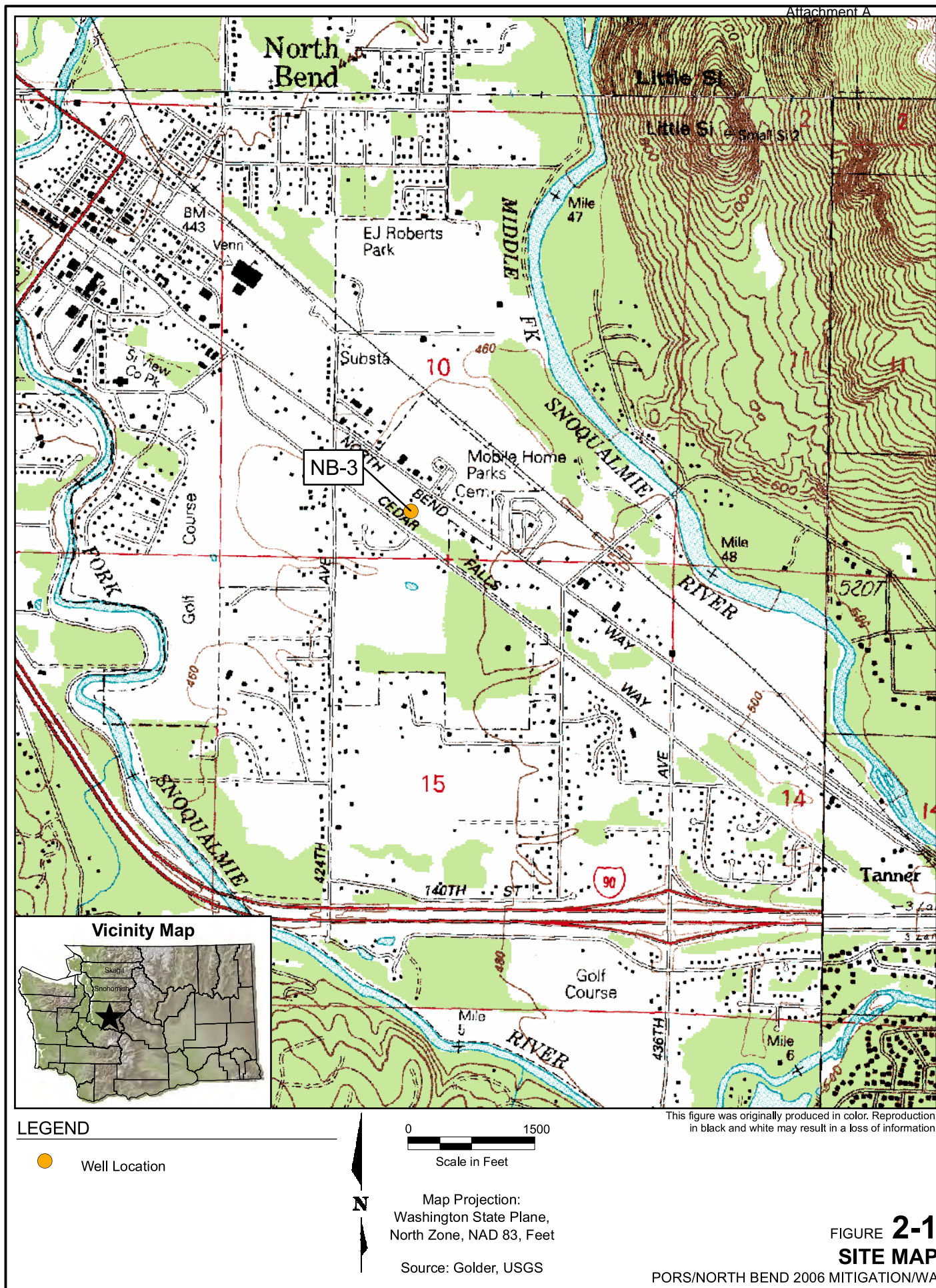
TABLE 5-2
Emergency Phone List

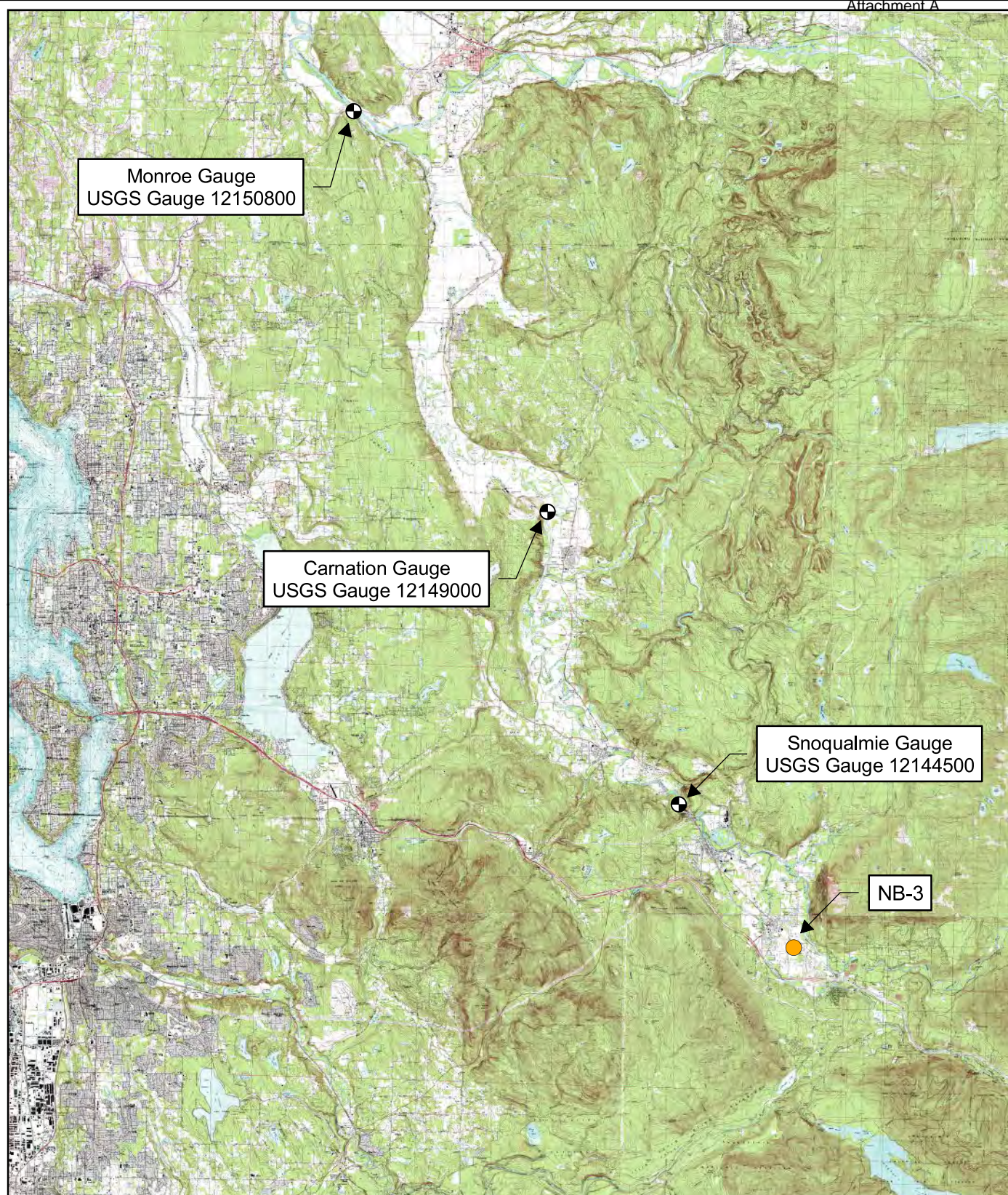
Agency/Group	Contact	Phone Number
Fire/Police	--	911
Water System Supervisor	Pat Osborne	1-425-888-0486 (during normal working hours) 1-425-736-7697 (for emergency purposes after working hours)
Water System Operator	Fergus McGrath	
King County Fire District No. 38 (business)	--	1-425-392-3433
Puget Power and Light	--	1-800-321-4123
WWTP	--	1-206-888-0282
Telephone Service - PTI Repair Service	--	1-800-533-4171
Telemetry and Meter Calibration	Reid Instruments	1-425-349-3882
Pump Repair/Maintenance	Cascade Machinery	1-206-762-0500
Chemical Supplies	Van Waters and Rogers (Kent)	1-206-872-5000
Chemical Supplies	Jones Chemical (Tacoma)	1-800-562-7920
Waterworks Supplies	Pacific Water Works	1-800-422-3081
Testing Lab (Coliform)	AM Test, In. (Redmond)	1-206-885-1664
Washington State Department of Health	NW Regional Office, Sheri Miller	1-360-664-2543
King County	Emergency Management	1-206-296-3830
King County	Public Works	1-800-527-6237
King County	24-Hour Number	1-206-296-8100
Puget Sound Energy	Main Number	1-206-255-2464
Pacific Northwest Bell	Main Number	1-206-872-5121
Puget Sound Energy	Main Number	1-206-244-0770
State Wide One-Call	Utility Locates	1-800-424-5555
Gray & Osborne, Inc., Consulting Engineer	Seattle Main Number	1-206-284-0860
Golder Associates, Inc.	Redmond Main Number	1-425-883-0777

NOTES

Source: North Bend (2002)

FIGURES





LEGEND

- Well Location
- ⊙ Gauge Location

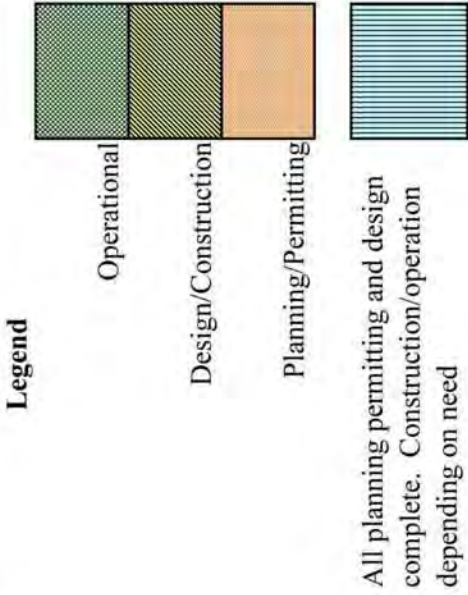
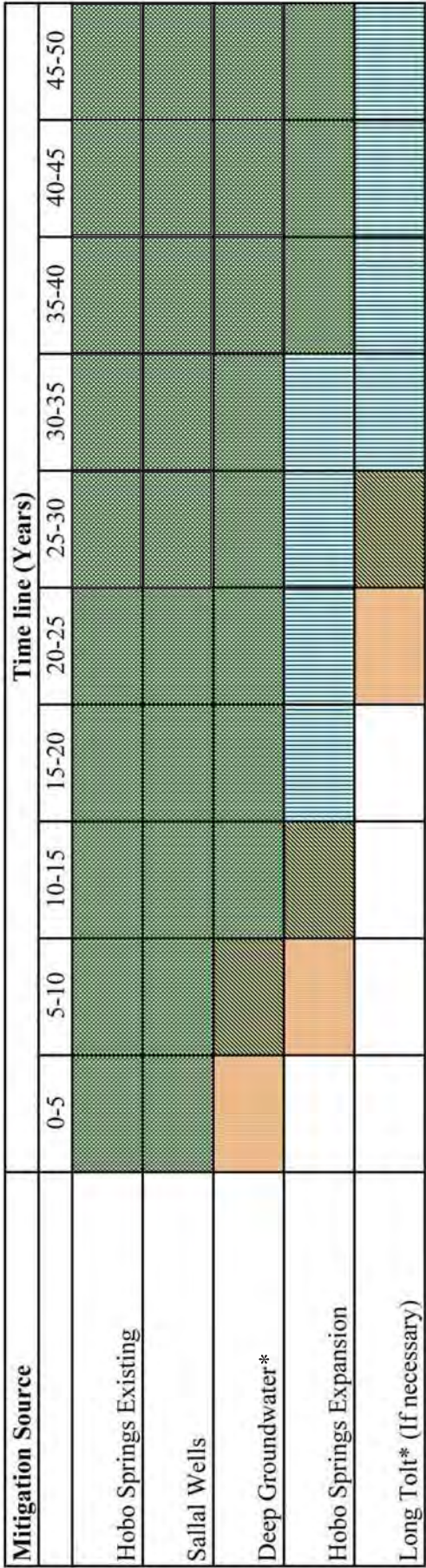


Map Projection:
Washington State Plane,
North Zone, NAD 83, Feet

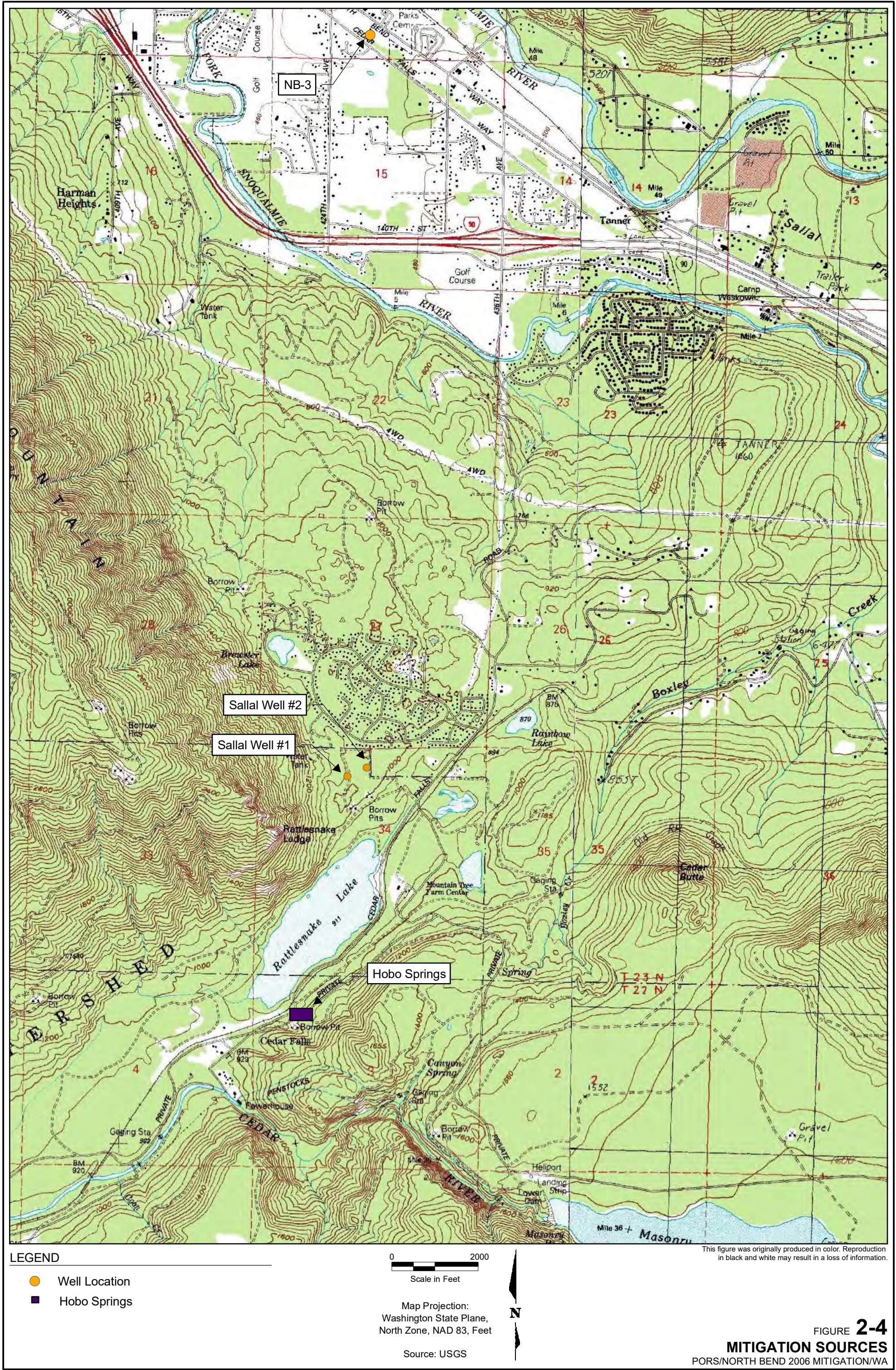
Source: Golder, USGS

This figure was originally produced in color. Reproduction in black and white may result in a loss of information.

FIGURE **2-2**
**INSTREAM FLOW
CONTROL POINTS**
PORS/NORTH BEND 2006 MITIGATION/WA



*Requires additional investigation.



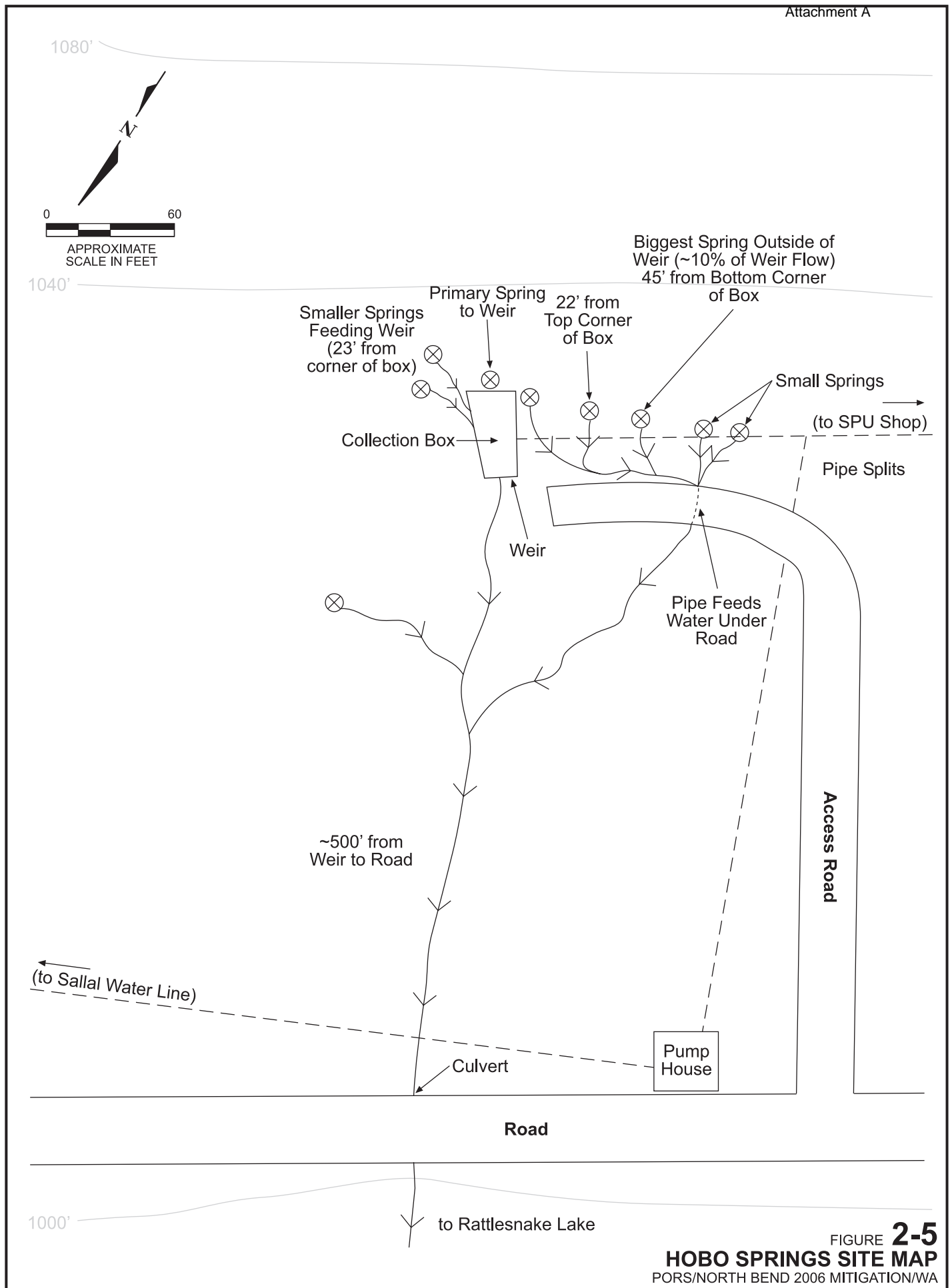
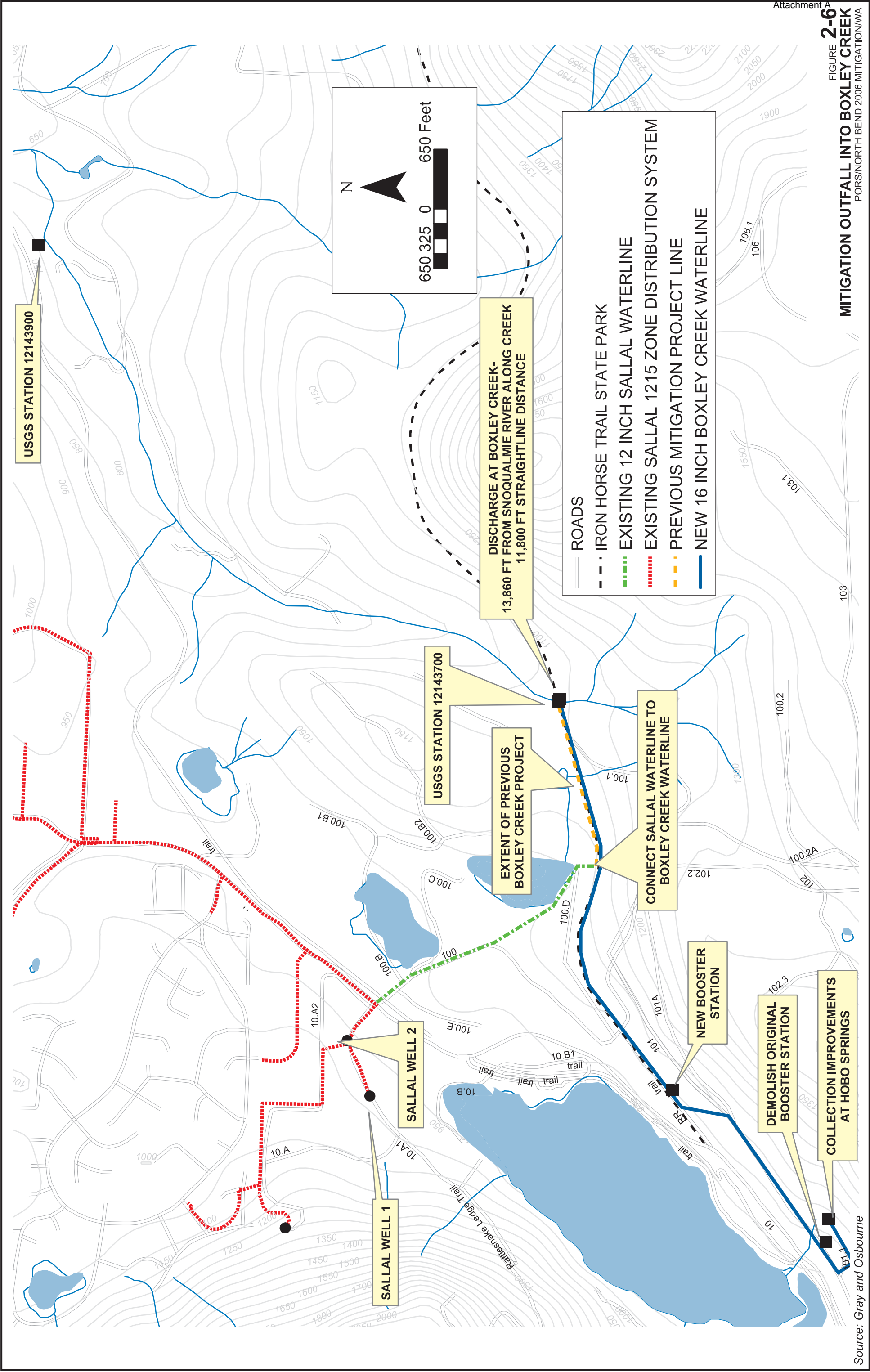
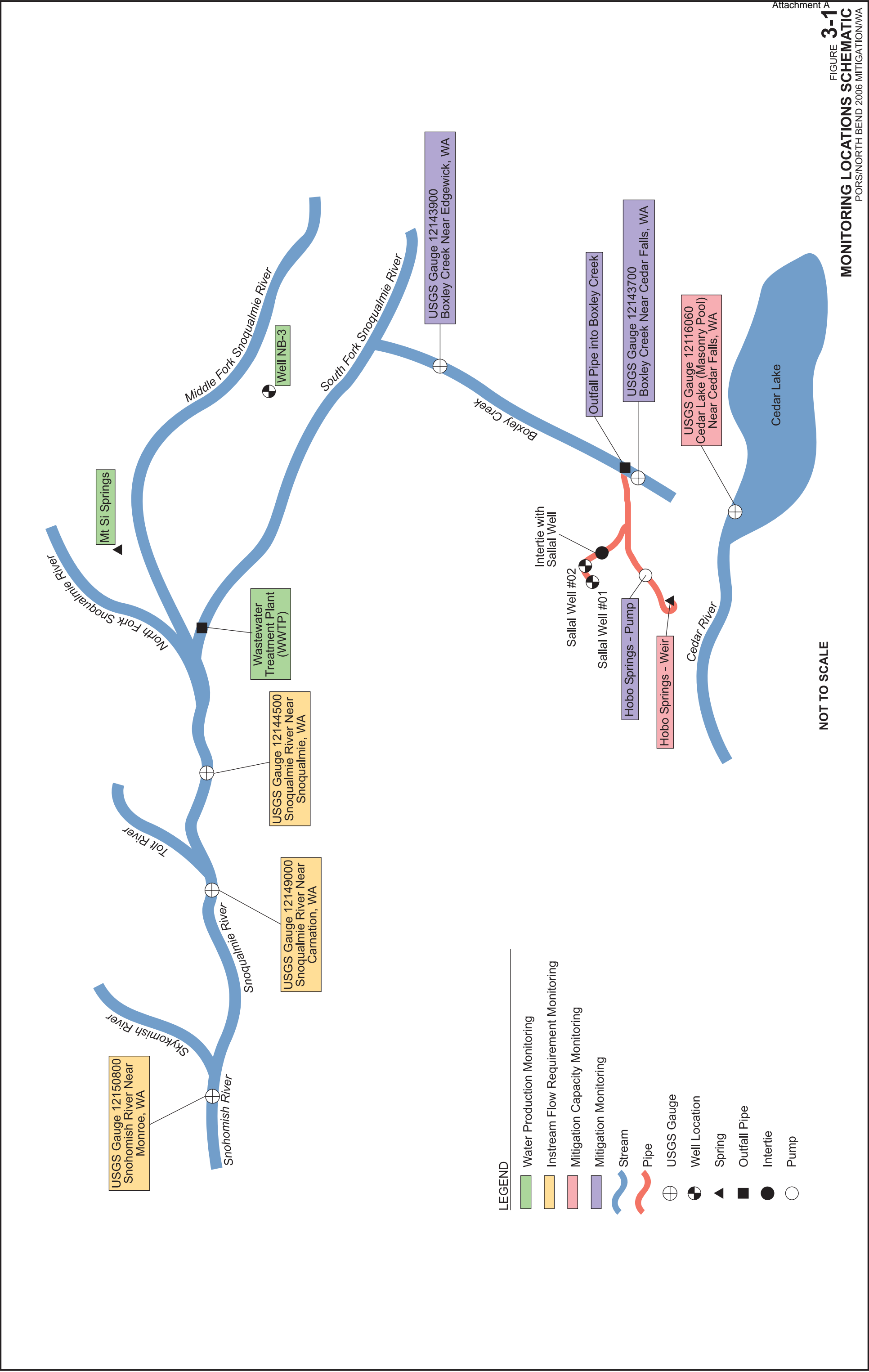


FIGURE **2-5**
HOBO SPRINGS SITE MAP
 PORS/NORTH BEND 2006 MITIGATION/WA





STEP 1: MORNING FLOW DATA COLLECTION - DAILY

Components Monitored	Actions to be Taken	Use in Mitigation Algorithm?
Mt. Si Springs water production and Well NB-3 water production in previous 24 hours	Calculate the total volume	V_{24} , V_{ER} , V_{NR}
Mt. Si Spring by-pass flow	Adjust allowable Mt. Si Spring pumping to meet senior water right conditions on by-pass flow.	No
Wastewater Treatment Plant flow from previous 24 hours	Report and catalog	No
USGS gauge 12144500 instantaneous flow	Compare minimum during previous 24 hours to instream flow requirement	Yes
USGS gauge 12149000 instantaneous flow	Compare minimum during previous 24 hours to instream flow requirement	Yes
USGS gauge 12150800 instantaneous flow	Compare minimum during previous 24 hours to instream flow requirement	Yes
Hobo Springs flow	Use the measurement in the morning	Q_h
Intertie with Sallal Wells	Calculate total volume over previous 24 hours	No

STEP 2: CALCULATE DAILY AGGREGATE MITIGATION REQUIREMENT

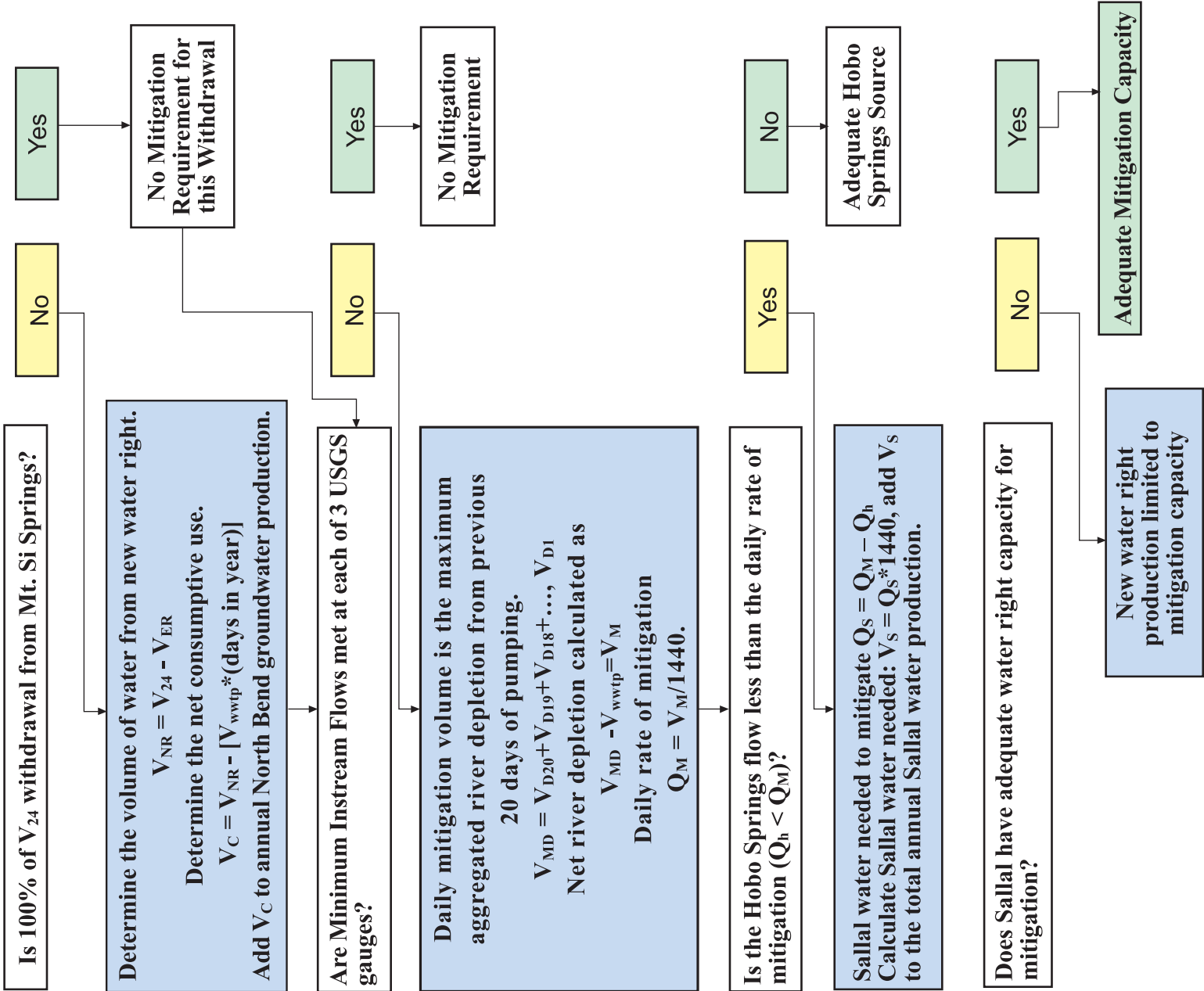
Follow the procedure in Figure 4-2 using the data collected in Step 1.

STEP 3: SUPPLY MITIGATION WATER

Water will be supplied from the initial mitigation sources, Hobo Springs and Sallal Wells. Under normal operating procedures, the City will supply the calculated volume of mitigation water (V_M) within the next 24 hours. Any delays in obtaining the necessary information to calculate the previous day's mitigation requirement will require Q_M to be recalculated from V_M using a smaller amount of time. For example, if the calculations are completed two hours late, then Q_M is calculated using a period of 22 hours or 1320 minutes: $Q_M = V_M/1320$. If normal operating procedures are not possible to maintain (e.g., there is an emergency), then the part of the daily mitigation requirement that is unfulfilled is added to the next possible day's mitigation requirement.

Mitigation Algorithm

Used to Determine Mitigation Requirement



Mitigation Algorithm Key

V_{NR} = Annual volume of water from new water right.

V_{24} = Daily volume of water produced by NB in preceding 24 hours.

V_{ER} = Annual volume of water from existing Mt. Si water right.

V_C = Annual net consumptive use from new water right.

V_{wwtp} = Daily volume of water returned from waste water treatment plant associated with new water rights.

V_{MD} = Daily maximum aggregated depletion calculated using mitigation curves.

V_{D1} = Daily volume of stream depletion occurring from pumping one day ago.

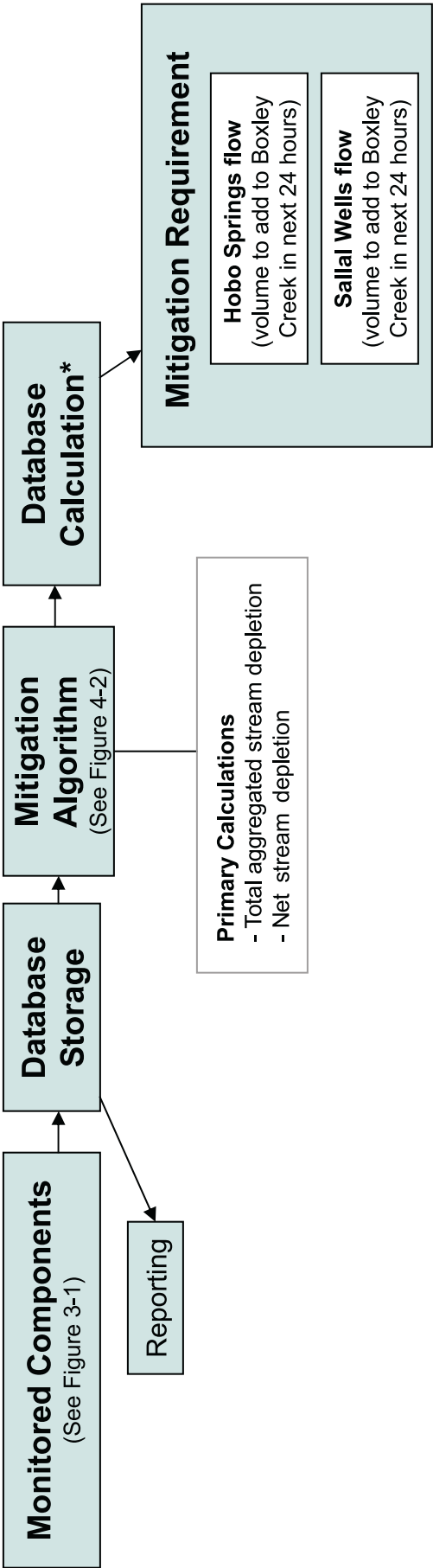
V_M = Daily mitigation volume, the net stream depletion from previous 20 days.

Q_S = Daily rate of discharge to Boxley Creek from Sallal Wells (gpm).

V_S = Daily volume of mitigation water from Sallal Wells.

Q_M = Daily rate of required mitigation water discharge for next 24 hours (gpm).

Q_h = Daily rate of discharge to Boxley Creek from Hobo Springs (gpm).



Note: * If the database is unavailable, then use the mitigation algorithm to calculate mitigation requirements (Figure 4-2) or the previous day's results.

APPENDIX A

MITIGATION FUNCTIONS

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TABLE A-1**Mitigation Curve Naming Key and Parameter Summary**

Mitigation Curve Description¹	Transmissivity (ft²/day)²	Storativity³ (dimensionless)
164,000	164,000	0.03
170,000	170,000	0.03
99,400	99,400	0.02
263,000	263,000	0.05
279,000	279,000	0.06
306,000	306,000	0.06
315,000	315,000	0.06
316,000	316,000	0.06
270,000	270,000	0.05
270,000 T Max S	270,000	0.11
316,000 T Max S	316,000	0.12
315,000 T Max S	315,000	0.12
306,000 T Max S	306,000	0.12
279,000 T Max S	279,000	0.11
263,000 T Max S	263,000	0.10
170,000 T Max S	170,000	0.07
164,000 T Max S	164,000	0.06
99,400 T Max S	99,400	0.04
270,000 T Min S	270,000	0.04
316,000 T Min S	316,000	0.04
315,000 T Min S	315,000	0.04
306,000 T Min S	306,000	0.04
279,000 T Min S	279,000	0.04
263,000 T Min S	263,000	0.04
170,000 T Min S	170,000	0.02
164,000 T Min S	164,000	0.02
99,400 T Min S	99,400	0.01

NOTES

1. Unless otherwise noted, storativity is equal to the median storativity calculated using the referenced transmissivity and is recorded in the "Storativity" column.
2. Transmissivity values from Golder (2007a) pump tests of Well NB-3.
3. Storativity is calculated using aquifer diffusivity (T/S) and corresponding transmissivity values. Median diffusivity = 3,487 ft²/min; maximum diffusivity = 5,070 ft²/min; minimum diffusivity = 1,774 ft²/min.

Source: Golder (2007b)

TABLE A-2
Mitigation Functions

Mitigation Curve Description ¹	Day																			
	Pumping Day	First Day of Mitigation	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
164,000	0.00%	63.83%	16.03%	6.90%	3.40%	1.95%	1.28%	0.95%	0.76%	0.65%	0.57%	0.51%	0.47%	0.42%	0.42%	0.40%	0.38%	0.37%	0.36%	0.35%
170,000	0.00%	64.99%	15.65%	6.39%	3.24%	1.86%	1.24%	0.93%	0.75%	0.64%	0.57%	0.52%	0.48%	0.42%	0.42%	0.40%	0.39%	0.38%	0.36%	0.36%
99,400	0.00%	60.40%	17.06%	7.78%	3.94%	2.26%	1.47%	1.06%	0.84%	0.70%	0.61%	0.55%	0.50%	0.44%	0.44%	0.42%	0.40%	0.39%	0.37%	0.36%
263,000	0.00%	62.29%	16.49%	7.29%	3.64%	2.08%	1.37%	1.00%	0.80%	0.67%	0.59%	0.53%	0.49%	0.43%	0.43%	0.41%	0.39%	0.38%	0.37%	0.36%
279,000	0.00%	57.88%	17.70%	8.40%	4.36%	2.52%	1.63%	1.16%	0.90%	0.75%	0.65%	0.58%	0.53%	0.46%	0.46%	0.44%	0.42%	0.40%	0.39%	0.38%
306,000	0.00%	61.14%	16.82%	7.58%	3.82%	2.19%	1.43%	1.04%	0.82%	0.69%	0.60%	0.54%	0.50%	0.44%	0.44%	0.42%	0.40%	0.39%	0.37%	0.36%
315,000	0.00%	62.26%	16.50%	7.30%	3.64%	2.09%	1.37%	1.00%	0.80%	0.67%	0.59%	0.53%	0.49%	0.43%	0.43%	0.41%	0.39%	0.38%	0.37%	0.36%
316,000	0.00%	62.31%	16.48%	7.28%	3.63%	2.08%	1.37%	1.00%	0.80%	0.67%	0.59%	0.53%	0.49%	0.43%	0.43%	0.41%	0.39%	0.38%	0.37%	0.36%
270,000	0.00%	63.27%	16.19%	7.04%	3.48%	2.00%	1.31%	0.97%	0.77%	0.66%	0.58%	0.52%	0.48%	0.42%	0.42%	0.40%	0.39%	0.37%	0.36%	0.35%
270,000 T Max S	0.00%	33.98%	19.47%	12.92%	8.62%	5.87%	4.10%	2.96%	2.21%	1.71%	1.38%	1.14%	0.98%	0.77%	0.77%	0.70%	0.65%	0.62%	0.58%	0.56%
316,000 T Max S	0.00%	36.41%	19.65%	12.64%	8.22%	5.48%	3.77%	2.70%	2.00%	1.55%	1.25%	1.04%	0.90%	0.72%	0.72%	0.66%	0.62%	0.58%	0.56%	0.53%
315,000 T Max S	0.00%	36.35%	19.66%	12.66%	8.23%	5.49%	3.78%	2.70%	2.01%	1.55%	1.25%	1.04%	0.90%	0.72%	0.72%	0.66%	0.62%	0.58%	0.55%	0.53%
306,000 T Max S	0.00%	35.26%	19.57%	12.78%	8.41%	5.66%	3.93%	2.82%	2.10%	1.63%	1.31%	1.09%	0.93%	0.74%	0.74%	0.68%	0.63%	0.60%	0.57%	0.55%
279,000 T Max S	0.00%	35.19%	19.58%	12.80%	8.43%	5.68%	3.94%	2.83%	2.10%	1.63%	1.31%	1.09%	0.93%	0.74%	0.74%	0.68%	0.63%	0.60%	0.57%	0.54%
263,000 T Max S	0.00%	36.38%	19.65%	12.65%	8.22%	5.48%	3.78%	2.70%	2.01%	1.55%	1.25%	1.04%	0.90%	0.72%	0.72%	0.66%	0.62%	0.58%	0.55%	0.53%
170,000 T Max S	0.00%	33.61%	19.43%	12.96%	8.68%	5.93%	4.16%	3.00%	2.25%	1.74%	1.40%	1.16%	0.99%	0.78%	0.78%	0.71%	0.66%	0.62%	0.59%	0.56%
164,000 T Max S	0.00%	37.91%	19.75%	12.46%	7.97%	5.24%	3.58%	2.54%	1.88%	1.46%	1.17%	0.98%	0.85%	0.68%	0.68%	0.63%	0.59%	0.56%	0.53%	0.51%
99,400 T Max S	0.00%	34.51%	19.53%	12.88%	8.54%	5.79%	4.03%	2.90%	2.16%	1.67%	1.34%	1.12%	0.95%	0.75%	0.75%	0.69%	0.64%	0.60%	0.57%	0.55%
270,000 T Min S	0.00%	70.78%	13.43%	5.14%	2.44%	1.43%	0.99%	0.77%	0.64%	0.55%	0.50%	0.45%	0.42%	0.38%	0.38%	0.36%	0.35%	0.34%	0.33%	0.32%
316,000 T Min S	0.00%	62.31%	16.48%	7.28%	3.63%	2.08%	1.37%	1.00%	0.80%	0.67%	0.59%	0.53%	0.49%	0.43%	0.43%	0.41%	0.39%	0.38%	0.37%	0.36%
315,000 T Min S	0.00%	75.36%	11.37%	4.03%	1.92%	1.18%	0.85%	0.68%	0.57%	0.50%	0.45%	0.42%	0.39%	0.35%	0.35%	0.34%	0.32%	0.31%	0.31%	0.30%
306,000 T Min S	0.00%	74.48%	11.78%	4.24%	2.02%	1.22%	0.88%	0.69%	0.58%	0.51%	0.46%	0.42%	0.40%	0.36%	0.36%	0.34%	0.33%	0.32%	0.31%	0.30%
279,000 T Min S	0.00%	71.88%	12.98%	4.87%	2.31%	1.37%	0.95%	0.74%	0.62%	0.54%	0.48%	0.44%	0.41%	0.37%	0.37%	0.35%	0.34%	0.32%	0.31%	0.31%
263,000 T Min S	0.00%	69.91%	13.79%	5.35%	2.55%	1.49%	1.03%	0.79%	0.65%	0.57%	0.51%	0.46%	0.43%	0.38%	0.38%	0.37%	0.35%	0.34%	0.33%	0.32%
170,000 T Min S	0.00%	77.41%	10.36%	3.57%	1.72%	1.08%	0.79%	0.64%	0.54%	0.48%	0.43%	0.40%	0.37%	0.34%	0.34%	0.32%	0.31%	0.31%	0.30%	0.29%
164,000 T Min S	0.00%	76.58%	10.80%	3.76%	1.80%	1.11%	0.81%	0.65%	0.55%	0.49%	0.44%	0.40%	0.38%	0.34%	0.34%	0.33%	0.32%	0.31%	0.30%	0.29%
99,400 T Min S	0.00%	81.25%	8.35%	2.75%	1.39%	0.91%	0.69%	0.57%	0.49%	0.43%	0.40%	0.37%	0.34%	0.31%	0.31%	0.30%	0.29%	0.29%	0.28%	0.27%

NOTES

1. Unless otherwise noted, storativity is equal to the median storativity calculated using the referenced transmissivity and is recorded in the "Storativity" column. See Table A-1 for a list of the maximum and minimum storativity values.

APPENDIX R

WATER SHORTAGE PLAN

ORDINANCE 1723

AN ORDINANCE OF THE CITY OF NORTH BEND, WASHINGTON, APPROVING AND ADOPTING A WATER CONSERVATION CODE UNDER NORTH BEND MUNICIPAL CODE CHAPTER 13.50; PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

WHEREAS, the City of North Bend desires to conserve the precious resource of water as an integral part of implementing the Sustainability Element of the Comprehensive Plan by supporting the local economy while preserving environmental quality (Comp Plan Policy E. 1. Local Economy and Environmental Quality); and

WHEREAS, NBMC 13.12.220 authorizes the City to prohibit using water for irrigation or lawn sprinkling purposes when there is a water shortage but provides neither a water conservation education or a water rebate program to assist citizens in conserving water; and

WHEREAS, the City Council desires to promote water conservation primarily through education and not regulation, to reward water users who conserve this resource and provide tools to assist citizens to reduce water use through a water rebate program; and

WHEREAS, the Sallal Water Association currently provides water service within North Bend that is not subject to any water conservation controls and this ordinance will address that deficiency; and

WHEREAS, state law requires municipal water suppliers such as the North Bend Water Utility to adopt and implement water use efficiency and conservation programs. See Chapter 90.03 RCW; WAC 246-291-140; and

WHEREAS, this ordinance will also benefit City water customers because using water efficiently helps reduce water and sewer bills. The City's goal is to achieve compliance with water conservation primarily through education, including the use of an expanded rebate program to reward water savings, but also when necessary to have enforcement tools to preserve and protect this valuable natural resource; and

WHEREAS, it is the desire of the City of North Bend to proactively conserve water to provide environmental leadership and stewardship over this precious resource; and

WHEREAS, the City Council held a Public Hearing on this matter on June 2 and 16, 2020;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF NORTH BEND, WASHINGTON, DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. NBMC Chapter 13.50 (Water Conservation), Adopted: A New Chapter 13.50 of the North Bend Municipal Code (Water Conservation) is hereby adopted as set forth in Exhibit A, attached hereto.

Section 2. Severability: Should any section, paragraph, sentence, clause or phrase of this ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this ordinance be pre-empted by state or federal law or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this ordinance or its application to other persons or circumstances.

Section 3. Effective Date: This ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

ADOPTED BY THE CITY COUNCIL OF THE CITY OF NORTH BEND, WASHINGTON, AT A REGULAR MEETING THEREOF, THIS 16TH DAY OF JUNE, 2020.

CITY OF NORTH BEND:

APPROVED AS TO FORM:

Rob McFarland, Mayor

Michael R. Kenyon, City Attorney

Published: June 26, 2020
Effective: July 1, 2020

ATTEST/AUTHENTICATED:

Susie Oppedal, City Clerk

EXHIBIT A**Chapter 13.50
WATER CONSERVATION**

13.50.000	Purpose/Intent/Goals
13.50.005	Definitions
13.50.010	Application
13.50.020	City Responsibility
13.50.030	Water Conservation Program
13.50.035	Water Rebate Program
13.50.040	Base allocation of Water
13.50.050	Wasteful Use of Water
13.50.060	Determination of Water Conservation Stages
13.50.070	Water Use Restrictions
13.50.080	New Construction
13.50.090	Irrigation System Inspections
13.50.120	Unauthorized Water Use
13.50.130	Violation Declared A Nuisance
13.50.140	Enforcement
13.50.150	Notice and Penalties
13.50.160	Remedies Cumulative
13.50.170	Variances
13.50.180	Fire and Other Emergencies
13.50.190	City Council Review

EXHIBIT A

13.50.000 Purpose/Intent/Goals

A. The purpose and intent of this chapter is to encourage water conservation for our environment and for future generations. Water conservation helps protect a shared natural resource and retains more water in the Snoqualmie River and other rivers and bodies of water for fish, wildlife and other environmental benefits. Conservation of this limited natural resource also stretches our valuable water supply to meet the needs of citizens within our urban growth area ensuring that we will have sufficient beneficial use and mitigation water for all future generations. This ordinance will also benefit city water customers because using water efficiently helps reduce water and sewer bills. The City's goal is to achieve compliance with water conservation primarily through education but when necessary to have enforcement tools to preserve and protect this precious natural resource. The City Council is exercising its broad police powers to protect the public health, safety and welfare by adopting this conservation ordinance in order to ensure the continued delivery of safe and reliable drinking water to existing and future water customers and to ensure the protection of water as a finite natural resource.

B. Goals. The goal of this chapter is to reduce general water use to achieve the purposes described in Section 13.50.000(A).

13.50.005 Definitions.

A. "Base Allocation" means the amount of water allocated to each customer class for both interior and exterior use on a monthly or billing cycle basis.

B. "Best Management Practice (BMP)" means a policy, program, practice, rule, regulation ordinance or the use of devices, equipment or facilities that result in more efficient use or conservation of water.

C. "Certified Landscape Irrigation Auditor" means a person certified to perform landscape irrigation audits by a professional trade organization or other educational organization.

D. "City" means the city of North Bend, Washington.

E. "City Administrator" means the City Administrator of the City or their designee unless otherwise stated or indicated by context.

EXHIBIT A

F. “City Customer” means a customer of the City Water System located within the corporate limits of the City of North Bend or a customer of the Sallal Water Association located within the corporate limits of the City of North Bend.

G. “City Water System” means those facilities within and without the City that are within the City’s Water Service Area or within its Urban Growth Area as defined by the Washington State Growth Management Act.

H. “Coordinated Water Plan” means the 1990 East King County Coordinated Water System Plan prepared and adopted consistent with Chapter 36.94 RCW and Title 13 of the King County Code .

I. “Customer” means any person or entity using water supplied by the City or the Sallal Water Association within the City’s Urban Growth Area and within unincorporated King County and within the City’s Water Service Area. The term includes but is not limited to: tenants of single-family dwellings or duplexes, owners of real property and management companies responsible for property management of real property.

J. “Department” means the City of North Bend Public Works utilities department.

K. “Director” means the City’s Public Works Director or their designee.

L. “Fire Chief” means the fire chief of the Eastside Fire and Rescue Department or their designee.

M. “Irrigation Service” means a water service that is exclusively for landscape irrigation purposes.

N. “Gauge at Masonry Pool” means the gauge measuring the level of water at the Masonry Pool, the smaller body of water immediately upstream of the Masonry Dam

O. “Non-City Customer” means a customer of the City Water System located outside the corporate limits of the City of North Bend.

P. “Nonresidential Customer” means a customer of the City’s water system on whose property a residence is not situated.

Q. “Person” means any person, business, firm, partnership, association, corporation, company, entity, or organization of any kind.

EXHIBIT A

R. “Residential Customer” means a Customer of the City or Sallal Water Association within the City on whose property, whether owned or rented, at least one person resides.

S. “Sallal Water Association” means a private member based association with a water service area within portions of the City and the City’s UGA.

T. “Significant” means more than a small, trivial or insignificant amount and requires a substantial amount of water being wasted or a significant adverse economic impact.

U. “Urban Growth Area” or “UGA” means a boundary created pursuant to the Washington State Growth Management Act (Chapter 36.70A RCW) within which the City is obligated to deliver “urban services,” including water service.

V. “Water Conservation” means the best management practices for the reasonable and efficient use of water for both indoor and outdoor water demands.

W. “Water Conservation Program Guidelines” means the program guidelines developed, maintained, and managed by the Director pursuant to this chapter.

X. “Water Service Area” means the boundaries of the City Water System as defined by the King County Utilities Technical Review Committee.

Y. “Wasteful Use of Water” is as defined in North Bend Municipal Code Section 13.50.050.

13.50.010 Application.

The provisions of this chapter shall apply to all Customers of the City and the Sallal Water Association within the corporate limits of the City.

13.50.020 City responsibility.

A. The City shall have the right to manage water demand for all Customers within the corporate limits of the City and for City Water System Customers outside of the corporate limits of the City but within the City’s Water Service Area.

B. Public Education Program and Public Efficiency Goals. The Director shall implement a public education program and a public process for establishing eater efficiency goals in compliance with all applicable rules, regulations and laws.

EXHIBIT A

13.50.030 Water conservation program

- A. The Director is authorized to develop best management practices for water use and conservation.
- B. The Director shall oversee this chapter's implementation, compliance with best management practices, and any laws mandating water conservation.

13.50.035 Water Rebate Program

- A. Toilets and Urinals. The Director shall implement a rebate program for the replacement of older toilets and urinals with efficient models as determined by the Director but specifically including WaterSense toilets and urinals and high-efficiency commercial flush-valve toilets.
- B. Landscaping. The Director shall implement a landscape rebate program for any customer replacing existing non drought tolerant landscaping or lawns with drought tolerant landscaping as determined by the Director.
- C. Irrigation. The Director will implement a rebate program for the replacement of automatic sprinkler systems with any efficient drip only irrigation system.
- D. Rain Collection Barrels. The Director will implement a rebate program to provide any City Customer rain barrels to use in order to collect rain and stormwater for landscape irrigation purposes
- E. Other Rebate Programs. The Director is authorized to implement any additional rebate program described in the Saving Water Partnership among the City of Seattle and other water utilities, which program is adopted by reference as now existing or later amended; provided, that this program and all rebate programs shall not be implemented unless the Finance Director determines the City Council approved budget provides sufficient funds in the water utility fund to pay for such rebate programs.

13.50.040 Base allocation of water.

The Director may develop a base allocation for each class of customer account, taking into account the needs and characteristics of each customer class. This base allocation may be used to evaluate compliance with the conservation stage in effect and to encourage the reasonable and efficient use of water. The Coordinated Water Plan provides for maximum per capita water use and is hereby incorporated herein by this

EXHIBIT A

reference as now existing or hereafter amended. For residential customers, this base allocation shall be as follows:

- (1) Lots of .75 acre or less, no more than 488 gallons of water per day (approximately 55.5 cubic meters or 1957 cubic feet per month) per household based upon the maximum per capita amount set forth in the Consolidated Water Plan; or
- (2) Lots greater than .75 acres, no more than 586 gallons of water per day (approximately 66.6 cubic meters or 2348 cubic feet per month) per household;

provided, however, if a Customer has occupants exceeding the average of 2.8 persons per household, the Customer's base allocation shall be increased pro rata based upon such additional persons and provided, further, if the Customer has a lot larger than 1 acre and believes that the size of the Customer's lot results in exceeding the above average maximums, the Customer may file an appeal to the Director to increase this maximum allocation for these parcels.

13.50.050 Wasteful use of water.

Any of the following acts or omissions, whether intentional, unintentional, willful, or negligent, shall constitute the wasteful use of water:

- A. Significant water flowing away from a property caused by excessive application(s) of water beyond reasonable or practical irrigation rates, duration of application, or other than incidental applications to impervious surfaces.
- B. Causing or permitting a significant amount of water to discharge, flow, run to waste into or flood any gutter, sanitary sewer, water course or storm drain, or to any adjacent lot, from any tap, hose, faucet, pipe, sprinkler, or nozzle. In the case of irrigation, "discharge," "flow" or "run to waste" means that water is applied to the point that the earth intended to be irrigated has been saturated with water so that additional applied water then flows over the earth. In the case of washing, "discharge," "flow," or "run to waste," means that water in excess of that necessary is applied to wash, wet, or clean the dirty or dusty object, such as an automobile, sidewalk, or parking area.
- C. Allowing water fixtures or heating or cooling devices to leak or discharge water after becoming aware of such leak or discharge, except as it applies to condensate drains.

EXHIBIT A

- D. Maintaining ponds, waterways, decorative basins, or swimming pools without water recirculation devices or with known leaks, both seen and unseen.
- E. Discharging water from, and refilling, swimming pools, decorative basins, or ponds in excess of the frequency reasonably necessary to maintain the health, maintenance, or structural considerations of the pool, basin or pond, as determined by the Director.
- F. Continued operation of an irrigation system that applies water to an impervious surface or that is in disrepair.
- G. Use of a water hose not equipped with a control nozzle capable of completely shutting off the flow of water except when positive pressure is applied.
- H. Irrigation of lawns or landscaping when it is raining.
- I. Overfilling of any pond, pool, or fountain which results in water discharging from the pond, pool, or fountain.
- J. Failure to contact a repair contractor and deliver a repair schedule to the City within five working days when a customer discovers or is notified of leaks in pipes, faulty sprinklers, or other water-related fixtures, unless the Director informs the Customer that the leak must be repaired more quickly, in which case the Customer shall use best efforts to repair the leak as soon as practicable.
- K. Irrigating lawns or landscaping between the hours of 10:00 a.m. and 6:00 p.m., unless a variance is granted by the Director. Using a sprinkler, kiddy pool, water slide or other water recreational device on a lawn for short term recreational purposes shall not constitute "irrigation".
- L. Using potable water from the City Water System for compaction, dust control, or other construction purposes without first obtaining approval from the Director as provided in North Bend Municipal Code Section 13.50.080 and a meter from the City.
- M. Installing a nonrecirculating system in any new automatic car wash or new commercial laundry system or failure to utilize current best management practices for water conservation that are industry standards.

EXHIBIT A

N. A customer repeatedly exceeding their base allocation of water as described in Section 13.50.040 during stage two or stage three of conservation as described in Section 13.50.070.

13.50.060 Determination of water conservation stages.

In determining the City Water System's water conservation stage, the Director shall determine whether that system's water supplies available for potable/beneficial use and mitigation water are sufficient to meet the current customer demands on that system and shall consider, among other things:

- A. any variations in the reliability of the water supplies available to the City Water System;
- B. availability of nonpotable water to meet nonpotable demands on the City Water System;
- C. the success, or lack thereof, of previous declarations of a less stringent water conservation stage in causing the water-use reductions sought by the City; and
- D. any agreements between the City and local water purveyors for deliveries of additional water supplies to the City. The Director will select the necessary stage for conservation.

13.50.070 Water use restrictions.

Water use restrictions during the various conservation stages shall, at a minimum, be as listed below and may be augmented by other restrictions as determined necessary by the City Administrator.

- A. During the stage one (basic stage, which will automatically occur each August 15) conservation stage, the following restrictions shall be enforced:
 - 1. Water will be used for beneficial uses; all wasteful use of water is prohibited.
 - 2. Water shall be confined to the Customer's property and shall not be allowed to significantly run off to adjoining property or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
 - 3. Free flowing hoses are prohibited for all landscape watering, vehicle and equipment washing, ponds, evaporative coolers and livestock watering troughs.

EXHIBIT A

Automatic shut-off devices shall be installed on any hose or filling apparatus in use for the foregoing or similar purposes.

4. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak proof. Pool draining and refilling shall be allowed only to the extent required for health, maintenance, or structural considerations, and must otherwise comply with all applicable federal, state, and local stormwater management requirements.

5. Irrigation of lawns and other landscaped areas is permitted without restrictions as to the day that watering can occur.

B. During the stage two (The Gauge at the Masonry Pool shall be at 1523 feet or less) conservation stage, the following restrictions shall be enforced:

1. All stage one (basic stage) restrictions shall continue to be enforced, except to the extent they are replaced by more restrictive requirements imposed by this section.

2. Landscape and pasture irrigation, except drip irrigation, shall be limited to a maximum of three days per week based on the following odd-even schedule, except drip irrigation may be conducted on any day.

a. Customers with street addresses that end with an odd number may irrigate only on Tuesdays, Thursdays, and Saturdays.

b. Customers with street addresses that end with an even number may irrigate only on Wednesdays, Fridays, and Sundays.

c. No irrigation is permitted on Mondays.

3. Hand and manual watering follows the same odd/even day schedule and may be done anytime during the day.

4. Washing of streets, parking lots, driveways, sidewalks, buildings or other hardscape surfaces is prohibited, except as necessary for health, sanitation or fire protection purposes.

5. Restaurants shall serve water only upon specific request.

EXHIBIT A

6. Public and private streetscape landscaping (medians and frontage) may be watered only on the same schedule as Customers with street addresses that end with an even number.
 7. No water from the City Water System shall be used for construction purposes such as dust control, compaction, or trench jetting, unless the use is approved by the Director.
- C. During the stage three (The Gauge at the Masonry Pool shall be at 1517 feet or less) conservation stage, the following restrictions shall be enforced:
1. All stage two restrictions shall continue to be enforced, except to the extent they are replaced by more restrictive requirements imposed by this section.
 2. Landscape and pasture irrigation, except drip irrigation, shall be limited to a maximum of one day per week based on the following odd-even schedule.
 - a. Customers with street addresses that end with an odd number may irrigate only on Tuesdays.
 - b. Customers with street addresses that end with an even number may irrigate only on Wednesdays.
 - c. No irrigation is permitted on Mondays, Thursdays, Fridays, Saturdays and Sundays.
 3. Public and private streetscape landscaping (medians and frontage) may be watered only on the same schedule as customers with street addresses that end with an even number.
 4. No water from the City Water System shall be used to drain and refill swimming pools, artificial lakes, ponds, or streams and no new permits for swimming pools, artificial lakes, ponds or streams shall be issued until the water conservation stage has been declared to be stage one.
 5. Water use for ornamental ponds and fountains is prohibited unless required to maintain existing vegetation, to sustain existing fish/animal life or as necessary for public health reasons.

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6. New or expanded landscaping on properties is limited to drought-tolerant trees, shrubs, and ground cover and no new turf or grass shall be planted, hydro-seeded or laid.
7. Washing of automobiles or equipment shall be done at a commercial establishment that uses recycled or reclaimed water.
8. A customer shall contact a repair company to repair all water leaks within twenty-four hours of notification by the utilities department or service may be discontinued.
9. Flushing of sewers or fire hydrants is prohibited, except in case of an emergency and for essential operations.
10. Flushing of fire protection systems is prohibited, except during required maintenance or servicing of the system.
11. No water from the City Water System shall be used for construction purposes such as dust control, compaction, or trench jetting, unless the use is necessary for fire protection system testing, maintenance, or acceptance by the Fire Chief.

13.50.080 New Construction.

A. Construction Water. Water for construction purposes obtained from the City's water supply may only be used within the City's existing corporate boundary. Water for dust control, compaction, and other construction activities shall be subject to the following conditions:

1. Use of water from the City Water System for construction purposes shall require a City-issued construction water meter and a refundable security deposit that includes a monthly meter rental fee as established by the Department. Prior to such water use, the construction water customer must obtain approval from the Director to use the water for construction and agree to comply with all of the requirements of this chapter. The Director may impose such additional conditions on the use of such water, including, but limited to, conditions regulating the purpose for the use of the water, rate of use, location, frequency and quantity of use, and such other conditions as deemed reasonably necessary by the Director to effectuate the purposes of this chapter. The construction meter shall be located by

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the Department and shall only be relocated or removed by the Department. Unauthorized relocation or removal of a construction meter shall be deemed theft and the offender shall be subject to the penalties set forth in North Bend Municipal Code Section 13.50.170.

2. Construction water shall only be drawn through a construction water meter. Construction water drawn through an unmetered connection shall be deemed theft of water and shall be grounds for the deposit on the construction meter to be forfeited. The offender shall also be subject to the penalties specified in North Bend Municipal Code Section 13.50.150. In the event the person identified as drawing water without a metered connection does not have a meter, the action shall be deemed theft and the offender shall be subject to the penalties specified in North Bend Municipal Code Section 13.50.150.

3. These requirements for construction water use may be modified or supplemented by other conservation measures as determined appropriate by the Director for the declared conservation stage. The Director may terminate the approval granted to use the construction water based on water use restriction stages, violation of the terms and conditions of use, and/or for conduct that amounts to wasteful use of water.

B. New Construction Requirements.

1. Irrigation. All landscape beds, if irrigated, shall be irrigated with a drip irrigation system and not with an automatic sprinkler system.

2. Rain barrels. All gutters shall connect to rain barrels with hose bibs to allow a property owner to irrigate with storm water.

3. Landscaping. All new landscaping shall comply with other chapters of the NBMC and be drought tolerant to the greatest extent possible.

4. Commercial Construction. All commercial construction shall consider the use of on site underground vaults to collect stormwater for landscape irrigation and roof storm water collections to be used for landscape irrigation.

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13.50.090 Irrigation system inspections.

All customers, public and private, with a parcel over one acre shall conduct an annual irrigation system inspection prior to the start of the irrigation season on May 1st of each year. This inspection shall be performed by a Certified Landscape Irrigation Auditor or licensed landscape or irrigation contractor and the results forwarded to the Department in accordance with the procedure outlined in the water conservation program guidelines. Single-family residences are exempt unless the Director determines there has been wasteful use of water on a customer's premises and the owner has either not corrected the condition or contacted a contractor to correct the conditions within five days after the City provided written notification to discontinue such practice.

Customers that have a current irrigation system check-up on file with the Department will be allowed one courtesy water waste warning before being deemed in violation of this chapter.

13.50.120 Unauthorized water use.

A. An illegal connection to the City Water System shall either be metered by the property owner within the time specified by the Department or disconnected at the discretion and direction of the Director, and the offender shall be subject to the penalties specified in North Bend Municipal Code Section 13.50.150.

B. Unauthorized use of a fire hydrant, public or private, for anything other than fire flows or permitted and metered construction water shall subject the offender to the penalties specified in North Bend Municipal Code Section 13.50.150 and Chapter 8.36, North Bend Fire Code.

13.50.130 Violations declared a nuisance.

Any activity in violation of this chapter will adversely and seriously affect the public health, safety, and welfare, is hereby declared to be a public nuisance and may be remedied as provided in this chapter, any other applicable portion of the North Bend Municipal Code or applicable state law.

13.50.140 Enforcement.

A. This chapter shall be enforced pursuant to the provisions of this Chapter, Chapters 1.20 and 8.08 of the North Bend Municipal Code, and any other enforcement mechanism available to the City under the North Bend Municipal Code and/or applicable law.

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B. Unless otherwise expressly provided in this chapter, the Director shall enforce the provisions of this chapter.

13.50.150 Notice and Penalties

A. The goal of the provisions of this chapter are to achieve voluntary compliance from the Customer, and the City will take reasonable measures to assure the Customer has information available to promptly and efficiently address water use issues. Where voluntary compliance cannot be achieved through initial contacts, education and warnings, then appropriate administrative penalties and further action are required. Except as otherwise provided herein, consecutive violations for the same condition causing such violation of any provision of this chapter during a calendar year shall be addressed as follows:

Customer Contact	Notice or Penalty
First	Personal or written notification (or both) of the condition violating a provision of this Chapter with a request to correct the condition
Second	Written notification and issuance of a notice to correct violation. Penalty of up to \$25 a day for City Customers and up to \$50 a day for Non-City Customers, as defined
Third	Issuance of an administrative penalty up to \$100 a day for City Customers and up to \$200 a day for Non-City Customers, as defined; and/or other penalties as provided in the Notice of Violation and/or as determined by the Director

B. Penalties.

1. Each of the remedies identified in Chapters 1.20 and 8.08 of the North Bend Municipal Code shall be available for enforcement of the provisions of this chapter. Each day a violation of this chapter continues, it shall be deemed a separate violation subject to the above penalties.

2. In addition to any other penalties provided by this chapter, if a Customer of the City Water System violates any of the water use restrictions during a stage two or three water conservation stage, and such conditions are not corrected within five days after the Customer is given written notice, the City is authorized to do any or all of the following:

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a. Meter any flat rate service connection and apply the regularly established metered rates. If the parcel has over two thousand five hundred square feet of landscaping, a separate landscape meter may be installed. Costs for the water meters and installation shall be paid by the property owner.

b. If the service is metered, the Customer shall be billed at twice the metered rate during the time that the violation continues. If more than two thousand five hundred square feet are irrigated and the parcel does not have a separate irrigation meter, then an irrigation meter may be installed. The Customer shall be billed at twice the metered rate during the time the violation continues. Costs for the water meter, and for any required cross-connection controls and installation, shall be paid by the property owner.

C. Appeal. Any appeal of administrative penalties imposed pursuant to this Chapter, any order to install a mandatory water meter, or any other orders or decisions of the Director shall be appealable to the City Administrator. Such appeal must be made to the City Clerk within fourteen (14) days of the Customer's receipt of the notice of the penalties being appealed. Such appeal shall clearly state the factual and/or legal basis for such appeal and be accompanied by a \$35.00 appeal fee. The City Clerk shall forward that appeal to the City Administrator, the Director, and the City Attorney. The City Administrator shall make best efforts to issue a decision on such appeal within thirty (30) days of the date such appeal is filed with the City Clerk. The City Administrator's decision shall be the final administrative decision and there shall be no right of appeal to the City Hearing Examiner nor the City Council.

13.50.160 Remedies cumulative.

The remedies set forth in this chapter are cumulative to any other remedy available to the city. Pursuit of one remedy shall not preclude any other remedy, and nothing contained in this chapter shall limit or be deemed to prevent the city from pursuing any other remedy available to the city under the North Bend Municipal Code or other applicable law

13.50.170 Variances.

In unusual circumstances, application of this chapter may cause unnecessary hardships or results or adversely impact public recreational activities which promote economic development inconsistent with this chapter's purposes and intent. Therefore, exemptions and variances to some of the requirements of this chapter may be appropriate as delineated below.

EXHIBIT A

A. Exemption. The irrigation of recreational ballfields owned by a public agency or a private party, open to the general public and used for tournament purposes which promote tourism and economic activity are exempt from those portions of this chapter which would significantly interfere with delivering such public recreational services.

B. Authority to Grant Variances. The Director may grant variances from this chapter's provisions during a stage one, two, or three conservation stage as specified in North Bend Municipal Code Section 13.50.070 , Water use restrictions.

C. Other Variances. Customers who seek a variance from this chapter for any reason other than the needs of new landscaping, shall submit to the Department a written request for variance, setting forth, in detail, the extraordinary circumstances that support the application. The Director may approve the application in their discretion; provided, that the variance allows the applicant to use only the minimum amount of water in addition to that allowed by this chapter that the Director reasonably believes is necessary to satisfy the circumstances that support the application. Any such variance shall terminate one year after its issuance, subject to an application for its renewal.

13.50.180 Fire and other emergencies.

Nothing in this chapter limits or may be construed as limiting the availability of water for extinguishing fires, meeting the demands of any other similar emergency, or routine inspection and maintenance of fire hydrants.

13.50.190 City Council Review.

City staff will provide annual water reports to the City Council showing customers' water use for the prior year in order for the City Council to determine the effectiveness of this chapter.

CITY OF NORTH BEND

KING COUNTY

WASHINGTON



WATER SHORTAGE PLAN

G&O #19473
JUNE 2020



Gray & Osborne, Inc.
CONSULTING ENGINEERS

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INTRODUCTION

The City of North Bend (City) has developed this water shortage plan in conjunction with City Ordinance 1723. The water shortage plan addresses the potential water shortages outlined in the City's 2020 Water System Plan and in Golder Associates watershed and water demand modeling and analysis.

The City operates two water sources, Mount Si Springs and the Centennial Well. Each source has its own withdrawal limitations. Mount Si Springs has a minimum bypass requirement stipulating that 3 cubic feet per second of flow must pass over the weir and into the river. The Centennial Well hydraulically influences the Snoqualmie River and, during periods of low instream Snoqualmie River flow, mitigation water must be supplied as a condition of the water right. As of June 2020, the City's sole functioning mitigation source is Hobo Springs, a spring source owned by Seattle Public Utilities (SPU). Water is purchased from SPU and is conveyed from Hobo Springs near Cedar Falls to Boxley Creek, a Snoqualmie River tributary.

In a typical year, the City's water infrastructure and water rights can adequately support water demand including mitigation; however, in the event of a drought, the City's water sources and the conditions governing their use may require increased measures to manage demands and keep them within the City's available sources. The City's Centennial Well draws from an aquifer that can influence the flow in the Snoqualmie River. During periods when instream flow targets are not met in the Snoqualmie River, the City is obligated to mitigate the well withdrawal as a condition of their water right. While period of low instream flows can occur any time during the year, they often occur during the drier period near the end of summer and the beginning of autumn.

The available flow from Hobo Springs for mitigation is dependent upon the level of the Masonry Pool, which is managed by Seattle Public Utilities. The level decreases seasonally with the lowest level usually occurring in October with the corresponding minimum flows in Hobo Springs at this time. During a very dry year, the level of the Masonry Pool can drop to a point where the flow from Hobo Springs may decrease to where it cannot meet the full Centennial Well capacity. This was the case in 2015, a historically dry year, when the available mitigation water in Hobo Springs limited the amount that could be pumped from the Centennial Well.

In addition, during a drought, the available flows at Mount Si Springs can fall below the minimum 3.0 cubic feet per second, rendering the source inoperable for the City's use for water production. Consequently, the City intends to use this Water Shortage Plan to ensure that the City's water demands are managed within the City's ability to fulfill their water right mitigation obligations.

The Water Shortage Plan identifies critical elevations of Masonry Pool at 1,550, 1,523 and 1,517 feet at which the various stages of the Water Shortage plan described below are implemented. When the water level reaches 1,550 feet, the Masonry Pool separates from

Chester Morse Pool, reducing the amount of water that could be conveyed through the hillside to Hobo Springs. At 1,523 feet, pool drawdowns typically increase as the water is used for stream augmentation purposes. At 1,517 feet, Hobo Springs water production is limited and may be below the capacity of the Centennial Well.

The City's maximum daily water demand usually coincides with the hottest days of the year with customers use water for irrigation, recreation, and consumption. Decreasing these demand peaks during periods of limited mitigation supply is key to the City's water management strategy. The goal of this water shortage plan is to clearly articulate the water shortage measures at each stage of the Water Shortage Plan. These measures and criteria are discussed in the following section.

WATER SHORTAGE PLAN

The City of North Bend's Water Shortage plan has three stages which are triggered either by the elevation of Masonry Pool or in the case of Stage 1, by a calendar date. Each stage has associated specific conservation measures that the City will implement. These stages and the associated measures are summarized below. Note, for the most up to date criteria and detailed conservation measure please refer to the most recent water conservation city ordinance.

STAGE 1

Criteria

Stage 1 will be automatically triggered on August 15th of every year.

Conservation Measures

The water conservation measures for Stage 1 shall be the following:

- Water consumption is limited to beneficial uses.
- Water does not surpass saturation in an effort to avoid surface runoff off of a customer's property.
- Automatic shut-off devices must be used on any free-flowing hose application.
- Recirculation pumps will be used with all pools, spas, and ornamental fountains/ponds.
- Irrigation of lawns and other landscaped areas may continue without restrictions.

STAGE 2

Criteria

Stage 2 will automatically be triggered when the Gauge at the Masonry Pool reads a level of 1,523 feet or less.

Conservation Measures

The water conservation measures for Stage 2 shall be the following:

- All Stage 1 measures will continue unless replaced by more restrictive requirements.
- All non-drip landscape and pasture irrigation (including hand watering) will be limited to a maximum of 3 days per week on designated days.
- All drip irrigation may be continued on any day.
- Washing of streets, parking lots, driveways, sidewalks, buildings or other hardscape surfaces is prohibited.
- Restaurants will only serve water upon specific request.
- Watering of public and private street landscaping is limited to a maximum of 3 days per week on designated days.
- No water from the City Water System shall be used for construction purposes unless otherwise approved.

STAGE 3

Criteria

Stage 3 will automatically be triggered when the Gauge at the Masonry Pool reads a level of 1,517 feet or less.

Conservation Measures

The water conservation measures for Stage 3 shall be the following:

- All Stage 1 and 2 measures will continue unless replaced by more restrictive requirements.

- All non-drip landscape and pasture irrigation shall be limited to a maximum of 1 day per week on designated days.
- Watering of public and private street landscaping is limited to a maximum of 1 day per week on designated days.
- No draining and refill swimming pools, artificial lakes, ponds, or streams.
- No new permits for swimming pools, artificial lakes, ponds or streams shall be issued until the water conservation stage has been declared to be Stage 1.
- Water cannot be used for ornamental ponds unless it is necessary to maintain existing vegetation, to sustain fish/animal life, or for public health purposes.
- Any new or expanded landscaping must be limited to drought-tolerant trees, shrubs, and ground cover.
- Automobiles can only be washed at commercial establishments that uses recycled or reclaimed water.
- A contractor must be contacted to fix any residential leaks within 24 hours of notification by the utilities department.
- Sewers or fire hydrants flushing will only occur in case of an emergency and for essential operations.
- No water from the City Water System shall be used for construction purposes unless deemed essential for fire prevention.

APPENDIX S

CAPITAL IMPROVEMENT PLAN
PROJECT COST ESTIMATES

ASSUMPTIONS FOR COST ESTIMATES

Tax rate		8.9 %			
Contingency		20 %			
Engineering and Administrative Costs		30 %			
Mobilization, Cleanup and Demobilization		8% of subtotal without tax and contingency (round to \$1000)			
4-inch DI Water Pipe, Including Fittings	\$	65	=UNIT PRICE		
6-inch DI Water Pipe, Including Fittings	\$	70	=UNIT PRICE		
8-inch DI Water Pipe, Including Fittings	\$	85	=UNIT PRICE		
10-inch DI Water Pipe, Including Fittings	\$	100	=UNIT PRICE		
12-inch DI Water Pipe, Including Fittings	\$	150	=UNIT PRICE		
16-inch DI Water Pipe, Including Fittings	\$	180	=UNIT PRICE		
24-inch DI Water Pipe, Including Fittings	\$	-	=UNIT PRICE		
12-inch HDPE Water Pipe, HDD	\$	220	=UNIT PRICE		
Locate Existing Utilities		2.5% of subtotal without mobilization, tax and contingency (round to \$1000)			
Erosion Control		2.5% of subtotal without mobilization, tax and contingency (round to \$1000)			
Additional Pipe Fittings (LBS)		4 -inch	0.08 * Pipe Length=LBS (Round to 50 LBS)		
Additional Pipe Fittings (LBS)		6 -inch	0.12 * Pipe Length=LBS (Round to 50 LBS)		
Additional Pipe Fittings (LBS)		8 -inch	0.45 * Pipe Length=LBS (Round to 50 LBS)		
Additional Pipe Fittings (LBS)		10 -inch	0.47 * Pipe Length=LBS (Round to 50 LBS)		
Additional Pipe Fittings (LBS)		12 -inch	0.50 * Pipe Length=LBS (Round to 50 LBS)		
Additional Pipe Fittings (LBS)		16 -inch	0.60 * Pipe Length=LBS (Round to 50 LBS)		
UNIT PRICE	\$	7.00	PER LB		
Trench Safety Systems	\$	5.00	per LF of Pipe Length		
4-inch Gate Valves	\$	1,000	EA	2	Every 300 feet
6-inch Gate Valves	\$	1,200	EA	2	Every 300 feet
8-inch Gate Valves	\$	1,500	EA	2	Every 300 feet
10-inch Gate Valves	\$	2,200	EA	2	Every 300 feet
12-inch Gate Valves	\$	3,000	EA	2	Every 300 feet
16-inch Butterfly Valves	\$	10,000	EA	2	Every 600 feet
18-inch Butterfly Valves	N/A		EA	2	Every 600 feet
24-inch Butterfly Valves			EA	2	Every 600 feet
8-inch Tapping Tee & Valve	\$	3,500	EA		
Hydrant Assembly	\$	5,500	EA	Every	400 feet
TRENCH WIDTH		PIPE SIZE	WIDTH (ft)		
		4	2.5		
		6	2.5		
		8	3.0		
		10	3.5		
		12	3.5		
		16	4.0		
		18	4.5		
LANE WIDTH		WIDTH (ft)	12.0		
		DEPTH (feet)	WEIGHT (TN/CY)	MATL OF LENGTH FACTOR	PRODUCT
Gravel Backfill		4.00	1.0	1.1	1.00
Cost per CY	\$	35.00			
CDF		0.00	1.0	1.1	1.00
Cost per CY	\$	150.00			
Foundation Gravel		0.50	1.8	1.1	0.50
Cost per TN	\$	35.00			
HMA Cl. 1/2 PG 58-22		0.33	1.80	1.1	1.00
Cost per TN	\$	200.00			
Sawcutting	\$	4.00	= Cost per LF of sawcutting		
Crushed Surfacing, Top Course		4	1.8	1.1	1.00
Cost per TN	\$	30.00			
Cold Mix Asphalt		0.25	1.800	1.1	0.50
Cost per TN	\$	170.00			
Connections to Existing System	\$	6,000	EA		
3/4" Service Connections, complete	\$	1,000	EA		
1-1/2" Service Connections, complete	\$	2,000	EA		
Traffic Control	\$	100	EA	8	HRS per 300 feet

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT G-1
General AC Main Replacement Project**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 26,000	\$ 26,000
2	8-inch DI Water Pipe, Including Fittings	1,400 LF	\$ 85	\$ 119,000
3	Locate Existing Utilities	LUMP SUM	\$ 8,000	\$ 8,000
4	Erosion Control	LUMP SUM	\$ 8,000	\$ 8,000
5	Additional Pipe Fittings	630 LB	\$ 7.00	\$ 4,410
6	Trench Safety Systems	LUMP SUM	\$ 7,000	\$ 7,000
7	8-inch Gate Valves	8 EA	\$ 1,500	\$ 12,000
8	Fire Hydrants	4 EA	\$ 5,500	\$ 22,000
9	Crushed Surfacing, Top Course	1,230 TN	\$ 30	\$ 36,900
10	Foundation Gravel	80 TN	\$ 35	\$ 2,800
11	HMA Cl. 1/2 PG 58-22	170 TN	\$ 200	\$ 34,000
12	Sawcutting	2,800 LF	\$ 4	\$ 11,200
13	Cold Mix Asphalt	64 TN	\$ 170	\$ 10,908
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	3/4" Service Connections, complete	28 EA	\$ 1,000	\$ 28,000
16	Traffic Control	56 HRS	\$ 100	\$ 5,600
Subtotal.....				\$ 347,818
Tax rate (8.9%).....				<u>30,956</u>
Subtotal:.....				\$ 378,774
Contingency (20%).....				<u>\$ 76,226</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 455,000
Engineering and Administrative Costs (30%):.....				<u>\$ 136,500</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 592,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
STORAGE IMPROVEMENT ST-1
0.5 MG I-90 Reservoir Recoating and Improvements**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM		\$ 36,000	\$ 36,000
2	Locate Existing Utilities	LUMP SUM		\$ 8,000	\$ 8,000
3	Erosion Control	LUMP SUM		\$ 8,000	\$ 8,000
4.	Exterior Reservoir Prep and Recoating	1	LS	\$120,000	\$120,000
5.	Interior Reservoir Prep and Recoating	1	LS	\$150,000	\$150,000
6.	Containment	1	LS	\$ 34,000	
7.	Removal of Mill Scale	4,000	SF	\$ 3	\$12,000
8	Ladder Security and Intrusion Switches	1	LS	\$ 15,000	\$ 15,000
9	Site Security Fencing	1000	LF	\$ 40	\$ 40,000
10	Seismic Vault and Flexible Connections	1	TN	\$ 80,000	\$ 80,000
11	General Restoration	1	LS	\$20,000	\$ 20,000
Subtotal.....					\$ 489,000
Tax rate (8.9%).....					<u>43,521</u>
Subtotal:.....					\$ 532,521
Contingency (20%).....					<u>\$ 106,479</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....					\$ 639,000
Engineering and Administrative Costs (30%):.....					<u>\$ 191,700</u>
TOTAL ESTIMATED PROJECT COST:.....					<u><u>\$ 831,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)					

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
STORAGE IMPROVEMENT ST-2
0.75 MG Forster Woods Reservoir Recoating and Improvements**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM		\$ 43,000	\$ 43,000
2	Locate Existing Utilities	LUMP SUM		\$ 9,000	\$ 9,000
3	Erosion Control	LUMP SUM		\$ 9,000	\$ 9,000
4.	Exterior Reservoir Prep and Recoating	1	LS	\$ 175,000	\$175,000
5.	Interior Reservoir Prep and Recoating	1	LS	\$ 210,000	\$210,000
6	Removal of Mill Scale	5,000	SF	\$ 3	\$15,000
7	Stair Security and Intrusion Switches	1	LS	\$ 15,000	\$ 15,000
8	Seismic Vault and Flexible Connections	1	TN	\$ 80,000	\$ 80,000
9	General Restoration	1	LS	\$ 20,000	\$ 20,000
Subtotal.....					\$ 576,000
Tax rate (8.9%).....					<u>51,264</u>
Subtotal:.....					\$ 627,264
Contingency (20%).....					<u>\$ 125,736</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....					\$ 753,000
Engineering and Administrative Costs (30%):.....					<u>\$ 225,900</u>
TOTAL ESTIMATED PROJECT COST:.....					<u><u>\$ 979,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)					

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
STORAGE IMPROVEMENT ST-3
New Reservoir at I-90 Site**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 106,000	\$ 106,000
2	12-inch DI Water Pipe, Including Fittings	200 LF	\$ 150	\$ 30,000
3	Locate Existing Utilities	LUMP SUM	\$ 31,000	\$ 31,000
4	Erosion Control	LUMP SUM	\$ 31,000	\$ 31,000
5	Additional Pipe Fittings	100 LB	\$ 7.00	\$ 700
6	Trench Safety Systems	LUMP SUM	\$ 1,000	\$ 1,000
7	12-inch Gate Valves	2 EA	\$ 3,000	\$ 6,000
8	0.5 MG Reservoir	1 LS	\$ 1,200,000	\$ 1,200,000
9	General Restoration	1 LS	\$20,000	\$ 20,000
Subtotal.....				\$ 1,425,700
Tax rate (8.9%).....				<u>126,887</u>
Subtotal:.....				\$ 1,552,587
Contingency (20%).....				<u>\$ 310,413</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 1,863,000
Engineering and Administrative Costs (30%):.....				<u>\$ 558,900</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 2,422,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
SOURCE IMPROVEMENT SO-1
Centennial Well Variable Frequency Drive**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 4,000	\$ 4,000
2	Variable Frequency Drive Installation	LUMP SUM	\$ 50,000	\$ 50,000
	Subtotal.....			\$ 54,000
	Tax rate (8.9%).....			<u>4,806</u>
	Subtotal:.....			\$ 58,806
	Contingency (20%).....			<u>\$ 12,194</u>
	TOTAL ESTIMATED CONSTRUCTION COST:.....			\$ 71,000

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
SOURCE IMPROVEMENT SO-2
Centennial Well Pump Replacement**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 10,000	\$ 10,000
2	Replacement Well Pump	LUMP SUM	\$ 125,000	\$ 125,000
	Subtotal.....			\$ 135,000
	Tax rate (8.9%).....			<u>12,015</u>
	Subtotal:.....			\$ 147,015
	Contingency (20%).....			<u>\$ 28,985</u>
	TOTAL ESTIMATED CONSTRUCTION COST:.....			\$ 176,000
	Engineering and Administrative Costs (30%):.....			<u>\$ 52,800</u>
	TOTAL ESTIMATED PROJECT COST:.....			<u>\$ 229,000</u>
	ENR Construction Cost Index = 12,117 (Feb 2020)			

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
MITIGATION SYSTEM IMPROVEMENT MT-1
Golf Course Well Improvements**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 16,000	\$ 16,000
2	6-inch DI Water Pipe, Including Fittings	1,400 LF	\$ 70	\$ 98,000
3	Locate Existing Utilities	LUMP SUM	\$ 5,000	\$ 5,000
4	Erosion Control	LUMP SUM	\$ 5,000	\$ 5,000
5	Additional Pipe Fittings	168 LB	\$ 7.00	\$ 1,176
6	Trench Safety Systems	LUMP SUM	\$ 7,000	\$ 7,000
7	6-inch Gate Valves	8 EA	\$ 1,200	\$ 9,600
8	Gravel Backfill	460 TN	\$ 35	\$ 16,100
9	Replacement Pump	1 LS	\$ 40,000	\$ 40,000
10	General Restoration	1 LS	\$20,000	\$ 20,000
Subtotal.....				\$ 217,876
Tax rate (8.9%).....				<u>19,391</u>
Subtotal:.....				\$ 237,267
Contingency (20%).....				<u>\$ 47,733</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 285,000
Engineering and Administrative Costs (30%):.....				<u>\$ 85,500</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 371,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
MITIGATION SYSTEM IMPROVEMENT MT-2
Hobo Springs Improvement**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 13,000	\$ 13,000
2	Hobo Springs Intake Improvements	1 LF	\$ 75,000	\$ 75,000
3	16-inch DI Water Pipe, Including Fittings	300 LF	\$ 180	\$ 54,000
4	Erosion Control	LUMP SUM	\$ 3,000	\$ 3,000
5	Additional Pipe Fittings	180 LB	\$ 7.00	\$ 1,260
6	Trench Safety Systems	LUMP SUM	\$ 1,500	\$ 1,500
7	16-inch Butterfly Valves	2 EA	\$ 10,000	\$ 20,000
8	General Restoration	1 LS	\$10,000	\$ 10,000
Subtotal.....				\$ 177,760
Tax rate (8.9%).....				<u>15,821</u>
Subtotal:.....				\$ 193,581
Contingency (20%).....				<u>\$ 38,419</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 232,000
Engineering and Administrative Costs (30%):.....				<u>\$ 69,600</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 302,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
MITIGATION SYSTEM IMPROVEMENT MT-3
Mitigation Well**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 45,000	\$ 45,000
2	12-inch DI Water Pipe, Including Fittings	300 LF	\$ 150	\$ 45,000
3	Locate Existing Utilities	LUMP SUM	\$ 13,000	\$ 13,000
4	Erosion Control	LUMP SUM	\$ 13,000	\$ 13,000
5	Additional Pipe Fittings	150 LB	\$ 7.00	\$ 1,050
6	Trench Safety Systems	LUMP SUM	\$ 1,500	\$ 1,500
7	12-inch Gate Valves	2 EA	\$ 3,000	\$ 6,000
8	Submersible Well Pump Assembly	1 LS	\$ 100,000	\$ 100,000
9	Well Building	1 LS	\$ 200,000	\$ 200,000
10	Electrical and Telemetry	1 LS	\$ 160,000	\$ 160,000
11	General Restoration	1 LS	\$20,000	\$ 20,000
Subtotal.....				\$ 604,550
Tax rate (8.9%).....				<u>53,805</u>
Subtotal:.....				\$ 658,355
Contingency (20%).....				<u>\$ 131,645</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 790,000
Engineering and Administrative Costs (30%):.....				<u>\$ 237,000</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 1,027,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
MITIGATION SYSTEM IMPROVEMENT MT-4
Sallal Mitigation Intertie**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 14,000	\$ 14,000
2	12-inch DI Water Pipe, Including Fittings	400 LF	\$ 150	\$ 60,000
3	Locate Existing Utilities	LUMP SUM	\$ 4,000	\$ 4,000
4	Erosion Control	LUMP SUM	\$ 4,000	\$ 4,000
5	Additional Pipe Fittings	200 LB	\$ 7.00	\$ 1,400
6	Trench Safety Systems	LUMP SUM	\$ 2,000	\$ 2,000
7	12-inch Gate Valves	2 EA	\$ 3,000	\$ 6,000
8	Crushed Surfacing, Top Course	410 TN	\$ 30	\$ 12,300
9	General Restoration	1 LS	\$20,000	\$ 20,000
10	Electrical and SCADA	1 LS	\$ 50,000	\$ 50,000
11	HMA Cl. 1/2 PG 58-22	50 TN	\$ 200	\$ 10,000
Subtotal.....				\$ 183,700
Tax rate (8.9%).....				<u>16,349</u>
Subtotal:.....				\$ 200,049
Contingency (20%).....				<u>\$ 39,951</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 240,000
Engineering and Administrative Costs (30%):.....				<u>\$ 72,000</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 312,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
MITIGATION SYSTEM IMPROVEMENT MT-5
Mitigation Reservoir**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 539,000	\$ 539,000
2	12-inch DI Water Pipe, Including Fittings	1,000 LF	\$ 150	\$ 150,000
3	Locate Existing Utilities	LUMP SUM	\$ 6,000	\$ 6,000
4	Erosion Control	LUMP SUM	\$ 6,000	\$ 6,000
5	Additional Pipe Fittings	500 LB	\$ 7.00	\$ 3,500
6	Trench Safety Systems	LUMP SUM	\$ 5,000	\$ 5,000
7	12-inch Gate Valves	6 EA	\$ 3,000	\$ 18,000
8	10 MG Reservoir	1 LS	\$ 8,500,000	\$ 6,500,000
9	Crushed Surfacing, Top Course	1,030 TN	\$ 30	\$ 30,900
10	General Restoration	1 LS	\$20,000	\$ 20,000
Subtotal.....				\$ 7,278,400
Tax rate (8.9%).....				<u>647,778</u>
Subtotal:.....				\$ 7,926,178
Contingency (20%).....				<u>\$ 1,584,822</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 9,511,000
Engineering and Administrative Costs (30%):.....				<u>\$ 2,853,300</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 12,000,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
SOURCE IMPROVEMENT MS-2
Source and Storage SCADA and PLC Upgrades**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Reservoir SCADA and PLC Upgrades	3 EA	\$ 25,000	\$ 75,000
2	Source SCADA and PLC Upgrades	2 EA	\$ 15,000	\$ 30,000
	Subtotal.....			\$ 105,000
	Tax rate (8.9%).....			<u>9,345</u>
	Subtotal:.....			\$ 114,345
	Contingency (20%).....			<u>\$ 22,655</u>
	TOTAL ESTIMATED CONSTRUCTION COST:.....			\$ 137,000
	Engineering and Administrative Costs (30%):.....			<u>\$ 41,100</u>
	TOTAL ESTIMATED PROJECT COST:.....			<u><u>\$ 178,000</u></u>
	ENR Construction Cost Index = 12,117 (Feb 2020)			

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
SOURCE IMPROVEMENT MS-2
Source and Storage SCADA and PLC Upgrades**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Booster Pump Station SCADA and PLC Upgrades	2 EA	\$ 15,000	\$ 30,000
	Subtotal.....			\$ 30,000
	Tax rate (8.9%).....			<u>2,670</u>
	Subtotal:.....			\$ 32,670
	Contingency (20%).....			<u>\$ 6,330</u>
	TOTAL ESTIMATED CONSTRUCTION COST:.....			\$ 39,000
	Engineering and Administrative Costs (30%):.....			<u>\$ 11,700</u>
	TOTAL ESTIMATED PROJECT COST:.....			<u>\$ 51,000</u>
	ENR Construction Cost Index = 12,117 (Feb 2020)			

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-1
Main Avenue North and West 4th Ave**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 4,000	\$ 4,000
2	8-inch DI Water Pipe, Including Fittings	100 LF	\$ 85	\$ 8,500
3	Locate Existing Utilities	LUMP SUM	\$ 1,000	\$ 1,000
4	Erosion Control	LUMP SUM	\$ 1,000	\$ 1,000
5	Additional Pipe Fittings	45 LB	\$ 7.00	\$ 315
6	Trench Safety Systems	LUMP SUM	\$ 1,000	\$ 1,000
7	8-inch Gate Valves	2 EA	\$ 1,500	\$ 3,000
8	Fire Hydrants	1 EA	\$ 5,500	\$ 5,500
9	Crushed Surfacing, Top Course	90 TN	\$ 30	\$ 2,700
10	Foundation Gravel	10 TN	\$ 35	\$ 350
11	HMA Cl. 1/2 PG 58-22	10 TN	\$ 200	\$ 2,000
12	Sawcutting	200 LF	\$ 4	\$ 800
13	Cold Mix Asphalt	5 TN	\$ 170	\$ 779
14	Connections to Existing System	3 EA	\$ 6,000	\$ 18,000
16	Traffic Control	4 HRS	\$ 100	\$ 400
Subtotal.....				\$ 49,344
Tax rate (8.9%).....				<u>4,392</u>
Subtotal:.....				\$ 53,736
Contingency (20%).....				<u>10,264</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 64,000
Engineering and Administrative Costs (30%):.....				<u>19,200</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 83,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-2
North Bend Way and West 2nd Ave**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 10,000	\$ 10,000
2	10-inch DI Water Pipe, Including Fittings	400 LF	\$ 100	\$ 40,000
3	Locate Existing Utilities	LUMP SUM	\$ 3,000	\$ 3,000
4	Erosion Control	LUMP SUM	\$ 3,000	\$ 3,000
5	Additional Pipe Fittings	200 LB	\$ 7.00	\$ 1,400
6	Trench Safety Systems	LUMP SUM	\$ 2,000	\$ 2,000
7	10-inch Gate Valves	2 EA	\$ 2,200	\$ 4,400
8	Fire Hydrants	2 EA	\$ 5,500	\$ 11,000
9	Crushed Surfacing, Top Course	410 TN	\$ 30	\$ 12,300
10	Foundation Gravel	30 TN	\$ 35	\$ 1,050
11	HMA Cl. 1/2 PG 58-22	50 TN	\$ 200	\$ 10,000
12	Sawcutting	800 LF	\$ 4	\$ 3,200
13	Cold Mix Asphalt	20 TN	\$ 170	\$ 3,400
14	Connections to Existing System	4 EA	\$ 6,000	\$ 24,000
15	1-1/2" Service Connections, complete	5 EA	\$ 2,000	\$ 10,000
16	Traffic Control	16 HRS	\$ 100	\$ 1,600
Subtotal.....				\$ 140,350
Tax rate (8.9%).....				<u>12,491</u>
Subtotal:.....				\$ 152,841
Contingency (20%).....				<u>\$ 30,159</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 183,000
Engineering and Administrative Costs (30%):.....				<u>\$ 54,900</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 238,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-3
Main Avenue North and Sydney Avenue North**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 12,000	\$ 12,000
2	12-inch DI Water Pipe, Including Fittings	400 LF	\$ 150	\$ 60,000
3	Locate Existing Utilities	LUMP SUM	\$ 3,000	\$ 3,000
4	Erosion Control	LUMP SUM	\$ 3,000	\$ 3,000
5	Additional Pipe Fittings	200 LB	\$ 7.00	\$ 1,400
6	Trench Safety Systems	LUMP SUM	\$ 2,000	\$ 2,000
7	12-inch Gate Valves	2 EA	\$ 3,000	\$ 6,000
8	Fire Hydrants	2 EA	\$ 5,500	\$ 11,000
9	Crushed Surfacing, Top Course	410 TN	\$ 30	\$ 12,300
10	Foundation Gravel	30 TN	\$ 35	\$ 1,050
11	HMA Cl. 1/2 PG 58-22	50 TN	\$ 200	\$ 10,000
12	Sawcutting	800 LF	\$ 4	\$ 3,200
13	Cold Mix Asphalt	20 TN	\$ 170	\$ 3,400
14	Connections to Existing System	3 EA	\$ 6,000	\$ 18,000
15	1-1/2" Service Connections, complete	5 EA	\$ 2,000	\$ 10,000
16	Traffic Control	16 HRS	\$ 100	\$ 1,600
Subtotal.....				\$ 157,950
Tax rate (8.9%).....				<u>14,058</u>
Subtotal:.....				\$ 172,008
Contingency (20%).....				<u>\$ 33,992</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 206,000
Engineering and Administrative Costs (30%):.....				<u>\$ 61,800</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 268,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-4
East North Bend Way and Thrasher Ave Northeast**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 14,000	\$ 14,000
2	8-inch DI Water Pipe, Including Fittings	800 LF	\$ 85	\$ 68,000
3	Locate Existing Utilities	LUMP SUM	\$ 4,000	\$ 4,000
4	Erosion Control	LUMP SUM	\$ 4,000	\$ 4,000
5	Additional Pipe Fittings	400 LB	\$ 7.00	\$ 2,800
6	Trench Safety Systems	LUMP SUM	\$ 4,000	\$ 4,000
7	8-inch Gate Valves	4 EA	\$ 1,500	\$ 6,000
8	Fire Hydrants	3 EA	\$ 5,500	\$ 16,500
9	Crushed Surfacing, Top Course	700 TN	\$ 30	\$ 21,000
10	Foundation Gravel	40 TN	\$ 35	\$ 1,400
11	HMA Cl. 1/2 PG 58-22	100 TN	\$ 200	\$ 20,000
12	Sawcutting	1,600 LF	\$ 4	\$ 6,400
13	Cold Mix Asphalt	40 TN	\$ 170	\$ 6,800
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	3/4" Service Connections, complete	5 EA	\$ 1,000	\$ 5,000
16	Traffic Control	32 HRS	\$ 100	\$ 3,200
Subtotal.....				\$ 195,100
Tax rate (8.9%).....				<u>17,364</u>
Subtotal:.....				\$ 212,464
Contingency (20%).....				<u>\$ 42,536</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 255,000
Engineering and Administrative Costs (30%):.....				<u>\$ 76,500</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 332,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-5
Riverside Drive**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 36,000	\$ 36,000
2	8-inch DI Water Pipe, Including Fittings	2,000 LF	\$ 85	\$ 170,000
3	Locate Existing Utilities	LUMP SUM	\$ 11,000	\$ 11,000
4	Erosion Control	LUMP SUM	\$ 11,000	\$ 11,000
5	Additional Pipe Fittings	900 LB	\$ 7.00	\$ 6,300
6	Trench Safety Systems	LUMP SUM	\$ 10,000	\$ 10,000
7	8-inch Gate Valves	12 EA	\$ 1,500	\$ 18,000
8	Fire Hydrants	6 EA	\$ 5,500	\$ 33,000
9	Crushed Surfacing, Top Course	1,760 TN	\$ 30	\$ 52,800
10	Foundation Gravel	110 TN	\$ 35	\$ 3,850
11	HMA Cl. 1/2 PG 58-22	240 TN	\$ 200	\$ 48,000
12	Sawcutting	4,000 LF	\$ 4	\$ 16,000
13	Cold Mix Asphalt	90 TN	\$ 170	\$ 15,300
14	Connections to Existing System	3 EA	\$ 6,000	\$ 18,000
15	3/4" Service Connections, complete	30 EA	\$ 1,000	\$ 30,000
16	Traffic Control	80 HRS	\$ 100	\$ 8,000
Subtotal.....				\$ 487,250
Tax rate (8.9%).....				<u>43,365</u>
Subtotal:.....				\$ 530,615
Contingency (20%).....				<u>\$ 106,385</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 637,000
Engineering and Administrative Costs (30%):.....				<u>\$ 191,100</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 828,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-6
End of East 2nd Street**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 9,000	\$ 9,000
2	16-inch DI Water Pipe, Including Fittings	200 LF	\$ 180	\$ 36,000
3	Locate Existing Utilities	LUMP SUM	\$ 3,000	\$ 3,000
4	Erosion Control	LUMP SUM	\$ 3,000	\$ 3,000
5	Additional Pipe Fittings	100 LB	\$ 7.00	\$ 700
6	Trench Safety Systems	LUMP SUM	\$ 1,000	\$ 1,000
7	16-inch Butterfly Valves	2 EA	\$ 10,000	\$ 20,000
8	Fire Hydrants	1 EA	\$ 5,500	\$ 5,500
9	Crushed Surfacing, Top Course	240 TN	\$ 30	\$ 7,200
10	Foundation Gravel	10 TN	\$ 35	\$ 350
11	HMA Cl. 1/2 PG 58-22	30 TN	\$ 200	\$ 6,000
12	Sawcutting	400 LF	\$ 4	\$ 1,600
13	Cold Mix Asphalt	10 TN	\$ 170	\$ 1,700
14	Connections to Existing System	4 EA	\$ 6,000	\$ 24,000
15	Traffic Control	8 HRS	\$ 100	\$ 800
Subtotal.....				\$ 119,850
Tax rate (8.9%).....				<u>10,667</u>
Subtotal:.....				\$ 130,517
Contingency (20%).....				<u>\$ 26,483</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 157,000
Engineering and Administrative Costs (30%):.....				<u>\$ 47,100</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 204,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-7
SE 123rd Street & 415th Avenue**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 16,000	\$ 16,000
2	8-inch DI Water Pipe, Including Fittings	750 LF	\$ 85	\$ 63,750
3	Locate Existing Utilities	LUMP SUM	\$ 5,000	\$ 5,000
4	Erosion Control	LUMP SUM	\$ 5,000	\$ 5,000
5	Additional Pipe Fittings	300 LB	\$ 7.00	\$ 2,100
6	Trench Safety Systems	LUMP SUM	\$ 3,800	\$ 3,800
7	8-inch Gate Valves	4 EA	\$ 1,500	\$ 6,000
8	Fire Hydrants	2 EA	\$ 5,500	\$ 11,000
9	Crushed Surfacing, Top Course	660 TN	\$ 30	\$ 19,800
10	Foundation Gravel	40 TN	\$ 35	\$ 1,400
11	HMA Cl. 1/2 PG 58-22	90 TN	\$ 200	\$ 18,000
12	Sawcutting	1,500 LF	\$ 4	\$ 6,000
13	Cold Mix Asphalt	30 TN	\$ 170	\$ 5,100
14	Connections to Existing System	5 EA	\$ 6,000	\$ 30,000
15	3/4" Service Connections, complete	15 EA	\$ 1,000	\$ 15,000
16	Traffic Control	32 HRS	\$ 100	\$ 3,200
Subtotal.....				\$ 211,150
Tax rate (8.9%).....				<u>18,792</u>
Subtotal:.....				\$ 229,942
Contingency (20%).....				<u>\$ 46,058</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 276,000
Engineering and Administrative Costs (30%):.....				<u>\$ 82,800</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 359,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-8
SE 136th Street & 424th Avenue SE**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 6,000	\$ 6,000
2	8-inch DI Water Pipe, Including Fittings	300 LF	\$ 85	\$ 25,500
3	Locate Existing Utilities	LUMP SUM	\$ 2,000	\$ 2,000
4	Erosion Control	LUMP SUM	\$ 2,000	\$ 2,000
5	Additional Pipe Fittings	100 LB	\$ 7.00	\$ 700
6	Trench Safety Systems	LUMP SUM	\$ 1,500	\$ 1,500
7	8-inch Gate Valves	2 EA	\$ 1,500	\$ 3,000
8	Fire Hydrants	1 EA	\$ 5,500	\$ 5,500
9	Crushed Surfacing, Top Course	260 TN	\$ 30	\$ 7,800
10	Foundation Gravel	20 TN	\$ 35	\$ 700
11	HMA Cl. 1/2 PG 58-22	40 TN	\$ 200	\$ 8,000
12	Sawcutting	600 LF	\$ 4	\$ 2,400
13	Cold Mix Asphalt	10 TN	\$ 170	\$ 1,700
14	Connections to Existing System	3 EA	\$ 6,000	\$ 18,000
15	Traffic Control	12 HRS	\$ 100	\$ 1,200
Subtotal.....				\$ 86,000
Tax rate (8.9%).....				<u>7,654</u>
Subtotal:.....				\$ 93,654
Contingency (20%).....				<u>18,346</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 112,000
Engineering and Administrative Costs (30%):.....				<u>33,600</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 146,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-9
End of SE 108th Street**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 13,000	\$ 13,000
2	8-inch DI Water Pipe, Including Fittings	750 LF	\$ 85	\$ 63,750
3	Locate Existing Utilities	LUMP SUM	\$ 4,000	\$ 4,000
4	Erosion Control	LUMP SUM	\$ 4,000	\$ 4,000
5	Additional Pipe Fittings	300 LB	\$ 7.00	\$ 2,100
6	Trench Safety Systems	LUMP SUM	\$ 3,800	\$ 3,800
7	8-inch Gate Valves	4 EA	\$ 1,500	\$ 6,000
8	Fire Hydrants	2 EA	\$ 5,500	\$ 11,000
9	Crushed Surfacing, Top Course	660 TN	\$ 30	\$ 19,800
10	Foundation Gravel	40 TN	\$ 35	\$ 1,400
11	HMA Cl. 1/2 PG 58-22	90 TN	\$ 200	\$ 18,000
12	Sawcutting	1,500 LF	\$ 4	\$ 6,000
13	Cold Mix Asphalt	30 TN	\$ 170	\$ 5,100
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	3/4" Service Connections, complete	4 EA	\$ 1,000	\$ 4,000
16	Traffic Control	32 HRS	\$ 100	\$ 3,200
Subtotal.....				\$ 177,150
Tax rate (8.9%).....				<u>15,766</u>
Subtotal:.....				\$ 192,916
Contingency (20%).....				<u>\$ 38,084</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 231,000
Engineering and Administrative Costs (30%):.....				<u>\$ 69,300</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 300,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-10
Borst Avenue Northeast and Northeast 9th Street**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 8,000	\$ 8,000
2	8-inch DI Water Pipe, Including Fittings	350 LF	\$ 85	\$ 29,750
3	Locate Existing Utilities	LUMP SUM	\$ 2,000	\$ 2,000
4	Erosion Control	LUMP SUM	\$ 2,000	\$ 2,000
5	Additional Pipe Fittings	200 LB	\$ 7.00	\$ 1,400
6	Trench Safety Systems	LUMP SUM	\$ 1,800	\$ 1,800
7	8-inch Gate Valves	2 EA	\$ 1,500	\$ 3,000
8	Fire Hydrants	1 EA	\$ 5,500	\$ 5,500
9	Crushed Surfacing, Top Course	310 TN	\$ 30	\$ 9,300
10	Foundation Gravel	20 TN	\$ 35	\$ 700
11	HMA Cl. 1/2 PG 58-22	40 TN	\$ 200	\$ 8,000
12	Sawcutting	700 LF	\$ 4	\$ 2,800
13	Cold Mix Asphalt	20 TN	\$ 170	\$ 3,400
14	Connections to Existing System	3 EA	\$ 6,000	\$ 18,000
15	3/4" Service Connections, complete	6 EA	\$ 1,000	\$ 6,000
16	Traffic Control	16 HRS	\$ 100	\$ 1,600
Subtotal.....				\$ 103,250
Tax rate (8.9%).....				9,189
Subtotal:.....				\$ 112,439
Contingency (20%).....				\$ 22,561
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 135,000
Engineering and Administrative Costs (30%):.....				\$ 40,500
TOTAL ESTIMATED PROJECT COST:.....				\$ 176,000
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-11
Borst Avenue Northeast and Northeast 6th Street**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 7,000	\$ 7,000
2	8-inch DI Water Pipe, Including Fittings	350 LF	\$ 85	\$ 29,750
3	Locate Existing Utilities	LUMP SUM	\$ 2,000	\$ 2,000
4	Erosion Control	LUMP SUM	\$ 2,000	\$ 2,000
5	Additional Pipe Fittings	200 LB	\$ 7.00	\$ 1,400
6	Trench Safety Systems	LUMP SUM	\$ 1,800	\$ 1,800
7	8-inch Gate Valves	2 EA	\$ 1,500	\$ 3,000
8	Fire Hydrants	1 EA	\$ 5,500	\$ 5,500
9	Crushed Surfacing, Top Course	310 TN	\$ 30	\$ 9,300
10	Foundation Gravel	20 TN	\$ 35	\$ 700
11	HMA Cl. 1/2 PG 58-22	40 TN	\$ 200	\$ 8,000
12	Sawcutting	700 LF	\$ 4	\$ 2,800
13	Cold Mix Asphalt	20 TN	\$ 170	\$ 3,400
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	3/4" Service Connections, complete	9 EA	\$ 1,000	\$ 9,000
16	Traffic Control	16 HRS	\$ 100	\$ 1,600
Subtotal.....				\$ 99,250
Tax rate (8.9%).....				8,833
Subtotal:.....				\$ 108,083
Contingency (20%).....				\$ 21,917
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 130,000
Engineering and Administrative Costs (30%):.....				\$ 39,000
TOTAL ESTIMATED PROJECT COST:.....				\$ 169,000
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-12
Thrasher Avenue NE**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 5,000	\$ 5,000
2	8-inch DI Water Pipe, Including Fittings	200 LF	\$ 85	\$ 17,000
3	Locate Existing Utilities	LUMP SUM	\$ 1,000	\$ 1,000
4	Erosion Control	LUMP SUM	\$ 1,000	\$ 1,000
5	Additional Pipe Fittings	100 LB	\$ 7.00	\$ 700
6	Trench Safety Systems	LUMP SUM	\$ 1,000	\$ 1,000
7	8-inch Gate Valves	2 EA	\$ 1,500	\$ 3,000
8	Fire Hydrants	1 EA	\$ 5,500	\$ 5,500
9	Crushed Surfacing, Top Course	180 TN	\$ 30	\$ 5,400
10	Foundation Gravel	10 TN	\$ 35	\$ 350
11	HMA Cl. 1/2 PG 58-22	20 TN	\$ 200	\$ 4,000
12	Sawcutting	400 LF	\$ 4	\$ 1,600
13	Cold Mix Asphalt	10 TN	\$ 170	\$ 1,700
14	Connections to Existing System	3 EA	\$ 6,000	\$ 18,000
15	Traffic Control	8 HRS	\$ 100	\$ 800
Subtotal.....				\$ 66,050
Tax rate (8.9%).....				<u>5,878</u>
Subtotal:.....				\$ 71,928
Contingency (20%).....				<u>14,072</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 86,000
Engineering and Administrative Costs (30%):.....				<u>25,800</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 112,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-13
Picket Avenue Northeast**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 13,000	\$ 13,000
2	8-inch DI Water Pipe, Including Fittings	600 LF	\$ 85	\$ 51,000
3	Locate Existing Utilities	LUMP SUM	\$ 4,000	\$ 4,000
4	Erosion Control	LUMP SUM	\$ 4,000	\$ 4,000
5	Additional Pipe Fittings	300 LB	\$ 7.00	\$ 2,100
6	Trench Safety Systems	LUMP SUM	\$ 3,000	\$ 3,000
7	8-inch Gate Valves	4 EA	\$ 1,500	\$ 6,000
8	Fire Hydrants	2 EA	\$ 5,500	\$ 11,000
9	Crushed Surfacing, Top Course	530 TN	\$ 30	\$ 15,900
10	Foundation Gravel	30 TN	\$ 35	\$ 1,050
11	HMA Cl. 1/2 PG 58-22	70 TN	\$ 200	\$ 14,000
12	Sawcutting	1,200 LF	\$ 4	\$ 4,800
13	Cold Mix Asphalt	30 TN	\$ 170	\$ 5,100
14	Connections to Existing System	4 EA	\$ 6,000	\$ 24,000
15	3/4" Service Connections, complete	9 EA	\$ 1,000	\$ 9,000
16	Traffic Control	24 HRS	\$ 100	\$ 2,400
Subtotal.....				\$ 170,350
Tax rate (8.9%).....				<u>15,161</u>
Subtotal:.....				\$ 185,511
Contingency (20%).....				<u>\$ 37,489</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 223,000
Engineering and Administrative Costs (30%):.....				<u>\$ 66,900</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 290,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-14
Taylor Place NE , Boxley Place NE, and NE 5th Street

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 13,000	\$ 13,000
2	8-inch DI Water Pipe, Including Fittings	600 LF	\$ 85	\$ 51,000
3	Locate Existing Utilities	LUMP SUM	\$ 4,000	\$ 4,000
4	Erosion Control	LUMP SUM	\$ 4,000	\$ 4,000
5	Additional Pipe Fittings	300 LB	\$ 7.00	\$ 2,100
6	Trench Safety Systems	LUMP SUM	\$ 3,000	\$ 3,000
7	8-inch Gate Valves	4 EA	\$ 1,500	\$ 6,000
8	Fire Hydrants	2 EA	\$ 5,500	\$ 11,000
9	Crushed Surfacing, Top Course	530 TN	\$ 30	\$ 15,900
10	Foundation Gravel	30 TN	\$ 35	\$ 1,050
11	HMA Cl. 1/2 PG 58-22	70 TN	\$ 200	\$ 14,000
12	Sawcutting	1,200 LF	\$ 4	\$ 4,800
13	Cold Mix Asphalt	30 TN	\$ 170	\$ 5,100
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	3/4" Service Connections, complete	22 EA	\$ 1,000	\$ 22,000
16	Traffic Control	24 HRS	\$ 100	\$ 2,400
Subtotal.....				\$ 171,350
Tax rate (8.9%).....				<u>15,250</u>
Subtotal:.....				\$ 186,600
Contingency (20%).....				<u>\$ 37,400</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 224,000
Engineering and Administrative Costs (30%):.....				<u>\$ 67,200</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 291,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-15
Merritt Avenue NE**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 10,000	\$ 10,000
2	8-inch DI Water Pipe, Including Fittings	500 LF	\$ 85	\$ 42,500
3	Locate Existing Utilities	LUMP SUM	\$ 3,000	\$ 3,000
4	Erosion Control	LUMP SUM	\$ 3,000	\$ 3,000
5	Additional Pipe Fittings	200 LB	\$ 7.00	\$ 1,400
6	Trench Safety Systems	LUMP SUM	\$ 2,500	\$ 2,500
7	8-inch Gate Valves	2 EA	\$ 1,500	\$ 3,000
8	Fire Hydrants	2 EA	\$ 5,500	\$ 11,000
9	Crushed Surfacing, Top Course	440 TN	\$ 30	\$ 13,200
10	Foundation Gravel	30 TN	\$ 35	\$ 1,050
11	HMA Cl. 1/2 PG 58-22	60 TN	\$ 200	\$ 12,000
12	Sawcutting	1,000 LF	\$ 4	\$ 4,000
13	Cold Mix Asphalt	20 TN	\$ 170	\$ 3,400
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	3/4" Service Connections, complete	11 EA	\$ 1,000	\$ 11,000
16	Traffic Control	20 HRS	\$ 100	\$ 2,000
Subtotal.....				\$ 135,050
Tax rate (8.9%).....				<u>12,019</u>
Subtotal:.....				\$ 147,069
Contingency (20%).....				<u>\$ 28,931</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 176,000
Engineering and Administrative Costs (30%):.....				<u>\$ 52,800</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 229,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-16
436th Avenue NE**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 34,000	\$ 34,000
2	12-inch DI Water Pipe, Including Fittings	1,400 LF	\$ 150	\$ 210,000
3	Locate Existing Utilities	LUMP SUM	\$ 10,000	\$ 10,000
4	Erosion Control	LUMP SUM	\$ 10,000	\$ 10,000
5	Additional Pipe Fittings	700 LB	\$ 7.00	\$ 4,900
6	Trench Safety Systems	LUMP SUM	\$ 7,000	\$ 7,000
7	12-inch Gate Valves	8 EA	\$ 3,000	\$ 24,000
8	Fire Hydrants	4 EA	\$ 5,500	\$ 22,000
9	Crushed Surfacing, Top Course	1,440 TN	\$ 30	\$ 43,200
10	Foundation Gravel	90 TN	\$ 35	\$ 3,150
11	HMA Cl. 1/2 PG 58-22	190 TN	\$ 200	\$ 38,000
12	Sawcutting	2,800 LF	\$ 4	\$ 11,200
13	Cold Mix Asphalt	60 TN	\$ 170	\$ 10,200
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	3/4" Service Connections, complete	8 EA	\$ 1,000	\$ 8,000
16	Traffic Control	56 HRS	\$ 100	\$ 5,600
Subtotal.....				\$ 453,250
Tax rate (8.9%).....				<u>40,339</u>
Subtotal:.....				\$ 493,589
Contingency (20%).....				<u>\$ 98,411</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 592,000
Engineering and Administrative Costs (30%):.....				<u>\$ 177,600</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 770,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-17
Mt. Si Business Park Fireflow Improvements**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 49,000	\$ 49,000
2	16-inch DI Water Pipe, Including Fittings	1,750 LF	\$ 180	\$ 315,000
3	Locate Existing Utilities	LUMP SUM	\$ 15,000	\$ 15,000
4	Erosion Control	LUMP SUM	\$ 15,000	\$ 15,000
5	Additional Pipe Fittings	1,100 LB	\$ 7.00	\$ 7,700
6	Trench Safety Systems	LUMP SUM	\$ 8,800	\$ 8,800
7	16-inch Butterfly Valves	4 EA	\$ 10,000	\$ 40,000
8	Fire Hydrants	5 EA	\$ 5,500	\$ 27,500
9	Crushed Surfacing, Top Course	2,050 TN	\$ 30	\$ 61,500
10	Foundation Gravel	130 TN	\$ 35	\$ 4,550
11	HMA Cl. 1/2 PG 58-22	260 TN	\$ 200	\$ 52,000
12	Sawcutting	3,500 LF	\$ 4	\$ 14,000
13	Cold Mix Asphalt	80 TN	\$ 170	\$ 13,600
14	Connections to Existing System	5 EA	\$ 6,000	\$ 30,000
15	1-1/2" Service Connections, complete	3 EA	\$ 2,000	\$ 6,000
16	Traffic Control	72 HRS	\$ 100	\$ 7,200
Subtotal.....				\$ 666,850
Tax rate (8.9%).....				<u>59,350</u>
Subtotal:.....				\$ 726,200
Contingency (20%).....				<u>\$ 144,800</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 871,000
Engineering and Administrative Costs (30%):.....				<u>\$ 261,300</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 1,132,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-18
Middle Fork River Crossing**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 19,000	\$ 19,000
2	16-inch HDPE Water Pipe, HDD	500 LF	\$ 350	\$ 175,000
3	12-inch DI Water Pipe, Including Fittings	100 LF	\$ 150	\$ 15,000
4	Locate Existing Utilities	LUMP SUM	\$ 5,000	\$ 5,000
5	Erosion Control	LUMP SUM	\$ 5,000	\$ 5,000
6	Additional Pipe Fittings	300 LB	\$ 7.00	\$ 2,100
7	Trench Safety Systems	LUMP SUM	\$ 2,500	\$ 2,500
8	12-inch Gate Valves	2 EA	\$ 3,000	\$ 6,000
9	Crushed Surfacing, Top Course	510 TN	\$ 30	\$ 15,300
10	Foundation Gravel	30 TN	\$ 35	\$ 1,050
11	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
14	Traffic Control	20 HRS	\$ 100	\$ 2,000
Subtotal.....				\$ 259,950
Tax rate (8.9%).....				<u>23,136</u>
Subtotal:.....				\$ 283,086
Contingency (20%).....				<u>\$ 56,914</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 340,000
Engineering and Administrative Costs (30%):.....				<u>\$ 102,000</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 442,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-19
South Fork River Crossing**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 23,000	\$ 23,000
2	16-inch HDPE Water Pipe, HDD	600 LF	\$ 350	\$ 210,000
3	12-inch DI Water Pipe, Including Fittings	100 LF	\$ 150	\$ 15,000
4	Locate Existing Utilities	LUMP SUM	\$ 7,000	\$ 7,000
5	Erosion Control	LUMP SUM	\$ 7,000	\$ 7,000
6	Additional Pipe Fittings	300 LB	\$ 7.00	\$ 2,100
7	Trench Safety Systems	LUMP SUM	\$ 3,000	\$ 3,000
8	12-inch Gate Valves	4 EA	\$ 3,000	\$ 12,000
9	Crushed Surfacing, Top Course	620 TN	\$ 30	\$ 18,600
10	Foundation Gravel	40 TN	\$ 35	\$ 1,400
11	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
12	Traffic Control	24.0 HRS	\$ 100	\$ 2,400
Subtotal.....				\$ 313,500
Tax rate (8.9%).....				<u>27,902</u>
Subtotal:.....				\$ 341,402
Contingency (20%).....				<u>\$ 68,599</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 410,000
Engineering and Administrative Costs (30%):.....				<u>\$ 123,000</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 533,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-20
Avenue Southeast to River Crossing**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 141,000	\$ 141,000
2	16-inch DI Water Pipe, Including Fittings	5,000 LF	\$ 180	\$ 900,000
3	Locate Existing Utilities	LUMP SUM	\$ 42,000	\$ 42,000
4	Erosion Control	LUMP SUM	\$ 42,000	\$ 42,000
5	Additional Pipe Fittings	3,000 LB	\$ 7.00	\$ 21,000
6	Trench Safety Systems	LUMP SUM	\$ 25,000	\$ 25,000
7	16-inch Butterfly Valves	16 EA	\$ 10,000	\$ 160,000
8	Fire Hydrants	13 EA	\$ 5,500	\$ 71,500
9	Crushed Surfacing, Top Course	5,870 TN	\$ 30	\$ 176,100
10	Foundation Gravel	370 TN	\$ 35	\$ 12,950
11	HMA Cl. 1/2 PG 58-22	730 TN	\$ 200	\$ 146,000
12	Sawcutting	10,000 LF	\$ 4	\$ 40,000
13	Cold Mix Asphalt	230 TN	\$ 170	\$ 39,100
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	3/4" Service Connections, complete	50 EA	\$ 1,000	\$ 50,000
16	Traffic Control	200 HRS	\$ 100	\$ 20,000
Subtotal.....				\$ 1,898,650
Tax rate (8.9%).....				<u>168,980</u>
Subtotal:.....				\$ 2,067,630
Contingency (20%).....				<u>\$ 413,370</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 2,481,000
Engineering and Administrative Costs (30%):.....				<u>\$ 744,300</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 3,225,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DISTRIBUTION SYSTEM IMPROVEMENT D-21
Avenue Southeast and Southeast 92nd Street**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 75,000	\$ 75,000
2	16-inch DI Water Pipe, Including Fittings	2,750 LF	\$ 180	\$ 495,000
3	Locate Existing Utilities	LUMP SUM	\$ 22,000	\$ 22,000
4	Erosion Control	LUMP SUM	\$ 22,000	\$ 22,000
5	Additional Pipe Fittings	1,700 LB	\$ 7.00	\$ 11,900
6	Trench Safety Systems	LUMP SUM	\$ 13,800	\$ 13,800
7	16-inch Butterfly Valves	8 EA	\$ 10,000	\$ 80,000
8	Fire Hydrants	7 EA	\$ 5,500	\$ 38,500
9	Crushed Surfacing, Top Course	3,230 TN	\$ 30	\$ 96,900
10	Foundation Gravel	200 TN	\$ 35	\$ 7,000
11	HMA Cl. 1/2 PG 58-22	400 TN	\$ 200	\$ 80,000
12	Sawcutting	5,500 LF	\$ 4	\$ 22,000
13	Cold Mix Asphalt	130 TN	\$ 170	\$ 22,100
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	3/4" Service Connections, complete	9 EA	\$ 1,000	\$ 9,000
16	Traffic Control	112 HRS	\$ 100	\$ 11,200
Subtotal.....				\$ 1,018,400
Tax rate (8.9%).....				<u>90,638</u>
Subtotal:.....				\$ 1,109,038
Contingency (20%).....				<u>\$ 221,962</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 1,331,000
Engineering and Administrative Costs (30%):.....				<u>\$ 399,300</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 1,730,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DEVELOPER EXTENSION SYSTEM IMPROVEMENT DE-1
420th Avenue SE and SE 102nd Street

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM		\$ 93,000	\$ 93,000
2	12-inch DI Water Pipe, Including Fittings	4,000 LF		\$ 150	\$ 600,000
3	Locate Existing Utilities	LUMP SUM		\$ 28,000	\$ 28,000
4	Erosion Control	LUMP SUM		\$ 28,000	\$ 28,000
5	Additional Pipe Fittings	2,000 LB		\$ 7.00	\$ 14,000
6	Trench Safety Systems	LUMP SUM		\$ 20,000	\$ 20,000
7	12-inch Gate Valves	26 EA		\$ 3,000	\$ 78,000
8	Fire Hydrants	11 EA		\$ 5,500	\$ 60,500
9	Crushed Surfacing, Top Course	4,110 TN		\$ 30	\$ 123,300
10	Foundation Gravel	260 TN		\$ 35	\$ 9,100
11	HMA Cl. 1/2 PG 58-22	540 TN		\$ 200	\$ 108,000
12	Sawcutting	8,000 LF		\$ 4	\$ 32,000
13	Cold Mix Asphalt	180 TN		\$ 170	\$ 30,600
14	Connections to Existing System	2 EA		\$ 6,000	\$ 12,000
15	Traffic Control	160 HRS		\$ 100	\$ 16,000
Subtotal.....					\$ 1,252,500
Tax rate (8.9%).....					<u>111,473</u>
Subtotal:.....					\$ 1,363,973
Contingency (20%).....					<u>\$ 273,028</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....					\$ 1,637,000
Engineering and Administrative Costs (30%):.....					<u>\$ 491,100</u>
TOTAL ESTIMATED PROJECT COST:.....					<u><u>\$ 2,128,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)					

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DEVELOPER EXTENSION SYSTEM IMPROVEMENT DE-2
428th Avenue SE and SE 120th Street**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 88,000	\$ 88,000
2	16-inch DI Water Pipe, Including Fittings	3,200 LF	\$ 180	\$ 576,000
3	Locate Existing Utilities	LUMP SUM	\$ 26,000	\$ 26,000
4	Erosion Control	LUMP SUM	\$ 26,000	\$ 26,000
5	Additional Pipe Fittings	1,900 LB	\$ 7.00	\$ 13,300
6	Trench Safety Systems	LUMP SUM	\$ 16,000	\$ 16,000
7	16-inch Butterfly Valves	10 EA	\$ 10,000	\$ 100,000
8	Fire Hydrants	9 EA	\$ 5,500	\$ 49,500
9	Crushed Surfacing, Top Course	3,760 TN	\$ 30	\$ 112,800
10	Foundation Gravel	230 TN	\$ 35	\$ 8,050
11	HMA Cl. 1/2 PG 58-22	470 TN	\$ 200	\$ 94,000
12	Sawcutting	6,400 LF	\$ 4	\$ 25,600
13	Cold Mix Asphalt	150 TN	\$ 170	\$ 25,500
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	Traffic Control	128 HRS	\$ 100	\$ 12,800
Subtotal.....				\$ 1,185,550
Tax rate (8.9%).....				<u>105,514</u>
Subtotal:.....				\$ 1,291,064
Contingency (20%).....				<u>\$ 257,936</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 1,549,000
Engineering and Administrative Costs (30%):.....				<u>\$ 464,700</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 2,014,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DEVELOPER EXTENSION SYSTEM IMPROVEMENT DE-3
417th Avenue SE**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 58,000	\$ 58,000
2	12-inch DI Water Pipe, Including Fittings	2,500 LF	\$ 150	\$ 375,000
3	Locate Existing Utilities	LUMP SUM	\$ 17,000	\$ 17,000
4	Erosion Control	LUMP SUM	\$ 17,000	\$ 17,000
5	Additional Pipe Fittings	1,300 LB	\$ 7.00	\$ 9,100
6	Trench Safety Systems	LUMP SUM	\$ 12,500	\$ 12,500
7	12-inch Gate Valves	16 EA	\$ 3,000	\$ 48,000
8	Fire Hydrants	7 EA	\$ 5,500	\$ 38,500
9	Crushed Surfacing, Top Course	2,570 TN	\$ 30	\$ 77,100
10	Foundation Gravel	160 TN	\$ 35	\$ 5,600
11	HMA Cl. 1/2 PG 58-22	340 TN	\$ 200	\$ 68,000
12	Sawcutting	5,000 LF	\$ 4	\$ 20,000
13	Cold Mix Asphalt	110 TN	\$ 170	\$ 18,700
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	Traffic Control	100 HRS	\$ 100	\$ 10,000
Subtotal.....				\$ 786,500
Tax rate (8.9%).....				<u>69,999</u>
Subtotal:.....				\$ 856,499
Contingency (20%).....				<u>\$ 171,502</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 1,028,000
Engineering and Administrative Costs (30%):.....				<u>\$ 308,400</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 1,336,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DEVELOPER EXTENSION SYSTEM IMPROVEMENT DE-4
SE 101st Street**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 40,000	\$ 40,000
2	12-inch DI Water Pipe, Including Fittings	1,700 LF	\$ 150	\$ 255,000
3	Locate Existing Utilities	LUMP SUM	\$ 12,000	\$ 12,000
4	Erosion Control	LUMP SUM	\$ 12,000	\$ 12,000
5	Additional Pipe Fittings	900 LB	\$ 7.00	\$ 6,300
6	Trench Safety Systems	LUMP SUM	\$ 8,500	\$ 8,500
7	12-inch Gate Valves	10 EA	\$ 3,000	\$ 30,000
8	Fire Hydrants	5 EA	\$ 5,500	\$ 27,500
9	Crushed Surfacing, Top Course	1,750 TN	\$ 30	\$ 52,500
10	Foundation Gravel	110 TN	\$ 35	\$ 3,850
11	HMA Cl. 1/2 PG 58-22	230 TN	\$ 200	\$ 46,000
12	Sawcutting	3,400 LF	\$ 4	\$ 13,600
13	Cold Mix Asphalt	80 TN	\$ 170	\$ 13,600
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	Traffic Control	68 HRS	\$ 100	\$ 6,800
Subtotal.....				\$ 539,650
Tax rate (8.9%).....				<u>48,029</u>
Subtotal:.....				\$ 587,679
Contingency (20%).....				<u>\$ 117,321</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 705,000
Engineering and Administrative Costs (30%):.....				<u>\$ 211,500</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 917,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DEVELOPER EXTENSION SYSTEM IMPROVEMENT DE-5
14th Street NW**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 35,000	\$ 35,000
2	12-inch DI Water Pipe, Including Fittings	1,500 LF	\$ 150	\$ 225,000
3	Locate Existing Utilities	LUMP SUM	\$ 11,000	\$ 11,000
4	Erosion Control	LUMP SUM	\$ 11,000	\$ 11,000
5	Additional Pipe Fittings	800 LB	\$ 7.00	\$ 5,600
6	Trench Safety Systems	LUMP SUM	\$ 7,500	\$ 7,500
7	12-inch Gate Valves	10 EA	\$ 3,000	\$ 30,000
8	Fire Hydrants	4 EA	\$ 5,500	\$ 22,000
9	Crushed Surfacing, Top Course	1,540 TN	\$ 30	\$ 46,200
10	Foundation Gravel	100 TN	\$ 35	\$ 3,500
11	HMA Cl. 1/2 PG 58-22	200 TN	\$ 200	\$ 40,000
12	Sawcutting	3,000 LF	\$ 4	\$ 12,000
13	Cold Mix Asphalt	70 TN	\$ 170	\$ 11,900
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	Traffic Control	60 HRS	\$ 100	\$ 6,000
Subtotal.....				\$ 478,700
Tax rate (8.9%).....				<u>42,604</u>
Subtotal:.....				\$ 521,304
Contingency (20%).....				<u>\$ 104,696</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 626,000
Engineering and Administrative Costs (30%):.....				<u>\$ 187,800</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 814,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DEVELOPER EXTENSION SYSTEM IMPROVEMENT DE-6
NW 8th Street**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM		\$ 83,000	\$ 83,000
2	16-inch DI Water Pipe, Including Fittings	3,000 LF		\$ 180	\$ 540,000
3	Locate Existing Utilities	LUMP SUM		\$ 25,000	\$ 25,000
4	Erosion Control	LUMP SUM		\$ 25,000	\$ 25,000
5	Additional Pipe Fittings	1,800 LB		\$ 7.00	\$ 12,600
6	Trench Safety Systems	LUMP SUM		\$ 15,000	\$ 15,000
7	16-inch Butterfly Valves	10 EA		\$ 10,000	\$ 100,000
8	Fire Hydrants	8 EA		\$ 5,500	\$ 44,000
9	Crushed Surfacing, Top Course	3,520 TN		\$ 30	\$ 105,600
10	Foundation Gravel	220 TN		\$ 35	\$ 7,700
11	HMA Cl. 1/2 PG 58-22	440 TN		\$ 200	\$ 88,000
12	Sawcutting	6,000 LF		\$ 4	\$ 24,000
13	Cold Mix Asphalt	140 TN		\$ 170	\$ 23,800
14	Connections to Existing System	2 EA		\$ 6,000	\$ 12,000
15	Traffic Control	120 HRS		\$ 100	\$ 12,000
Subtotal.....					\$ 1,117,700
Tax rate (8.9%).....					<u>99,475</u>
Subtotal:.....					\$ 1,217,175
Contingency (20%).....					<u>\$ 243,825</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....					\$ 1,461,000
Engineering and Administrative Costs (30%):.....					<u>\$ 438,300</u>
TOTAL ESTIMATED PROJECT COST:.....					<u><u>\$ 1,899,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)					

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DEVELOPER EXTENSION IMPROVEMENT DE-7
NW 8th Street to NW 14th Street**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 55,000	\$ 55,000
2	16-inch DI Water Pipe, Including Fittings	2,000 LF	\$ 180	\$ 360,000
3	Locate Existing Utilities	LUMP SUM	\$ 16,000	\$ 16,000
4	Erosion Control	LUMP SUM	\$ 16,000	\$ 16,000
5	Additional Pipe Fittings	1,200 LB	\$ 7.00	\$ 8,400
6	Trench Safety Systems	LUMP SUM	\$ 10,000	\$ 10,000
7	16-inch Butterfly Valves	6 EA	\$ 10,000	\$ 60,000
8	Fire Hydrants	6 EA	\$ 5,500	\$ 33,000
9	Crushed Surfacing, Top Course	2,350 TN	\$ 30	\$ 70,500
10	Foundation Gravel	150 TN	\$ 35	\$ 5,250
11	HMA Cl. 1/2 PG 58-22	290 TN	\$ 200	\$ 58,000
12	Sawcutting	4,000 LF	\$ 4	\$ 16,000
13	Cold Mix Asphalt	90 TN	\$ 170	\$ 15,300
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	Traffic Control	80 HRS	\$ 100	\$ 8,000
Subtotal.....				\$ 743,450
Tax rate (8.9%).....				<u>66,167</u>
Subtotal:.....				\$ 809,617
Contingency (20%).....				<u>\$ 162,383</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 972,000
Engineering and Administrative Costs (30%):.....				<u>\$ 291,600</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 1,264,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DEVELOPER EXTENSION SYSTEM IMPROVEMENT DE-8
NE 10th Street from 428th Avenue to Borst Avenue NE**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 55,000	\$ 55,000
2	16-inch DI Water Pipe, Including Fittings	2,000 LF	\$ 180	\$ 360,000
3	Locate Existing Utilities	LUMP SUM	\$ 16,000	\$ 16,000
4	Erosion Control	LUMP SUM	\$ 16,000	\$ 16,000
5	Additional Pipe Fittings	1,200 LB	\$ 7.00	\$ 8,400
6	Trench Safety Systems	LUMP SUM	\$ 10,000	\$ 10,000
7	16-inch Butterfly Valves	6 EA	\$ 10,000	\$ 60,000
8	Fire Hydrants	6 EA	\$ 5,500	\$ 33,000
9	Crushed Surfacing, Top Course	2,350 TN	\$ 30	\$ 70,500
10	Foundation Gravel	150 TN	\$ 35	\$ 5,250
11	HMA Cl. 1/2 PG 58-22	290 TN	\$ 200	\$ 58,000
12	Sawcutting	4,000 LF	\$ 4	\$ 16,000
13	Cold Mix Asphalt	90 TN	\$ 170	\$ 15,300
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	Traffic Control	80 HRS	\$ 100	\$ 8,000
Subtotal.....				\$ 743,450
Tax rate (8.9%).....				<u>66,167</u>
Subtotal:.....				\$ 809,617
Contingency (20%).....				<u>\$ 162,383</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 972,000
Engineering and Administrative Costs (30%):.....				<u>\$ 291,600</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 1,264,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

**CITY OF NORTH BEND
PRELIMINARY PROJECT COST ESTIMATE
DEVELOPER EXTENSION SYSTEM IMPROVEMENT DE-9
SE 87th Street, 436th Place SE, and 438th Place SE**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization, Cleanup, and Demobilization	LUMP SUM	\$ 43,000	\$ 43,000
2	16-inch DI Water Pipe, Including Fittings	1,500 LF	\$ 180	\$ 270,000
3	Locate Existing Utilities	LUMP SUM	\$ 13,000	\$ 13,000
4	Erosion Control	LUMP SUM	\$ 13,000	\$ 13,000
5	Additional Pipe Fittings	900 LB	\$ 7.00	\$ 6,300
6	Trench Safety Systems	LUMP SUM	\$ 7,500	\$ 7,500
7	16-inch Butterfly Valves	4 EA	\$ 10,000	\$ 40,000
8	Fire Hydrants	4 EA	\$ 5,500	\$ 22,000
9	Crushed Surfacing, Top Course	1,760 TN	\$ 30	\$ 52,800
10	Foundation Gravel	110 TN	\$ 35	\$ 3,850
11	HMA Cl. 1/2 PG 58-22	220 TN	\$ 200	\$ 44,000
12	Sawcutting	3,000 LF	\$ 4	\$ 12,000
13	Cold Mix Asphalt	70 TN	\$ 170	\$ 11,900
14	Connections to Existing System	2 EA	\$ 6,000	\$ 12,000
15	3/4" Service Connections, complete	20 EA	\$ 1,000	\$ 20,000
16	Traffic Control	60 HRS	\$ 100	\$ 6,000
Subtotal.....				\$ 577,350
Tax rate (8.9%).....				<u>51,384</u>
Subtotal:.....				\$ 628,734
Contingency (20%).....				<u>\$ 125,266</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 754,000
Engineering and Administrative Costs (30%):.....				<u>\$ 226,200</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 980,000</u></u>
ENR Construction Cost Index = 12,117 (Feb 2020)				

APPENDIX T
SEPA CHECKLIST

****DUE TO COVID the comment period has been extended to April 20, 2020 12p.m.
Revised April 9, 2020.**

**NOTICE OF STATE ENVIRONMENTAL POLICY ACT (SEPA)
DETERMINATION OF NONSIGNIFICANCE (DNS)**

Project Name: City of North Bend Water System Plan

DNS Issuance Date: March 27, 2020
Public Comment Deadline: April 20, 2020, 12p.m.

Description of Proposal:

The City of North Bend Water System Plan is a planning document evaluating and describing the City's water system and providing a list of capital projects necessary to provide water service through the 10-year planning period. It is used as a resource by the City and state regulatory agencies. The plan describes management, standards, policies, service area, geography, quality, infrastructure, operations and finance of the City's water utility.

The Checklist and Plan are available on the City's website under public notices.

Threshold Determination:

The City of North Bend (lead agency for this proposal) has determined that this proposal does not have a probable significant adverse impact on the environment that cannot be mitigated through compliance with the conditions of the North Bend Municipal Code and other applicable regulations. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist on file with the lead agency. This information is available to the public on request by contacting Senior Planner Jamie Burrell at the email or phone below and the Plan is available for viewing under Public Notices on the City website at <http://northbendwa.gov>.

This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date of publication of the notice of DNS, allowing time for public comment. The issuance of this DNS should not be interpreted as acceptance or approval of this proposal as presented. The City of North Bend reserves the right to deny or approve said proposal subject to conditions if it is determined to be in the best interest of the City and/or necessary for the general health, safety, and welfare of the public.

SEPA Responsible Official:

David Miller, CED Director

For More Information:

Contact Jamie Burrell at the Community and Economic Development Department at (425) 888-7642 or via email to jburrell@northbendwa.gov. Email or mail written comments for the DNS to the North Bend Community and Economic Development Department, PO Box 896, North Bend, WA 98045.

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background [\[HELP\]](#)

1. Name of proposed project, if applicable:
City of North Bend Water System Plan

2. Name of applicant:
City of North Bend

3. Address and phone number of applicant and contact person:

Donald DeBerg
PO Box 896
North Bend, WA 98045
(425) 888-7652

4. Date checklist prepared:

March 6, 2020

5. Agency requesting checklist:

City of North Bend

6. Proposed timing or schedule (including phasing, if applicable):

Each project proposed in the Water System Plan (Plan) will be scheduled on a project-specific basis. The recommendations proposed in the current 10-year and future 20-year planning periods are subject to change based on changing priorities and effort to coordinate with other projects.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

This proposal is non-project action; therefore, this question does not apply.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

City of North Bend Comprehensive Plan, 2015
East King County Ground Water Management Plan, December 1998
East King County Coordinated Water System Plan October 1989, 1996

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None applicable.

10. List any government approvals or permits that will be needed for your proposal, if known.

The plan requires approval of the Department of Health and Department of Ecology. The plan will also be checked for consistency with King County policies and planning.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The City of North Bend Water System Plan is a planning document evaluating and describing the City's water system and providing a list of capital projects necessary to provide water service through the 10-year planning period. It is used as a resource by the City and state regulatory agencies. The plan describes management, standards, policies,

service area, geography, quality, infrastructure, operations, and finance of the City's water utility.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The project area includes the City's water service area as shown on Figure 1-3 of the Plan.

B. Environmental Elements [\[HELP\]](#)

1. Earth [\[help\]](#)

a. General description of the site:

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

b. What is the steepest slope on the site (approximate percent slope)?

The southwestern edge of the City has steep slopes, which are approximately 15%.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Soils will be considered on a project specific basis.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

The City has not had a history of unstable soils. However, slope stability will be determined on a project specific basis.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

No filling or grading will occur at this time. Grading and filling quantities will be developed along with permits and approvals for specific projects.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Construction associated with recommended water system capital improvement projects will include protective measures for erosion control where necessary. Appropriate best management practices, erosion control, and mitigation measures will be determined on a project specific basis prior to the actual time of construction.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

This will be determined on a project specific basis.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

No earth impacts are anticipated as a result of Plan adoption. Project specific impacts will be evaluated on a project specific basis.

2. Air [\[help\]](#)

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Recommended water system capital improvement construction projects should not result in impacts to air quality with the possible exception of dust and vehicle emissions from construction equipment. Project specific impacts will be evaluated on a project specific basis.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

This will be determined on a project specific basis.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

No impacts to air are anticipated as a result of the adoption of this Plan. Project specific impacts will be evaluated on a project specific basis.

3. Water [\[help\]](#)

a. Surface Water: [\[help\]](#)

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

The North, Middle and South Forks of the Snoqualmie River run through or adjacent to the City's water service area. Additionally, there are several small streams and creeks as well as wetlands within the water service area.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

This will be determined on a project specific basis.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

This will be determined on a project specific basis.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

This will be determined on a project specific basis.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

Portions of the water service area lie within the 100-year flood plain.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

None anticipated. However, this will be determined on a project specific basis.

b. Ground Water: [\[help\]](#)

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

This will be determined on a project specific basis.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None anticipated.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

This will be determined on a project specific basis.

2) Could waste materials enter ground or surface waters? If so, generally describe.

None anticipated.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

This will be determined on a project specific basis.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

None required with this Plan. Individual projects will be evaluated on a project specific basis and utilize best management practices to control runoff water impacts.

4. **Plants** [\[help\]](#)

a. Check the types of vegetation found on the site:

- ☒ deciduous tree: alder, maple, aspen, other
☒ evergreen tree: fir, cedar, pine, other
☒ shrubs
☒ grass
☒ pasture
☒ crop or grain
☒ Orchards, vineyards or other permanent crops.
☒ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
☒ water plants: water lily, eelgrass, milfoil, other
☒ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

This will be determined on a project specific basis.

c. List threatened and endangered species known to be on or near the site.

No threatened or endangered species have been identified within the water service area or surrounding area.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

This will be determined on a project specific basis.

e. List all noxious weeds and invasive species known to be on or near the site.

This will be determined on a project specific basis.

5. *Animals* [\[help\]](#)

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

birds: **hawk, heron, eagle, songbirds**, other: **crows**
 mammals: **deer, bear, elk, beaver**, other:
 fish: **bass, salmon, trout, herring, shellfish**, other _____

b. List any threatened and endangered species known to be on or near the site.

Endangered species include gray wolves. Proposed threatened species included North American wolverines. Threatened birds include marbled murrelet and Yellow-billed cuckoo. Threatened fish include the bull trout.

Threatened and endangered species will also be evaluated on a project-specific basis.

c. Is the site part of a migration route? If so, explain.

Yes, Western Washington is part of the Pacific Flyway. Potential impacts will be evaluated on a project specific basis.

d. Proposed measures to preserve or enhance wildlife, if any:

This will be evaluated on a project specific basis.

e. List any invasive animal species known to be on or near the site.

This will be evaluated on a project specific basis.

6. Energy and Natural Resources [\[help\]](#)

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Energy needs will be evaluated on a project specific basis. However, energy demands will largely consist of electrical energy for operation of pumps and electronics systems.

b. Would your project affect the potential use of solar energy by adjacent properties?
If so, generally describe.

Potential impacts will be evaluated on a project-specific basis, but projects are unlikely to impact potential use of solar energy by adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal?
List other proposed measures to reduce or control energy impacts, if any:

Opportunities for energy-conserving features will be identified on a project-specific basis.

7. Environmental Health [\[help\]](#)

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal?
If so, describe.

Potential hazards will be identified on a project-specific basis.

1) Describe any known or possible contamination at the site from present or past uses.

No anticipated contamination issues at project sites; sites will be fully evaluated on a project-specific basis.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

Gas transmission and service lines, when present within a project area, will be identified on project plans, and will be avoided. The designer and the contractor will coordinate with the gas utility provider on a project-specific basis to avoid utility conflicts.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Use of toxic or hazardous chemicals will be evaluated on a project-specific basis.

- 4) Describe special emergency services that might be required.
To be determined on a project-specific basis.
- 5) Proposed measures to reduce or control environmental health hazards, if any:
To be determined on a project-specific basis.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Traffic noise is anticipated in some project areas, but is not expected to impact projects. Other potential sources of noise will be evaluated on a project-specific basis.

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

This is a non-project action, however during implementation of the projects described in the plan, short-term noise from construction activities is anticipated during normal daytime working hours.

- 3) Proposed measures to reduce or control noise impacts, if any:

Necessary measures will be determined on a project-specific basis.

8. Land and Shoreline Use [\[help\]](#)

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

To be determined on a project-specific basis. In general, projects will be within existing City property and ROW, and are not anticipated to affect land uses on nearby or adjacent properties.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

This will be determined on a project specific basis.

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

None anticipated.

- c. Describe any structures on the site.

To be determined on a project specific basis.

- d. Will any structures be demolished? If so, what?

To be determined on a project specific basis.

e. What is the current zoning classification of the site?

To be determined on a project specific basis.

f. What is the current comprehensive plan designation of the site?

To be determined on a project specific basis.

g. If applicable, what is the current shoreline master program designation of the site?

To be determined on a project specific basis.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

To be determined on a project specific basis.

i. Approximately how many people would reside or work in the completed project?

None.

j. Approximately how many people would the completed project displace?

None anticipated.

k. Proposed measures to avoid or reduce displacement impacts, if any:

To be determined on a project-specific basis. No displacement impacts are anticipated.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Proposals will be consistent with local ordinances related to land use planning and will be determined on a project specific basis.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

No impacts anticipated.

9. Housing [\[help\]](#)

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None anticipated.

c. Proposed measures to reduce or control housing impacts, if any:

No impacts anticipated.

10. Aesthetics [\[help\]](#)

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

To be determined on a project-specific basis. One new water storage reservoir is contemplated in the plan. The height will likely match an existing, neighboring water reservoir of 29 feet.

- b. What views in the immediate vicinity would be altered or obstructed?

To be determined on a project-specific basis; no impacts are anticipated.

- b. Proposed measures to reduce or control aesthetic impacts, if any:

To be determined on a project-specific basis; no impacts are anticipated.

11. Light and Glare [\[help\]](#)

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

To be determined on a project-specific basis; no impacts are anticipated.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

To be determined on a project-specific basis; no impacts are anticipated.

- c. What existing off-site sources of light or glare may affect your proposal?

To be determined on a project-specific basis.

- d. Proposed measures to reduce or control light and glare impacts, if any:

To be determined on a project-specific basis; no impacts are anticipated.

12. Recreation [\[help\]](#)

- a. What designated and informal recreational opportunities are in the immediate vicinity?

To be determined on a project-specific basis.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

To be determined on a project-specific basis.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

To be determined on a project-specific basis.

13. Historic and cultural preservation [\[help\]](#)

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

This proposal is a non-project action and does not affect a specific site. The following historic properties are listed in the Land Use Element of the City's Comprehensive Plan: Tollgate Farm, Si View Park Buildings, Fort Smalley, Meadowbrook Farm, Milwaukee Railroad Bridge (since removed), Downtown Commercial Historic District, Snoqualmie

Tribe “Swing Rock”, and the Forest Service Complex. Some of these are listed on King County’s Historic Preservation Program and there are efforts to identify other historic sites and to list these with King County’s program.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

This proposal is a non-project action and does not affect a specific site. The City of North Bend includes some landmarks or evidence of historic, archaeological, scientific, or cultural importance; however no known specific sites are affected by this proposal.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Future projects will adhere to and comply with all local, State, and Federal historical and archaeological preservation laws, should any artifacts or items be discovered during construction. Washington cultural resource laws (RCW 27.53) state that no known archaeological resources or site can knowingly be damaged without obtaining a certified permit from the Washington State Office of Archaeology and Historic Preservation (OAHP). Also under Washington State law, all archaeological sites and resources are protected on private and public lands (RCW 27.53). Section 106 of the National Historic Preservation Act of 1996, as amended, stipulates early, often, and continuous consultation with the project’s Federal/State lead agency and affected Native American Tribe(s) depending on the jurisdiction of the proposed project. If any significant archaeological resources are discovered during project related construction excavation and/or operation/maintenance, all activities must stop in the immediate area. A professional archaeologist should be contacted to inspect and assess the disturbed archaeological deposits. If necessary, OAHP and the affected Native American Tribe(s) would be contacted to further assess the damaged cultural resources. Future site-specific project actions would be subject to further environmental review on a case-by-case basis.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

To be determined on a project-specific basis.

14. Transportation [\[help\]](#)

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

To be determined on a project-specific basis.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

To be determined on a project-specific basis.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

To be determined on a project-specific basis.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

To be determined on a project-specific basis.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

To be determined on a project-specific basis.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

To be determined on a project-specific basis.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

To be determined on a project-specific basis.

- h. Proposed measures to reduce or control transportation impacts, if any:

To be determined on a project-specific basis.

15. Public Services [\[help\]](#)

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No. Projects will facilitate provision of public services such as drinking water and fire protection.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

No effects anticipated.

16. Utilities [\[help\]](#)

- a. Circle utilities currently available at the site:

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other phone, cable television

- c. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Projects recommended by this plan propose water utility improvements, provided by the City of North Bend.

C. Signature [\[HELP\]](#)

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Name of signee Donald DeBerg

Position and Agency/Organization City of North Bend

Date Submitted: 3/12/2020

D. Supplemental sheet for nonproject actions [\[HELP\]](#)

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

The Water System Plan, alone, does not result in an increased discharge to water, emissions to air, production, storage, or release of toxic or hazardous substances, or production of noise. Construction of the projects proposed in the plan may increase impervious surface areas, causing increases in the amount of stormwater discharged to water. These impacts will be determined and evaluated on a project specific basis.

Proposed measures to avoid or reduce such increases are:

Projects that are subject to SEPA will be reviewed to identify environmental impacts and mitigation measures. Further, all projects will comply with local, state, and federal regulations related to environmental impacts. Stormwater runoff impact will be mitigated consistent with the standards in the version of the King County Surface Water Design Manual that the City has adopted at the time of design.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The Water System Plan, alone, does not result in any impacts on plants, animals, fish, or marine life. Some proposed projects identified in the plan may result in increased impervious surface area and runoff quantities. These impacts will be determined and evaluated on a project specific basis.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

Projects that are subject to SEPA will be reviewed to identify environmental impacts and mitigation measures. Furthermore, all projects will comply with local, state, and federal regulations related to environmental impacts. Stormwater runoff impact will be mitigated consistent with the standards in the version of the King County Surface Water Design Manual that the City has adopted at the time of design. If threatened or endangered plant, animal, fish or marine species are discovered during construction, all work will cease until the Department of Fish and Wildlife or the Department of Natural Resources can be contacted and an expert brought on to the site.

3. How would the proposal be likely to deplete energy or natural resources?

The Water System Plan, alone, does not result in any effects on energy or natural resources. Subsequent construction and operation of the water system may result in increased energy demand and usage. These impacts will be determined and evaluated on a project specific basis.

Proposed measures to protect or conserve energy and natural resources are:
To be determined on a project specific basis.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

The Water System Plan, alone, does not result in any direct impacts on sensitive areas or areas designated for governmental protection such as parks, wilderness, wild and scenic rivers, threatened or endangered species, historic or cultural sites, wetlands, floodplains, or prime farmlands. Subsequent developments would be required to satisfy current local, state, and federal regulations governing these aforementioned areas of concern.

Proposed measures to protect such resources or to avoid or reduce impacts are:
To be determined on a project specific basis.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

The Water System Plan, alone, does not result in any direct impacts to land and shoreline use. Project developments will be required to comply with all local, state, and federal regulations.

Proposed measures to avoid or reduce shoreline and land use impacts are:

Projects that are required to satisfy SEPA requirements will be thoroughly screened and reviewed for environmental compliance. Furthermore, all projects will be required to comply with local, state, and federal regulations related to environmental impacts. To be determined on a project specific basis.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

This will be determined on a project specific basis. However, the proposal is not likely to increase demands on transportation or public service and utilities. Improvements to the water utility will increase reliability of the water system.

Proposed measures to reduce or respond to such demand(s) are:

Construction associated with the water distribution system will be scheduled to avoid peak hour impacts to major arterials. Traffic control plans will be developed and approved by the City of North Bend, King County, and/or WSDOT to minimize any

impacts to local neighborhoods and commercial areas. No long-term transportation impacts are anticipated as a result of this proposal.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The proposal does not conflict with local, state, or federal laws or requirements for the protection of the environment.



**NOTICE OF STATE ENVIRONMENTAL POLICY ACT (SEPA)
DETERMINATION OF NONSIGNIFICANCE (DNS)**

Project Name: City of North Bend Water System Plan

DNS Issuance Date:

March 27, 2020

Public Comment Deadline:

April 10, 2020, 12p.m.

Description of Proposal:

The City of North Bend Water System Plan is a planning document evaluating and describing the City's water system and providing a list of capital projects necessary to provide water service through the 10-year planning period. It is used as a resource by the City and state regulatory agencies. The plan describes management, standards, policies, service area, geography, quality, infrastructure, operations and finance of the City's water utility.

The Checklist and Plan are available on the City's website under public notices.

Threshold Determination:

The City of North Bend (lead agency for this proposal) has determined that this proposal does not have a probable significant adverse impact on the environment that cannot be mitigated through compliance with the conditions of the North Bend Municipal Code and other applicable regulations. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist on file with the lead agency. This information is available to the public on request by contacting Senior Planner Jamie Burrell at the email or phone below and the Plan is available for viewing under Public Notices on the City website at <http://northbendwa.gov>.

This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date of publication of the notice of DNS, allowing time for public comment. The issuance of this DNS should not be interpreted as acceptance or approval of this proposal as presented. The City of North Bend reserves the right to deny or approve said proposal subject to conditions if it is determined to be in the best interest of the City and/or necessary for the general health, safety, and welfare of the public.

SEPA Responsible Official:

David Miller, CED Director

David E. Miller, AICP

3/19/20

For More Information:

Contact Jamie Burrell at the Community and Economic Development Department at (425) 888-7642 or via email to jburrell@northbendwa.gov. Email or mail written comments for the DNS to the North Bend Community and Economic Development Department, PO Box 896, North Bend, WA 98045.

City of North Bend Community & Economic Development
920 SE Cedar Falls Way, P.O. Box 896, North Bend, WA 98045 • Phone 425.888.5633 •
Fax 425.888-5636 • northbendwa.gov

APPENDIX U

CORRESPONDENCE AND APPROVALS

ORDINANCE 1728

AN ORDINANCE OF THE CITY OF NORTH BEND, WASHINGTON, ADOPTING THE 2020 WATER SYSTEM PLAN; PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

WHEREAS, Washington Administrative Code 246-290 requires Class A water system managers to prepare every 10 years a Water System Plan (Plan) of the water system; and

WHEREAS, the City of North Bend, a manager of a Class A water system, caused a Plan to be prepared in accordance with WAC 246-290; and

WHEREAS, the draft Plan was routed to all interested parties and their comments incorporated into the final version of the Plan; and

WHEREAS, the City held a Town Hall meeting about the Plan on May 26, 2020, as well as two Public Hearings on the Plan on June 16, 2020 and August 4, 2020 as prescribed in WAC 246-290-100;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF NORTH BEND, WASHINGTON, DOES HEREBY ORDAIN AS FOLLOWS:


Section 1. July 2020 Water System Plan, Adopted: The July 2020 Water System Plan, as prepared by Gray & Osborne, Inc. (G&O #19473), is hereby adopted, contingent on approval by the Washington State Department of Health as may be required by law. Pursuant to RCW 35A.12.140, a copy of the 2020 Water System Plan shall be filed in the office of the City Clerk for use and examination by the public and is also available on the City's website.

Section 2. Severability: Should any section, paragraph, sentence, clause or phrase of this ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this ordinance be pre-empted by state or federal law or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this ordinance or its application to other persons or circumstances.

Section 3. Effective Date: This ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

**ADOPTED BY THE CITY COUNCIL OF THE CITY OF NORTH BEND,
WASHINGTON, AT A REGULAR MEETING THEREOF, THIS 4TH DAY OF
AUGUST, 2020.**


CITY OF NORTH BEND:



Rob McFarland, Mayor

Published: August 14, 2020
Effective: August 19, 2020

APPROVED AS TO FORM:



Michael R. Kenyon, City Attorney

ATTEST/AUTHENTICATED:



Susie Oppedal, City Clerk



City Council Agenda Bill

SUBJECT:	Agenda Date: August 4, 2020	AB20-107
Public Hearing Cont., and Ordinance Adopting the 2020 Water System Plan	Department/Committee/Individual	
	Mayor Rob McFarland	
	City Administrator – David Miller	
	City Attorney – Mike Kenyon	
	City Clerk – Susie Oppedal	
	Community & Economic Development – David Miller	
	Finance – Dawn Masko	
Cost Impact: N/A	Public Works – Mark Rigos, P.E.	X
Fund Source: N/A		
Timeline: Immediate		
Attachments: Ordinance, Executive Summary, Public Hearing Notice, Public Comments		
<p>SUMMARY STATEMENT:</p> <p>On March 19, 2019, the City Council authorized a work order with Gray and Osborne, Inc. (G&O) to update the City's Water System Plan (the Plan) in accordance with WAC 246-290-100. Previously, plan updates were required to be completed every 6 years, however recent changes to state law now allow plans to be updated every 10 years. The most recent update to the plan was completed in 2010 and this new plan is intended to be adequate until 2030.</p> <p>Once in draft form, the plan is submitted to the Washington State Department of Health (DOH) and the King County Utilities Technical Review Committee (UTRC) for review. DOH shares the Plan with the Washington State Department of Ecology (Ecology) and all three entities check for consistency with state law and/or consistency with Countywide planning documents. Ultimately, the Plan must be approved by DOH, but this can only be done after adoption by the City Council.</p> <p>The Plan was completed in Draft form and sent to DOH and UTRC on March 18, 2020. All three entities had up to 90 days to complete their review and submit comments to the City. Ecology submitted their comments on May 22, 2020, DOH submitted theirs on June 11, 2020, and UTRC submitted initial comments on June 30, 2020. UTRC Chair Jae Hill informed City staff that they may have additional comments after their July 15, 2020 meeting. After receiving comments, staff worked with G&O to make necessary changes to the Plan. The next steps are City Council adoption and submission to DOH and UTRC for final approval.</p> <p>Public Involvement is also required for adoption of the Plan. The City held a virtual Town Hall meeting on May 26, 2020 and opened a public hearing for the Plan at the June 16, 2020 City Council Meeting. The public hearing was continued to the August 4, 2020 City Council meeting, where final adoption of the Plan is anticipated to take place. This is a conditional adoption of the plan, contingent on approval by King County and the DOH.</p> <p>The Executive Summary for the draft Plan is attached and the full draft Plan can be viewed on the City's website at the following URL: https://northbendwa.gov/DocumentCenter/View/7646/Water-System-Plan</p>		
APPLICABLE BRAND GUIDELINES: Consistent delivery of quality basic services including transportation and traffic management.		
COMMITTEE REVIEW AND RECOMMENDATION: This item was discussed at the June 26, 2020 Transportation and Public Work Committee meeting and was recommended for approval.		

City Council Agenda Bill

RECOMMENDED ACTION: MOTION to approve AB20-107, an ordinance adopting the 2020 Water System Plan, as a 5 Year Plan and incorporating those ministerial amendments proposed by the King County Utilities Technical Review Committee in its letter dated August 3, 2020, as a final reading.

RECORD OF COUNCIL ACTION

<i>Meeting Date</i>	<i>Action</i>	<i>Vote</i>
June 16, 2020	AB20-085 – Passed - 1 st Reading	6-0
August 4, 2020	Passed Ordinance 1728	5-0



State of Washington
DEPARTMENT OF HEALTH

NORTHWEST DRINKING WATER REGIONAL OPERATIONS
 20425 72nd Avenue South, Suite 310 • Kent Washington 98032-2388

June 11, 2020

MARK RIGOS
 NORTH BEND, CITY OF
 PO BOX 896
 NORTH BEND WA 98045

Subject: City of North Bend, ID# 60100
 King County
 Water System Plan Review - 2020
 Submittal #20-0303

Dear Mr. Rigos:

Thank you for submitting the Water System Plan (WSP) for the City of North Bend (the City), received in this office on March 18, 2020. We have reviewed the plan and offer the following comments. These comments must be adequately addressed prior to approval of the WSP.

We recognize that the City requires Mitigation water from Sallal Water Association (Sallal) in order to meet demands in the near future and that the validity of this plan relies on the pending agreement between the two systems.

Description of Water System

1. Provide a determination of local government consistency from the City of North Bend's Planning Department.
2. King County Utilities Technical Review Committee will review your WSP. Please respond to their issues. Adequate responses to their issues will be necessary in order to receive a WSP Adoption Ordinance from King County.
3. Is the Cedar River Partners' property in the City's Retail Service Area and/or its Wholesale Service Area? Are the water demands for this project included in the City's demand forecast? Is Sallal's service area included in the City's Wholesale Service Area?

Basic Planning Data

4. Consider including in this chapter or in an appendix, a description of and graphics showing the historical seasonal variation in mitigation volume required.
5. The WSP states that enhanced efforts are needed to address summer peak demands. These would include 1) reduction of summer MDD, 2) reduction in distribution system leakage, 3)



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June 11, 2020
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the agreement with Sallal, and 4) additional mitigation sources such as Golf Course Well water right. If these efforts do not occur, at what point would the City be prepared to impose a moratorium?

System Analysis

6. I believe the 2009 version of our water system design manual said to design a pump station to provide fire flow plus maximum day demand assuming the largest routinely used pump was out of service. The update in our water system design manual reflects the requirement for system reliability per Chapter 246-293 of the WAC and does not include the word "routinely." This means that in a coordinated water system plan area, the booster pump station serving a closed system must be able to provide fire flow at maximum day demand with the largest pump out of service. In this case, the 2,650gpm pump of the 710 booster pump station. Please show the system meets this requirement or provide suggested system improvements with updated capital improvement schedule.
7. Table 3-11 Source Pumping Capacity Analysis uses the Mt. Si Springs pump capacity to fill the clearwell (2,000gpm) and not the pump capacity to the system (1,250gpm as noted on pages 1-7 and 1-9). Source capacity is also used to determine the time it takes to replenish fire suppression storage (refer to Tables 3-1 and 3-2). Does the system meet the city and Water System Design Manual source requirements and resiliency recommendations where 1,250gpm is used for Mt. Si Springs source? Please explain why it makes sense to use the pump capacity to the clearwell and not the system.
8. Chapter 4 Hydraulic Modeling. The hydraulic model should be re-calibrated to verify that the model still accurately reflects the distribution system. Inadvertent valve closures, PRV station changes and pump station operating characteristic can all change. As you are aware the department is allowing ten-year approval periods for qualifying water system plans, this could mean that the hydraulic model will not be verified for nearly 20 years. Provide a schedule for verifying the model calibration.

Water Use Efficiency/ Water Rights

9. Respond to the issues contained in Department of Ecology's letter dated May 22, 2020 and incorporate those into your WSP.
10. Please provide documentation of the public meeting held to discuss the 2020-2026 Water Use Efficiency Goals for the City.
11. Has the North Bend Operation and Monitoring Plan referenced in the Centennial well permit documentation been updated since 2007? If not, what is the intention regarding updating this plan? Please include the North Bend Operation and Monitoring Plan (Golder, 2007e), its update, or both.

Source Protection

12. A few sources of potential contamination do not appear to be included in the EDR & windshield survey. Please consider other land uses like cemeteries, farms, parks, school athletic fields, which can be sources of contamination from chemical application.

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13. It is unusual to combine CFR & modelled delineation methods, please elucidate 1) what the model uncertainties were that are addressed by including the CFR and 2) why the City wants to take an overly conservative approach?
14. Note that the area identified as “buffer” for the spring source appears to be more appropriately identified as the Critical Aquifer Recharge Area (CARA). Depending on how local codes are written, the “buffer” delineation may not be considered a part of the wellhead protection area (WHPA) or provided the appropriate protections. The spring source is located outside of City limits, the plan should include a discussion of King County’s CARA regulation and any coordination the City has done with the County, Department of Natural Resources and the US Forest Service relating to the protection of the spring source.
15. The adoption of the WHPA areas should be done as a part of the adoption of the water system plan and not be a recommendation. The recommendations about updating the CARA are appropriate.
16. The Wellhead Protection Plan recommends that the City adopt requirements for secondary containment within WHPA time of travel zones. Does the City intend to implement this and other recommendations in section 6.3? Please discuss.

Water Quality

17. Please provide the Stage 2 Disinfection Byproduct Monitoring Plan.
18. Regarding the Coliform Monitoring Plan (CMP), we have the following comments.
 - a. Please provide standard operating procedures for coliform routine and repeat sampling in the appendix with the CMP.
 - b. In Section E, as part of the routine sample schedule, this indicates that X14 (S01 Mt Si Spring) and S17 (S02, Centennial Well) are used as routine sample sites. Only distribution sites are appropriate as routine coliform sample sites. Please update or clarify. The recent coliform sample locations in our database correctly show that the Spring or well are not used as routine sites.
 - c. Consider adding a coliform sample site in the 780 pressure zone. It appears that there is not a routine sample site in this pressure zone.
 - d. Consider sampling more often each month to keep monitoring more continuous. For example, you may want to sample three times per month (two samples per week for three weeks) or two times per month (three samples each week).
 - e. The City’s Water Facilities Inventory (WFI) includes 239 non-residential connections (industrial, institutions, commercial) and four recreational services. However, no non-residential population is listed on the WFI. Some students, employees, visitors or other users of these non-residential connections may already be counted as residents of North Bend. While cautioning not to double count, please do provide estimates of consumers who come from outside the North Bend area in each of the WFI non-residential population sections. This additional population may or may not affect the number of routine coliform samples required each month.

North Bend, City of
June 11, 2020
Page 4

- f. Please consider when the Sallal emergency intertie may be in use. If North Bend incurs a positive bacteriological sample in its distribution system and the Sallal intertie is in use, North Bend must contact Sallal for Sallal to sample any of their groundwater wells that were in use.

Operations & Maintenance

19. Has the City completed the "Water Shortage Response Plan"? We typically see this plan as part of the emergency response plan. Given the history of the City not meeting the system demand (to include mitigation demand), planning for water shortage seems especially important. This response plan should identify the drought of record and what measures the City and community will execute to minimize demand.
20. Please add to the record keeping section of this chapter, the water main distribution system project construction completion reports. Please discuss the City's customer complaint program.
21. Consider updating the cross-connection control (CCC) program / manual. At a minimum, add a revision date to the CCC manual.
 - a. Page 4 of the CCC manual refers to the authority given by Municipal Code 13.28. Codification of Ordinance No. 391 was updated from 13.38 to 13.16.
 - b. The CCC program / manual must include procedures for responding to backflow incidents.
 - c. Reference to AWWA PNWS CCC manual is great. Consider adding Table 9 hazards from WAC 246-290-490 to highlight the minimum required protection for high hazard connections. For example, wastewater treatment plants require RPBA and air gap. This is not a recommendation as the AWWA reference suggests.

Distribution Facilities Design and Construction Standards

22. A complete up-to-date set of water distribution standard details and specifications must be submitted and reviewed if seeking project submittal exception to DOH for distribution main projects under WAC 246-290-125(2). Appendix K, Construction Standards, Section 6 WATER, 6.01 General Requirements refers to the standards applying within city limits. The city must provide construction standards for the city water system, both in and out of city limits, to meet the criteria for the submittal exception. Please make it clear that this set of water distribution standard details and specifications applies to projects inside and outside of city limits, clearly describe identify where these deviate if needed, or provide a set for projects outside of city limits.
23. The Standard Detail No. W-16 Air Vacuum Release Valve Assembly shows a drilled hole to drain the vent line. The Department considers this a potential cross-connection. Think about eliminating the drilled hole from the air vacuum release valve design.
24. Appendix K, Construction Standards, Section 6 Water, hydrostatic test refers to Standard Specification Section 7-09.3(23). Is this a reference to WSDOT standard specification section 7-09.3(23)? Please clarify what this refers to.

North Bend, City of
June 11, 2020
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Improvement Plan

25. Has the City implemented an asset management program, which includes a remaining useful life assessment of major water system facilities? Please note that systems with an asset management program are awarded more points in the ranking process for selecting State Revolving Fund projects to fund. The Capital Improvement Plan (CIP) is a good place to describe the City's asset management program.
26. Please note that Sallal Well 2 now is required to provide disinfection treatment that achieves 4-log virus inactivation before the first customer. They installed 300-lineal feet of main to meet this requirement. Confirm that the MT-4 Sallal Mitigation Intertie project can still be constructed as described in this plan or update the chapter.
27. As mentioned in the plan, the system has considerable distribution system leak rate and the existing system does not meet minimum fire flow requirements. Some project to address critical fire flow deficiencies are not scheduled for completion during this planning period. For example, project D-6 to address inadequate fire flow at the elementary school (400 East 3rd) Node J-58 of the hydraulic analysis (refer to Tables 4-8, 4-10, and 7-2). How was the ranking or prioritization of main replacement projects conducted (material type, age, frequency of leaks, fire flow requirements for example)?
28. Given the limitations in supply and considerable distribution system leak rate of more than 20% throughout most of the last planning period, consider a more aggressive main replacement schedule.
29. We notice that the Mitigation Reservoir, Project reference MT5 is not included in the 10 year CIP schedule. Please explain.

Financial Planning

No comments.

Other Documentation

30. The water system must meet the consumer input process outlined in WAC 246-290-100(8). Please include documentation of a consumer meeting discussing the WSP, prior to DOH approval of the WSP.
31. Prior to DOH approval, the City's governing body must approve and adopt the WSP.
32. Please provide copies of any comments made by adjacent purveyors or other interested parties, along with the City's response to those comments.
33. A signed SEPA Checklist was included with the draft WSP. Provide a SEPA threshold determination with the final WSP submittal.
34. Please have your engineers sign and date the PE stamp page for the final copy submitted to the Department.

North Bend, City of
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Closing

We hope that you have found these comments to be clear, constructive and helpful in the development of your final draft WSP. We ask that you submit the revised WSP on or before **September 12,, 2020**. In order to expedite the review of your revised submittal, please include a cover letter summarizing how each of the above comments was addressed in the revised WSP and where each response is located (i.e., page numbers, Appendices, etc.)

Regulations establishing a schedule of fees for review of planning, engineering, and construction documents have been adopted (WAC 246-290-990). The total cost is **\$3705.00.00**. An itemized invoice for the review of this project has been sent to the primary contact on file for your water system. Please note that this fee covers our current review and one more submittal for this project. If additional submittals are required, then an invoice for additional fees will be included with our final approval letter. Please remit complete payment in the form of a check or money order within thirty days of the date of this letter in the enclosed envelope or mail payment to: WSDOH, Revenue Section, PO Box 1099, Olympia WA 98507-1099.

Thank you again for submitting your revised Water System Plan for our review. If you have any comments or questions concerning our review, please contact me at (253) 395-6771.

Sincerely,



Richard Rodriguez
Regional Planner

Enclosure (invoice)

cc: Jae Hill, King County UTRC
Seattle/King County Health
Ria Berns, WSDOE – NWRO
Russ Porter, P.E., Grey & Osborne, Inc.
Kraig Kramer, Certified Operator, North Bend
Don DeBerg, P.E., City Engineer, North Bend

ecc: Brietta Carter, P.E., DOH



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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SENT VIA EMAIL

May 22, 2020

Mark Rigos
Public Works Director
City of North Bend
920 SE Cedar Falls Way
North Bend, WA 98045
mrigos@northbendwa.gov

**Water System Plan Comment Letter
ADVISORY COMMENT(S) Below**

RE: City of North Bend – Water System Plan, Washington State Department of Health
System ID #60100A Reviewed by Washington State Department of Ecology

Dear Mark Rigos:

Thank you for the opportunity to review the City of North Bend's (North Bend) March 2020 Water System Plan (WSP), received by Ecology on March 18, 2020. Consistent with the Memorandum of Understanding between the Department of Health (DOH) and Department of Ecology (Ecology) regarding joint review and approval of WSPs, this letter is being sent to your office with Ecology's comments. Specific elements of Ecology's WSP review included the Water Rights Self-Assessment (Appendix E) of North Bend's Water System as well as additional water rights documentation, including the water right files themselves and North Bend's previous WSPs and project reports.

Ecology identified several issues when reviewing the WSP and supplemental documentation. Please see our ADVISORY COMMENTS below.

ADVISORY COMMENTS

Expected Future Mitigation Demand to Exceed Existing Mitigation Capacity

North Bend's two water rights, the certificate for Mt. Si Springs (S1-00260C) and the permit for the Centennial Well (G1-26617(A)P), combined, have authorized instantaneous and annual quantities that are above the City's current production, meaning the City seemingly has capacity for growth. This characterization does not wholly capture the actual limits of the City's water

rights, which are interruptible and tied to the availability of mitigation water. The City actively mitigates its withdrawals from the Centennial Well with water from a facility at Hobo Springs that is purchased from the City of Seattle. However, based on forecasts that Golder Associates produced for North Bend and discussed in the Executive Summary for the draft “City of North Bend Water Supply and Mitigation Forecast” (included in Appendix F of the WSP), **it appears that North Bend could exceed its available mitigation capacity within the next 5 years.**

This forecast highlights that North Bend needs to acquire additional sources of mitigation or modify current system management in order to continue to grow while remaining compliant with permit G1-26617(A)P. Additionally, the Report of Examination (ROE) for water right permit **G1-26617(A)P requires that North Bend reach an agreement with Sallal Water System to obtain water for backup/additional mitigation and install infrastructure to make that water available when required for mitigation. Until North Bend secures this secondary mitigation source, or an alternative secondary mitigation source, there is vulnerability for the City in its continued reliance on this permit.** In the 13 years since the ROE was issued, North Bend and Sallal have not reached an agreement. At this time, North Bend has no other approved secondary mitigation sources. Ecology recognizes that North Bend intends to reach an agreement with Sallal within the next two years, as described in the WSP Executive summary, and this planned source of mitigation water is included in the WSP’s Capital Improvement Plan. While North Bend has continued to work towards developing a more resilient water system, including increased transparency and operational changes, **Ecology emphasizes that this agreement, along with other potential sources of mitigation water, is essential for North Bend’s ability to accommodate near-term future growth.**

If North Bend does not secure additional mitigation sources within the next five years, North Bend runs the risk of non-compliance with G1-26617(A)P and may exceed its capacity to serve future growth. **To address these mitigation shortfalls, North Bend should take clear and measured steps in the short term to build mitigation capacity or plan to curtail growth.**

Missing and Incorrect Information on Water Right Self-Assessment

In the water rights documentation presented on the Water Rights Self-Assessment (Appendix E), Ecology identified the following missing or incorrect information:

1. North Bend does not identify the limitations of S1-00620C and G1-26617(A)P, as required by the form, although these are identified elsewhere in the WSP. Specifically:
 - A. S1-00620C is subject to a 3.0 cubic-feet-per-second (CFS) bypass flow at the diversion, to be maintained at all times, as described in the ROE.
 - B. G1-26617(A)P is subject to WAC 173-507 and may only be used when mitigated, as described in the ROE and permit.
2. The Water Right Permit and Certificate numbers appear to be switched with Water Facilities Inventory source numbers.
3. S1-28050 is not a change application. S1-28050 is an application for a new water right.

City of North Bend
Water System Plan Comment Letter
May 22, 2020
Page 3

Cascade Golf Course Water Right

North Bend describes the 2018 purchase of the Cascade Golf Course water right and North Bend's intent to add and use the water right as a mitigation source in Chapters 1, 3, and 7 of the WSP. Ecology has not yet received or processed an application to change the purpose of this water right from irrigation to mitigation. To memorialize this acquired water right as an additional mitigation source, Ecology encourages North Bend to expeditiously move forward with the water right change application process.

Additionally, Ecology observed an abandoned well on the site of the former Cascade Golf Course during a site visit in 2018, before North Bend purchased the golf course and appurtenant water right, G1-00142C. Ecology's well log records do not indicate that this well was ever decommissioned, as required by WAC 173-160-381. If this well is not yet decommissioned, the work should be completed in a timely manner and Ecology will require decommissioning as part of any authorization to change G1-00142C.

Water Shortage Response Plan

The city needs to complete its water shortage response plan, as required by WAC 246-290-420. Ecology notes that compliance with WAC 246-290 is an explicit provision in permit G1-26617(A)P. The need for this plan is discussed in Chapters 3 and 6, but a plan is not presented in the WSP. The documents provided in Appendix M do not include a plan to address mitigation capacity issues. While there is no formal decision Ecology can make regarding this specific plan, Ecology requests to review it prior to finalization and is willing to offer technical assistance.

Typographic Error in Chapter 3 – Facility Analysis, Page 3-18

The Mt. Si Springs water right, S1-00620C, requires that a 3.0 CFS bypass flow must be maintained at all times, not 30 CFS as written in the WSP.

GENERAL INFORMATION

Water Right Summary

North Bend's water rights portfolio consists of ADDITIVE WATER RIGHTS S1-00620C and G1-26617(A)P.

In addition to the ADVISORY COMMENTS provided earlier in this letter, please see Table 1 below for a comprehensive list of North Bend's water rights and their respective relationships. Please note that the water rights summarized here AGREE with North Bend's Water Right Self-Assessment (Appendix E) of the WSP.

Table 1. Existing Water Rights

Water Right	Source Name	Additive Qi	Non-Additive Qi	Additive Qa	Non-Additive Qa
S1-00620C	Mt Si Springs/S01	5 CFS (2,250 GPM)	0	336 ac-ft/yr*	0
G1-26617(A)P	Centennial Well/S03	2,646 GPM**	0	3,094 ac-ft/yr**	0
	TOTALS:	4,896 GPM		3,430 ac-ft/yr	

*Quantities reported in acre-feet per year, or ac-ft/yr. Use of S1-00620C is subject to a 3 cfs bypass flow at Mt. Si Springs at all times. This flow is not always met in the summer months. Therefore, North Bend cannot use this water right continuously.

** Fully utilizing the annual and instantaneous quantities associated with G1-26617(A)P requires mitigation from another source. Mitigation availability is a key limiting factor for this permit, in addition to the additive Qi and Qa listed on this permit.

Future Demand

The WSP provides metering records from 2009 – 2019, connection records from 2009 – 2019, and calculations based on this information in Tables 2-1 through 2-10. As of 2019, North Bend served approximately 2,745 connections. Total production (from Table 3-10 of the WSP) was 613 acre-feet. The calculations provided in Table 2-10 indicate that each connection served between 0.8 and 2.9 equivalent residential units or ERUs, depending on the connection type. These calculations in Table 2-10 also show that North Bend served 3,908 ERUs in 2019. The per-ERU water use from 2009 – 2019 was 158 gallons per day, and is shown in Table 2-9. Based on the metering and connection records provided, these calculations are correct.

Projected future demand for North Bend was estimated at 6,451 ERUs by 2040. At 158 gallons per day, the demand would be about 1,150 ac-ft/yr. The future demand projections were provided in Chapter 2 of the WSP, based on growth projections provided in Appendix F of the WSP.

Based on the information provided in the Water Rights Self-Assessment (Appendix E) and in Chapter 2 Appendix of the WSP, dated March 2020, annual capacity DOES NOT appear to be an issue. However, mitigation capacity is anticipated to be an issue, as stated in ADVISORY COMMENTS earlier in this letter.

Distribution System Leakage and Water Conservation Policies

North Bend's water production and delivery records from the last 10 years indicate that more than 10% of water the city produces is lost to leakage, and more than 20% of this water was lost to leakage over the last 3 years. Per WAC 246-290-820, the City is required to develop and implement a water loss action control plan. This plan is provided in Chapter 5 of the WSP.

City of North Bend
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Ecology notes that compliance with WAC 246-290 is an explicit provision in permit G1-26617(A)P. Part 8 of WAC 246-290 pertains to how and when water systems develop water use efficiency programs. Ecology supports North Bend's efforts to comply with state law and the provisions of its water rights.

Service Area

RCW 90.03.386(2) requires that water systems be in compliance with the terms of their WSP and that any alteration of the place of use not be inconsistent with any comprehensive plans or development regulations. An evaluation of any such change should be undertaken if a future expansion of North Bend's water system service area is planned.

Sincerely,



Kellie Gillingham
Water Master
Water Resources Program

ecc: Richard Rodriguez, Department of Health
Russell L. Porter, PE, Gray and Osborne, Inc.
Ria Berns, Department of Ecology



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DEPARTMENT OF ECOLOGY

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SENT VIA EMAIL

July 20, 2020

Mayor Rob McFarland
City of North Bend
920 SE Cedar Falls Way
P.O. Box 896
North Bend, WA 98045

RE: Information on the Status of the City of North Bend's Water Right Permit and Sallal
Water Association's Water Right as a Source for Mitigation

Dear Mayor McFarland:

This letter responds to a question posed in your June 1, 2020 letter. In that letter, you sought clarification from the Department of Ecology (Ecology) regarding a sentence in a previous April 10, 2020 letter I sent, which characterized the provisions in G1-26617(A) as including, "the requirement to secure a secondary mitigation source through agreement with Sallal."

Through this letter, Ecology is clarifying its interpretation of the provisions and requirements of Water Right Permit G1-26617(A) and its Report of Examination (ROE), as they relate to securing mitigation water from Sallal Water Association (Sallal). It is Ecology's interpretation that securing a secondary mitigation source through agreement with Sallal **is not a requirement of this permit**. The City of North Bend's permit requires that the City mitigate for its Centennial Well withdrawals when instream flows on the Snoqualmie River are not met. So long as the City continues to meet this mitigation requirement through its primary source at Hobo Springs, the City is in compliance with its permit. While Sallal wells are an authorized mitigation source, the Permit does not compel the City to reach agreement with Sallal, nor does it condition permit compliance on securing Sallal as a secondary mitigation source.

Ecology continues to be concerned about the City's ability to meet growth demand without additional mitigation sources. Thus, we urge the City to proactively and aggressively seek new mitigation sources to meet the City's near-term projected growth demands and to remain in compliance with the City's water right permit G1-26617(A).

Mayor Rob McFarland

July 20, 2020

Page 2

I look forward to ongoing discussions with you and City staff on any permit management questions. If you have any follow-up questions related to information shared in this letter, please contact me at ria.berns@ecy.wa.gov or by phone at (425) 495-3917.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Berns', followed by a horizontal flourish.

Ria Berns

Section Manager

Water Resources Program

ecc: Bob James, Department of Health, Office of Drinking Water
Jae Hill, King County, Utilities Technical Review Committee
Ted Stonebridge, Sallal Water Association

July 29, 2020

Ms. Kellie Gillingham
Water Resources Program
Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, Washington 98008-5452

SUBJECT: RESPONSES TO COMMENTS, WATER SYSTEM PLAN
CITY OF NORTH BEND, KING COUNTY, WASHINGTON
G&O #19473.00

Dear Ms. Gillingham:

Thank you for your comments regarding the City of North Bend (City) Water System Plan (WSP) provided via email on May 22, 2020. In order to more easily respond to the comments, we have placed the original comments in italics, followed by our responses below.

ADVISORY COMMENTS

Expected Future Mitigation Demand to Exceed Existing Mitigation Capacity

*North Bend's two water rights, the certificate for Mt. Si Springs (S1-00260C) and the permit for the Centennial Well (G1-26617(A)P), combined, have authorized instantaneous and annual quantities that are above the City's current production, meaning the City seemingly has capacity for growth. This characterization does not wholly capture the actual limits of the City's water rights, which are interruptible and tied to the availability of mitigation water. The City actively mitigates its withdrawals from the Centennial Well with water from a facility at Hobo Springs that is purchased from the City of Seattle. However, based on forecasts that Golder Associates produced for North Bend and discussed in the Executive Summary for the draft "City of North Bend Water Supply and Mitigation Forecast" (included in Appendix F of the WSP), **it appears that North Bend could exceed its available mitigation capacity within the next 5 years.***

This forecast highlights that North Bend needs to acquire additional sources of mitigation or modify current system management in order to continue to grow while

Ms. Kellie Gillingham
 July 29, 2020
 Page 2

*remaining compliant with permit G1-26617(A)P. Additionally, the Report of Examination (ROE) for water right permit **G1-26617(A)P requires that North Bend reach an agreement with Sallal Water System to obtain water for backup/additional mitigation and install infrastructure to make that water available when required for mitigation. Until North Bend secures this secondary mitigation source, or an alternative secondary mitigation source, there is vulnerability for the City in its continued reliance on this permit.** In the 13 years since the ROE was issued, North Bend and Sallal have not reached an agreement. At this time, North Bend has no other approved secondary mitigation sources. Ecology recognizes that North Bend intends to reach an agreement with Sallal within the next two years, as described in the WSP Executive summary, and this planned source of mitigation water is included in the WSP's Capital Improvement Plan. While North Bend has continued to work towards developing a more resilient water system, including increased transparency and operational changes, **Ecology emphasizes that this agreement, along with other potential sources of mitigation water, is essential for North Bend's ability to accommodate near-term future growth.***

*If North Bend does not secure additional mitigation sources within the next five years, North Bend runs the risk of non-compliance with G1-26617(A)P and may exceed its capacity to serve future growth. **To address these mitigation shortfalls, North Bend should take clear and measured steps in the short term to build mitigation capacity or plan to curtail growth.***

The City shares Ecology's concerns regarding possible mitigation shortfalls. The forecasts by Golder and Associates provided in Appendix F and the conclusion in Chapter 3 of the March 2020 Draft WSP both indicate that action must be taken to address both the City's supply and demand for mitigation water. The City is committed to addressing this through three measures:

1. Control and lower distribution system leakage through targeted capital improvement projects that replace aging asbestos-concrete mains and other suspected leaking pipes. This will reduce the overall water production and the mitigation requirements associated with well withdrawal in the summer and fall.
2. Decrease the magnitude of maximum day water demand during periods of low mitigation capacity. The June 2020 adoption of City Ordinance 1723 and the Water Shortage Plan by the City Council gives the City the ability to impose and enforce conservation measures during times of water shortage. Three tiers have been identified based on the elevation of the masonry pool which is hydraulically connected to the City's mitigation

Ms. Kellie Gillingham
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Page 3

source, Hobo Springs. The Ordinance and Water Shortage Plan can be found in Appendix R.

3. Increase and diversify the number of mitigation sources and overall capacity. The City has created a Mitigation Capacity Action Plan which will be executed either in tandem or in lieu of a wholesale water agreement with Sallal. While the City looks forward to continuing negotiations with Sallal on an acceptable water supply agreement, Ecology has confirmed by letter dated July 20, 2020:

*It is Ecology's interpretation that securing a secondary mitigation source through agreement with Sallal **is not a requirement of this permit** [emphasis in original]. The City of North Bend's permit requires that the City mitigate for its Centennial Well withdrawals when instream flows on the Snoqualmie River are not met. So long as the City continues to meet this mitigation requirement through its primary source at Hobo Springs, the City is in compliance with its permit. While Sallal wells are an authorized mitigation source, the Permit does not compel the City to reach agreement with Sallal, nor does it condition permit compliance on securing Sallal as a secondary mitigation source.*

The action plan includes the following steps:

- a. The Cascade Golf Course water mitigation system becomes operational in 2021. This project is listed in Chapter 7 of the WSP as Project MT-1. This project will add a second mitigation source, thereby increasing capacity and adding redundancy to the City's mitigation system.
- b. Hobo Springs Improvements will increase mitigation supply by 2022. This project is listed in Chapter 7 of the WSP as Project MT-2. A new catchment basin will capture excess water which currently flows over the existing weir. This project will increase the available mitigation capacity at Hobo Springs.
- c. The City will continue discussions Seattle Public Utilities (SPU) regarding the purchase of additional mitigation water.

Ms. Kellie Gillingham
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- d. Further assessment and refining of the Mitigation Reservoir. This project is listed in Chapter 7 of the WSP as Project MT-5. The City has already funded feasibility studies which have assessed prospective sites for a large 10 MG mitigation reservoir. The City will continue these assessments and refining design. The WSP projects possible construction around 2031.

Missing and Incorrect Information on Water Right Self-Assessment

In the water rights documentation presented on the Water Rights Self-Assessment (Appendix E), Ecology identified the following missing or incorrect information:

1. *North Bend does not identify the limitations of S1-00620C and G1-26617(A)P, as required by the form, although these are identified elsewhere in the WSP. Specifically:*
 - A. *S1-00620C is subject to a 3.0 cubic-feet-per-second (CFS) bypass flow at the diversion, to be maintained at all times, as described in the ROE.*
 - B. *G1-26617(A)P is subject to WAC 173-507 and may only be used when mitigated, as described in the ROE and permit.*
2. *The Water Right Permit and Certificate numbers appear to be switched with Water Facilities Inventory source numbers.*
3. *S1-28050 is not a change application. S1-28050 is an application for a new water right.*

These corrections have been made.

Cascade Golf Course Water Right

If North Bend does not secure additional mitigation sources within the next five years, North Bend runs the risk of non-compliance with G1-26617(A)P and may exceed its capacity to serve future growth. To address these mitigation shortfalls, North Bend should take clear and measured steps in the short term to build mitigation capacity or plan to curtail growth.

Additionally, Ecology observed an abandoned well on the site of the former Cascade Golf Course during a site visit in 2018, before North Bend purchased the golf course and

Ms. Kellie Gillingham
July 29, 2020
Page 5

appurtenant water right, G1-00142C. Ecology's well log records do not indicate that this well was ever decommissioned, as required by WAC 173-160-381. If this well is not yet decommissioned, the work should be completed in a timely manner and Ecology will require decommissioning as part of any authorization to change G1-00142C.

The Mitigation Capacity Action Plan described above will ensure that mitigation capacity is increased in the near term.

The investigation and decommissioning (if necessary) of the abandoned well has been added to CIP Project MT-1 on page 7-3.

Water Shortage Response Plan

The city needs to complete its water shortage response plan, as required by WAC 246-290-420. Ecology notes that compliance with WAC 246-290 is an explicit provision in permit G1-26617(A)P. The need for this plan is discussed in Chapters 3 and 6, but a plan is not presented in the WSP. The documents provided in Appendix M do not include a plan to address mitigation capacity issues. While there is no formal decision Ecology can make regarding this specific plan, Ecology requests to review it prior to finalization and is willing to offer technical assistance.

The North Bend City Council passed Ordinance 1723 and adopted the Water Shortage Plan. Both the ordinance and the plan can be found in Appendix R of the WSP.

Typographic Error in Chapter 3 – Facility Analysis, Page 3-18

The Mt. Si Springs water right, S1-00620C, requires that a 3.0 CFS bypass flow must be maintained at all times, not 30 CFS as written in the WSP.

This typographical error has been corrected.

GENERAL INFORMATION

Water Right Summary

North Bend's water rights portfolio consists of ADDITIVE WATER RIGHTS S1-00620C and G1-26617(A)P.

In addition to the ADVISORY COMMENTS provided earlier in this letter, please see Table 1 below for a comprehensive list of North Bend's water rights and their respective relationships.

Ms. Kellie Gillingham
 July 29, 2020
 Page 6

Please note that the water rights summarized here AGREE with North Bend's Water Right Self-Assessment (Appendix E) of the WSP.

Table 1. Existing Water Rights

Water Right	Source Name	Additive Qi	Non-Additive Qi	Additive Qa	Non-Additive Qa
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	TOTALS:	4,896 GPM		3,430 ac-ft/yr	

*Quantities reported in acre-feet per year, or ac-ft/yr. Use of S1-00620C is subject to a 3 cfs bypass flow at Mt. Si Springs at all times. This flow is not always met in the summer months. Therefore, North Bend cannot use this water right continuously.

** Fully utilizing the annual and instantaneous quantities associated with G1-26617(A)P requires mitigation from another source. Mitigation availability is a key limiting factor for this permit, in addition to the additive Qi and Qa listed on this permit.

Noted.

Future Demand

The WSP provides metering records from 2009 – 2019, connection records from 2009 – 2019, and calculations based on this information in Tables 2-1 through 2-10. As of 2019, North Bend served approximately 2,745 connections. Total production (from Table 3-10 of the WSP) was 613 acre-feet. The calculations provided in Table 2-10 indicate that each connection served between 0.8 and 2.9 equivalent residential units or ERUs, depending on the connection type. These calculations in Table 2-10 also show that North Bend served 3,908 ERUs in 2019. The per-ERU water use from 2009 – 2019 was 158 gallons per day, and is shown in Table 2-9. Based on the metering and connection records provided, these calculations are correct.

Projected future demand for North Bend was estimated at 6,451 ERUs by 2040. At 158 gallons per day, the demand would be about 1,150 ac-ft/yr. The future demand projections were provided in Chapter 2 of the WSP, based on growth projections provided in Appendix F of the WSP.

Based on the information provided in the Water Rights Self-Assessment (Appendix E) and in Chapter 2 Appendix of the WSP, dated March 2020, annual capacity DOES NOT

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July 29, 2020
Page 7

appear to be an issue. However, mitigation capacity is anticipated to be an issue, as stated in ADVISORY COMMENTS earlier in this letter.

Noted.

Distribution System Leakage and Water Conservation Policies

North Bend's water production and delivery records from the last 10 years indicate that more than 10% of water the city produces is lost to leakage, and more than 20% of this water was lost to leakage over the last 3 years. Per WAC 246-290-820, the City is required to develop and implement a water loss action control plan. This plan is provided in Chapter 5 of the WSP.

Ecology notes that compliance with WAC 246-290 is an explicit provision in permit GI-26617(A)P. Part 8 of WAC 246-290 pertains to how and when water systems develop water use efficiency programs. Ecology supports North Bend's efforts to comply with state law and the provisions of its water rights.

Noted.

Service Area

RCW 90.03.386(2) requires that water systems be in compliance with the terms of their WSP and that any alteration of the place of use not be inconsistent with any comprehensive plans or development regulations. An evaluation of any such change should be undertaken if a future expansion of North Bend's water system service area is planned.

Noted.

Thank you once again for your review comments. Based on your comments and the comments of other agencies, we have incorporated your comments into the final WSP. Upon your approval of the WSP, we will provide you with a final WSP in hard copy and

Ms. Kellie Gillingham
July 29, 2020
Page 8

electronically for your files. Please contact me if you have any additional questions or concerns.

Sincerely,

GRAY & OSBORNE, INC.



Russell Porter, P.E.

RLP/hh

cc: Mr. Mark Rigos, P.E., Public Works Director, City of North Bend
Mr. Don DeBerg, P.E., City Engineer, City of North Bend
Mr. Kraig Kramer, Certified Operator, City of North Bend
Ms. Ria Berns, Water Resources Manager, Washington State Dept. of Ecology
Mr. Richard Rodriguez, Regional Planner, Washington State Dept. of Health
Mr. Jae Hill, Principal Planner, King County Utilities Technical Review Committee



King County

Utilities Technical Review Committee

Department of Local Services

35030 SE Douglas St #210

Snoqualmie, WA 98065

www.kingcounty.gov

North Bend Water System Plan Review – Initial Comments

June 30, 2020

Mark Rigos

Public Works Director, City of North Bend

On March 17, 2020, the City of North Bend submitted their draft Water System Plan for review by the King County Utilities Technical Review Committee (UTRC). On June 17, 2020, the UTRC held an open public meeting and deliberated the plan content. Due to the volume of comments and materials received by both the public and the applicants—including during the meeting—the UTRC decided:

- to issue a preliminary comment letter based on the initial submittal materials,
- to close the public comment period on June 24,
- to subsequently review the new materials, and
- to deliberate at a later meeting, and issue a second comment letter, if necessary, on all new submitted items.

This letter is that first comment letter, and a second letter may be forthcoming in July. To obtain the UTRC's "recommendation of adequacy" to the King County Council—the final approving authority of Comprehensive Water and Sewer System Plans, per King County Code 13.24—the Committee respectfully requests that you satisfactorily address the following items:

CONTENT EDITS

1. Appendix I (Water Reclamation Evaluation Checklist) claims that "any use of reclaimed water for purposes other than river augmentation would negatively impact the city's ability to provide mitigation water." Has the district considered the use of reclaimed water—for irrigation customers, for example—to reduce demands on the Centennial production well and thereby reduce the need for mitigation water?
2. The Plan does not address salmon recovery impacts. Please address how pumping regimes, mitigation flows, and other operations beneficially or negatively impact salmon recovery.
3. The Plan states that the City only has a duty-to-serve within 200 feet of existing mains. Please describe the process for coordinating water supply (i.e., wells) with applicants who will not be served if outside of this radius. This could include a requirement for a certificate of future connection or other measures.
4. The City has an expired franchise with King County that lapsed on 11/28/98. Please indicate that North Bend will be applying for a franchise, and any general expected terms.
5. Revisions to the Plan shall include details on successful compliance with Ecology's conditions of approval for the Centennial Well water right, and addressing Ecology's concerns in their May 22,

2020 letter. If alternative mitigation sources are preferred over the use of Sallal as a source, please indicate an action plan, as opposed to simply a list of potential sources.

TYPOGRAPHICAL EDITS

1. Middle of page 1-4, typo reads "agreement with Salla" instead of "Sallal"
2. Table 2-9 has ERU in GPM instead of GPD.

The UTRC thanks you for the opportunity to review and comment.

Regards,



Jae Hill, AICP, CFM
Principal Planner | Chair of the Utilities Technical Review Committee
King County Dept. of Local Services
jhill@kingcounty.gov
o: 206-263-5690

July 29, 2020

Mr. Jae Hill
Principal Planner
Utilities Technical Review Committee
King County Department of Local Services – Permitting
35030 SE Douglas Street, Suite 210
Snoqualmie, Washington 98065-9266

SUBJECT: RESPONSES TO COMMENTS, WATER SYSTEM PLAN
CITY OF NORTH BEND, KING COUNTY, WASHINGTON
G&O #19473.00

Dear Mr. Hill:

Thank you for your comments regarding the City of North Bend (City) Water System Plan (WSP) provided via letter on June 30, 2020. In order to more easily respond to the comments, we have placed the original comments in italics, followed by our responses below.

CONTENT EDITS

1. *Appendix I (Water Reclamation Evaluation Checklist) claims that “any use of reclaimed water for purposes other than river augmentation would negatively impact the city’s ability to provide mitigation water.” Has the district considered the use of reclaimed water—for irrigation customers, for example—to reduce demands on the Centennial production well and thereby reduce the need for mitigation water?*

The City receives credit per the ROE for mitigation resulting from wastewater treatment plant (WWTP) effluent flows to the Snoqualmie River. Though the use of reclaimed water as irrigation water may result in a slight decrease in water demand, it would decrease effluent leaving the WWTP and directly increase the mitigation water required, thereby increasing strain on the City’s mitigation capacity.

Mr. Jae Hill
 July 29, 2020
 Page 2

2. *The Plan does not address salmon recovery impacts. Please address how pumping regimes, mitigation flows, and other operations beneficially or negatively impact salmon recovery.*

The City's Centennial Well source is the only municipal water source in the Upper Snoqualmie Basin that fully mitigates impacts to instream flows whenever the minimum instream flows set by Department of Ecology regulations are not achieved. The operation of this source therefore benefits salmon recovery by providing a fully mitigated source of supply in place of other available water sources that are not mitigated and would have impacts on water quantity and temperature when utilized during low-flow periods.

Additionally, the mitigation water, which coming from Hobo Springs, is both high quality (having been filtered through the hillside) and lower temperature. Both characteristics are beneficial to salmon.

3. *The Plan states that the City only has a duty-to-serve within 200 feet of existing mains. Please describe the process for coordinating water supply (i.e., wells) with applicants who will not be served if outside of this radius. This could include a requirement for a certificate of future connection or other measures.*

If a user is more than 200 feet away from an existing water main, the City issues a Water Availability Certificate allowing a private exempt well.

4. *The City has an expired franchise with King County that lapsed on 11/28/98. Please indicate that North Bend will be applying for a franchise, and any general expected terms.*

The City intends to pursue reactivation of the Franchise Agreement.

5. *Revisions to the Plan shall include details on successful compliance with Ecology's conditions of approval for the Centennial Well water right, and addressing Ecology's concerns in their May 22, 2020 letter. If alternative mitigation sources are preferred over the use of Sallal as a source, please indicate an action plan, as opposed to simply a list of potential sources.*

Ecology's comments provided in the letter dated May 22, 2020, have been addressed. The response letter can be found in Appendix U. At this point, alternative mitigation sources are being pursued in lieu of or to

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 July 29, 2020
 Page 3

supplement a potential wholesale agreement with Sallal. The following Action Plan is proposed:

- a. The Cascade Golf Course water mitigation system becomes operational in 2021. This project is listed in Chapter 7 of the WSP as Project MT-1. This project will add a second mitigation source, thereby increasing capacity and adding redundancy to the City's mitigation system.
- b. Hobo Springs Improvements will increase mitigation supply by 2022. This project is listed in Chapter 7 of the WSP as Project MT-2. A new catchment basin will capture excess water which currently flows over the existing weir. This project will increase the available mitigation capacity at Hobo Springs.
- c. The City will begin discussions Seattle Public Utilities (SPU) regarding the purchase of additional mitigation water.
- d. Further assessment and refining of the mitigation reservoir. This project is listed in Chapter 7 of the WSP as Project MT-5. The City has already funded feasibility studies which have assessed prospective sites for a large 10 MG mitigation reservoir. The City will continue these assessments and refining design, but such a project will likely be largely grant funded. The WSP projects possible construction around 2031.

TYPOGRAPHICAL EDITS

1. *Middle of page 1-4, typo reads "agreement with Salla" instead of "Sallal."*
2. *Table 2-9 has ERU in GPM instead of GPD.*

These typographical errors have been corrected.

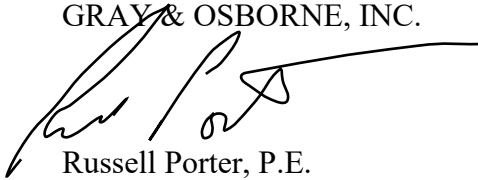
Thank you once again for your review comments. Based on your comments and the comments of other agencies, we have incorporated your comments into the final WSP. Upon your approval of the WSP, we will provide you with a final WSP in hard copy and

Mr. Jae Hill
July 29, 2020
Page 4

electronically for your files. Please contact me if you have any additional questions or concerns.

Sincerely,

GRAY & OSBORNE, INC.



Russell Porter, P.E.

RLP/hh

cc: Mr. Mark Rigos, P.E., Public Works Director, City of North Bend
Mr. Don DeBerg, P.E., City Engineer, City of North Bend
Mr. Kraig Kramer, Certified Operator, City of North Bend
Ms. Ria Berns, Water Resources Manager, Washington State Dept. of Ecology
Mr. Richard Rodriguez, Regional Planner, Washington State Dept. of Health
Ms. Kellie Gillingham, Water Resources Program, Washington State Dept. of Ecology



August 13, 2020

Mr. Jae Hill
Principal Planner
Utilities Technical Review Committee
King County Department of Local Services – Permitting
35030 SE Douglas Street, Suite 210
Snoqualmie, Washington 98065-9266

SUBJECT: RESPONSES TO COMMENTS, WATER SYSTEM PLAN
CITY OF NORTH BEND, KING COUNTY, WASHINGTON
G&O #19473.00

Dear Mr. Hill:

Thank you for your comments regarding the City of North Bend (City) Water System Plan (WSP) provided via letter on August 3, 2020. In order to more easily respond to the comments, we have placed the original comments in italics followed by our responses below.

CONTENT EDITS

1. *Wellhead Protection Plan*
 - a. *Chapter 3.0 “Wellhead Protection Area Delineation” mentions the City’s zoning and land use controls, but most of the CARA is in the unincorporated county. Please address any desired source protection strategies specifically related to land use controls in the unincorporated area CARAs, if any.*

Golder Response: Section 3.2 has been edited to state that, where possible, similar source protection strategies will be utilized for portions of the WHPAs that are in unincorporated King County.
 - b. *Chapter 6.0 “Wellhead Protection Measures” only references North Bend City Codes with regards to the CARAs. Please provide*



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August 13, 2020
Page 2

references to King County Code Title 21A et seq. if you're interested in CARA protections outside of City Limits.

Golder Response: The text was revised to include reference to the King County code.

- c. *On Figure 6 (pg. 43) please indicate the Urban Growth Area boundary on the map.*

Golder Response: The figure has been revised.

- d. *On Figure 8 (pg. 45) please display all of the zoning in the unincorporated county, or explain why such zoning districts are not included. Please note that RA-5 and RA-10 zoning districts have primarily residential uses, but may contain businesses and other facilities which may be impacted by CARA regulation.*

Golder Response: The figure has been revised.

2. *The UTRC has serious concerns about the Plan's duration and—in light of the recent appeal of the Puget Western property—the combined impacts on water supply in the area. Given the five-year upper bound on available mitigation water for the Centennial Well in the Golder Report, and given the lack of agreement with Sallal for mitigation water provision as detailed in Chapter 7 et seq., the UTRC cannot recommend approval of a plan with a greater duration than five years at this time. You may thusly choose one of three options:*

- a. *Request approval of an "interim plan" with a five-year approval horizon and a commitment to have a new plan approved within that five-year timeframe; or,*
- b. *Provide a detailed capital plan for the provision of mitigation water from sources other than Sallal with a minimum of ten years of suitable supply; or*
- c. *Provide an executed agreement with Sallal indicating suitable mitigation supply for the ten-year duration.*

The City has selected Option A and seeks 5-year approval of the 2020 Water System Plan.



Mr. Jae Hill
August 13, 2020
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Thank you once again for your review comments. Based on your comments and the comments of other agencies, we have incorporated your comments into the final WSP. Upon your approval of the WSP, we will provide you with a final WSP in hard copy and electronically for your files. Please contact me if you have any additional questions or concerns.

Sincerely,

GRAY & OSBORNE, INC.



Russell Porter, P.E.

RLP/hh

cc: Mr. Mark Rigos, P.E., Public Works Director, City of North Bend
Mr. Don DeBerg, P.E., City Engineer, City of North Bend
Mr. Kraig Kramer, Certified Operator, City of North Bend
Ms. Ria Berns, Water Resources Manager, Washington State Dept. of Ecology
Ms. Kellie Gillingham, Water Resources Program, Washington State Dept. of Ecology
Mr. Richard Rodriguez, Regional Planner, Washington State Dept. of Health



August 13, 2020

Mr. Richard Rodriguez
Regional Planner
Washington State Department of Health
Northwest Drinking Water Operations
20425 72nd Avenue South, Building 2, Suite 310
Kent, Washington 98032-2358

SUBJECT: RESPONSES TO COMMENTS, WATER SYSTEM PLAN
CITY OF NORTH BEND, KING COUNTY, WASHINGTON
G&O #19473.00

Dear Mr. Rodriguez:

Thank you for your comments regarding the City of North Bend (City) Water System Plan (WSP) provided via letter on June 11, 2020. In order to more easily respond to the comments, we have placed the original comments in italics followed by our responses below.

DESCRIPTION OF WATER SYSTEM

1. *Provide a determination of local government consistency from the City of North Bend's Planning Department.*

The Consistency Statement from the City of North Bend's Planning Department can be found in Appendix D.

2. *King County Utilities Technical Review Committee will review your WSP. Please respond to their issues. Adequate responses to their issues will be necessary in order to receive a WSP Adoption Ordinance from King County.*

Responses to the King County Utilities Technical Review Committee's (UTRC's) comments provided on June 30 and August 13, 2020, can be found in Appendix U. The City has opted to receive 5-year approval from the UTRC.



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3. *Is the Cedar River Partners' property in the City's Retail Service Area and/or its Wholesale Service Area? Are the water demands for this project included in the City's demand forecast? Is Sallal's service area included in the City's Wholesale Service Area?*

The Cedar River Partners property would be in the City's Retail Service Area (RSA). Water demands for this development were included in the projected demand forecasts.

Sallal's service area is included in the City's Wholesale Service Area (WSA), as shown on Figure 1-5, pending the ratification of the Wholesale Water Agreement. The intent would be to only supply, at most, the water demand for the portion of the Sallal RSA that falls within the City's UGA.

BASIC PLANNING DATA

4. *Consider including in this chapter or in an appendix, a description of and graphics showing the historical seasonal variation in mitigation volume required.*

Graphics and a summary table of historical mitigation and production volumes have been added to Appendix E. These show seasonal variations for 2009 through 2017.

5. *The WSP states that enhanced efforts are needed to address summer peak demands. These would include 1) reduction of summer MDD, 2) reduction in distribution system leakage, 3) the agreement with Sallal, and 4) additional mitigation sources such as Golf Course Well water right. If these efforts do not occur, at what point would the City be prepared to impose a moratorium?*

In the Water Supply and Mitigation Forecast Report dated October 2019, the City's water hydrologist (Golder) calculated the impacts of implementing a water conservation ordinance and reducing DSL (Golder Report). Accordingly, by Resolution 1940, the North Bend City Council directed staff to expeditiously implement a significant DSL program and by Ordinance 1723, the North Bend City Council adopted a water conservation ordinance (WCO). The Golder Report concluded that reducing DSL alone would extend available beneficial use and mitigation water supply until 2054. Separately, the Golder Report concluded that by adoption of the WCO and implementation of the conservation measures



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contained therein, the City has available beneficial and mitigation water until 2040. The forgoing operational and management changes extend water availability without either the Sallal agreement or the Cascade water. Once our water hydrological experts opine that the City does not have sufficient water, the City would be prepared to impose a moratorium. However, that date is not in the near term.

SYSTEM ANALYSIS

6. *I believe the 2009 version of our water system design manual said to design a pump station to provide fire flow plus maximum day demand assuming the largest routinely used pump was out of service. The update in our water system design manual reflects the requirement for system reliability per Chapter 246-293 of the WAC and does not include the word "routinely." This means that in a coordinated water system plan area, the booster pump station serving a closed system must be able to provide fire flow at maximum day demand with the largest pump out of service. In this case, the 2,650 gpm pump of the 710 booster pump station. Please show the system meets this requirement or provide suggested system improvements with updated capital improvement schedule.*

The word "routinely" has been removed from page 3-22 and Table 3-14. Pumping capacities in Table 3-14 have been updated as well. The 710 Booster Station serves an open zone while the 780 Booster Station serves a closed zone. However, fire flow for both the 710 and 780 Zones is supplied by the Forster Woods Reservoir through the 710 Zone piping and hydrants. Page 3-22 of the WSP states that the high-flow pump in the 710 Booster Station exists to provide redundancy.

7. *Table 3-11 Source Pumping Capacity Analysis uses the Mt. Si Springs pump capacity to fill the clearwell (2,000 gpm) and not the pump capacity to the system (1,250 gpm as noted on pages 1-7 and 1-9). Source capacity is also used to determine the time it takes to replenish fire suppression storage (refer to Tables 3-1 and 3-2). Does the system meet the city and Water System Design Manual source requirements and resiliency recommendations where 1,250 gpm is used for Mt. Si Springs source? Please explain why it makes sense to use the pump capacity to the clearwell and not the system.*

A recent pump test was performed at the Mount Si Springs source on July 13, 2020, in order to confirm transmission capacity limitations. The



Mr. Richard Rodriguez
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pump capacity limit was determined to be 1,500 gpm. Table 3-11 has been updated to reflect this capacity limitation. The transmission mains which contribute to the limitation are addressed by upsizing the existing water main in CIP Projects D-18, D-10, and D-21 which are detailed in Chapter 7.

The system does still meet the Water System Design Manual's source resiliency with the four reliability recommendations in Section 3.10.5 as outlined below:

- (1) The City has two sources available.
- (2) The City's sources can replenish fire suppression storage within 72 hours, allowing for 24 hours pumping, while concurrently supplying MDD to the system. In fact, the Centennial Well is capable of doing so on its own until at least the 10-year planning horizon.
- (3) Sources can meet MDD by pumping for 20 hours or less. Table 3-12 indicated that MDD can be met using only the Centennial Well.
- (4) If the Centennial Well is out of the service, Mount Si Springs is capable of meeting ADD. If Mount Si Springs is out of service, the Centennial Well is capable of meeting ADD. It is very unlikely both sources would be inoperable at the same time.

8. *Chapter 4 Hydraulic Modeling. The hydraulic model should be re-calibrated to verify that the model still accurately reflects the distribution system. Inadvertent valve closures, PRV station changes and pump station operating characteristic can all change. As you are aware the department is allowing ten-year approval periods for qualifying water system plans, this could mean that the hydraulic model will not be verified for nearly 20 years. Provide a schedule for verifying the model calibration.*

The hydraulic model was recalibrated using hydrant testing data from July 13, 2020. The results and discussion of the recalibration can be found on pages 4-3 through 4-5.



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WATER USE EFFICIENCY/WATER RIGHTS

9. *Respond to the issues contained in Department of Ecology's letter dated May 22, 2020 and incorporate those into your WSP.*

The response letter to the Department of Ecology comments dated July 29, 2020, addresses the issues and concerns raised in the letter dated May 22 and highlights the changes made to the WSP. The response letter can be found in Appendix U.

10. *Please provide documentation of the public meeting held to discuss the 2020-2026 Water Use Efficiency Goals for the City.*

The public hearing for Water Use Efficiency Goals will be held on September 1, 2020. Documentation of the hearing will be provided and added to Appendix I.

11. *Has the North Bend Operation and Monitoring Plan referenced in the Centennial well permit documentation been updated since 2007? If not, what is the intention regarding updating this plan? Please include the North Bend Operation and Monitoring Plan (Golder, 2007c), its update, or both.*

The City has not published an updated Operation and Monitoring Plan since the 2007 Golder document. An effort was made to update this plan in 2014; however, that iteration of the document was never finished. The City is aware it needs to update the plan based on the ROE, the latest Wellhead Protection Plan, and after the changes to the Cascade water right are complete. As a result, the City intends to submit an updated document soon after the changes to the Cascade water right are complete. The 2007 plan can now be found in Appendix Q.

SOURCE PROTECTION

12. *A few sources of potential contamination do not appear to be included in the EDR & windshield survey. Please consider other land uses like*



Mr. Richard Rodriguez
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cemeteries, farms, parks, school athletic fields, which can be sources of contamination from chemical application.

These are unlikely to be significant sources of potential contamination, but some discussion can be added to the report, particularly for Well NB-1 in Torgeson Park. (Response by Golder Associates)

13. *It is unusual to combine CFR & modelled delineation methods, please elucidate 1) what the model uncertainties were that are addressed by including the CFR and 2) why the City wants to take an overly conservative approach?*

The approach was selected to be conservative and protective of the resource. Because the groundwater source is shallow and the aquifer is unconfined and highly transmissive, the potential for contamination is high. The groundwater model produced capture zones that extend upgradient and become more elongated with distance but are relatively narrow near the wellheads. The CFR method was added to the modeled delineations for consistency with past methods and to provide additional protections given the nature of the aquifer, not to address any specific model uncertainties beyond those that are intrinsic to numerical groundwater modeling in general. (Response by Golder Associates)

14. *Note that the area identified as “buffer” for the spring source appears to be more appropriately identified as the Critical Aquifer Recharge Area (CARA). Depending on how local codes are written, the “buffer” delineation may not be considered a part of the wellhead protection area (WHPA) or provided the appropriate protections. The spring source is located outside of City limits, the plan should include a discussion of King County’s CARA regulation and any coordination the City has done with the County, Department of Natural Resources and the US Forest Service relating to the protection of the spring source.*

The Mount Si WPHA was modified such that the estimated zone of contribution is part of the WHPA and no longer labelled a “Buffer Zone.” Figure 7 was modified. (Response by Golder Associates)



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15. *The adoption of the WHPA areas should be done as a part of the adoption of the water system plan and not be a recommendation. The recommendations about updating the CARA are appropriate.*

The recommendation to adopt the WHPAs in Section 6.3 was removed and the text was modified as follows “The WHPAs presented in this report should be incorporated into the City’s Water System Plan.”

16. *The Wellhead Protection Plan recommends that the City adopt requirements for secondary containment within WHPA time of travel zones. Does the City intend to implement this and other recommendations in section 6.3? Please discuss.*

The City intends to adopt all recommendations over the next 10 years and will work on creating a schedule to do so.

WATER QUALITY

17. *Please provide the Stage 2 Disinfection Byproduct Monitoring Plan.*

The City’s Stage 2 Disinfection Byproduct Monitoring Plan can be found in Appendix H and is also referenced on page 3-16.

18. *Regarding the Coliform Monitoring Plan (CMP), we have the following comments.*

- a. *Please provide standard operating procedures for coliform routine and repeat sampling in the appendix with the CMP.*

Standard operating procedures have been added and can be found in Section F of the Coliform Monitoring Plan (CMP).

- b. *In Section E, as part of the routine sample schedule, this indicates that X14 (S01 Mt Si Spring) and S17 (S02, Centennial Well) are used as routine sample sites. Only distribution sites are appropriate as routine coliform sample sites. Please update or clarify. The recent coliform sample locations in our database correctly show that the Spring or well are not used as routine sites.*

Sources have been removed from the routine sample list. They remain on the schedule to indicate that they are tested quarterly;



Mr. Richard Rodriguez
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however, they do not count toward the seven required monthly samples.

- c. *Consider adding a coliform sample site in the 780 pressure zone. It appears that there is not a routine sample site in this pressure zone.*

Routine Sample Site X.16 has been added and lies in the 780 Pressure Zone.

- d. *Consider sampling more often each month to keep monitoring more continuous. For example, you may want to sample three times per month (two samples per week for three weeks) or two times per month (three samples each week).*

More frequent testing will be taken into consideration.

- e. *The City's Water Facilities Inventory (WFI) includes 239 non-residential connections (industrial, institutions, commercial) and four recreational services. However, no non-residential population is listed on the WFI. Some students, employees, visitors or other users of these non-residential connections may already be counted as residents of North Bend. While cautioning not to double count, please do provide estimates of consumers who come from outside the North Bend area in each of the WFI non-residential population sections. This additional population may or may not affect the number of routine coliform samples required each month.*

The service area is projected to have a population large enough to warrant seven routine monthly tests by 2020. As a result, the CMP has now been updated to include seven routine samples.

- f. *Please consider when the Sallal emergency intertie may be in use. If North Bend incurs a positive bacteriological sample in its distribution system and the Sallal intertie is in use, North Bend*



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must contact Sallal for Sallal to sample any of their groundwater wells that were in use.

The standard operating procedures (Section F) and the E. coli Response Plan of the CMP now give clear instructions for when positive tests coincide with intertie use.

OPERATION AND MAINTENANCE

19. *Has the City completed the "Water Shortage Response Plan"? We typically see this plan as part of the emergency response plan. Given the history of the City not meeting the system demand (to include mitigation demand), planning for water shortage seems especially important. This response plan should identify the drought of record and what measures the City and community will execute to minimize demand.*

The City's Water Shortage Plan has been completed and can be found in Appendix R.

20. *Please add to the record keeping section of this chapter, the water main distribution system project construction completion reports. Please discuss the City's customer complaint program.*

Construction completion reports have been added to the record keeping section on page 6-21 and a discussion of the City's customer complaint program has been added to page 6-20.

21. *Consider updating the cross-connection control (CCC) program manual. At a minimum, add a revision date to the CCC manual.*
- a. *Page 4 of the CCC manual refers to the authority given by Municipal Code 13.28. Codification of Ordinance No. 391 was updated from 13.38 to 13.16.*
 - b. *The CCC program I manual must include procedures for responding to backflow incidents.*
 - c. *Reference to AWWA PNWS CCC manual is great. Consider adding Table 9 hazards from WAC 246-290-490 to highlight the minimum required protection for high hazard connections. For*





Mr. Richard Rodriguez
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example, wastewater treatment plants require RPBA and air gap. This is not a recommendation as the AWWA reference suggests.

The City will commit to updating its Cross-Connection Control Program Manual by June 2021.

DISTRIBUTION FACILITIES DESIGN AND CONSTRUCTION STANDARDS

22. *A complete up-to-date set of water distribution standard details and specifications must be submitted and reviewed if seeking project submittal exception to DOH for distribution main projects under WAC 246-290-125(2). Appendix K, Construction Standards, Section 6 WATER, 6.01 General Requirements refers to the standards applying within city limits. The city must provide construction standards for the city water system, both in and out of city limits, to meet the criteria for the submittal exception. Please make it clear that this set of water distribution standard details and specifications applies to projects inside and outside of city limits, clearly describe identify where these deviate if needed, or provide a set for projects outside of city limits.*

Section 6.01 A of the City's Public Work's Standards has been amended to read as follows:

“Although these standards are intended to apply to physical development within the City retail service area (both within City limits and in unincorporated King County), the Standards will not apply for all situations.”

23. *The Standard Detail No. W-16 Air Vacuum Release Valve Assembly shows a drilled hole to drain the vent line. The Department considers this a potential cross-connection. Think about eliminating the drilled hole from the air vacuum release valve design.*

The pipe length leading to the cap and drilled hole have been eliminated. See Detail W-16.

24. *Appendix K, Construction Standards, Section 6 Water, hydrostatic test refers to Standard Specification Section 7-09.3(23). Is this a reference to*



Mr. Richard Rodriguez
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WSDOT standard specification section 7-09.3(23)? Please clarify what this refers to.

This is a reference to the WSDOT Standard Specification 7-09.3(23). The text on page 6-29 of the Public Works Standards has been clarified.

IMPROVEMENT PLAN

25. *Has the City implemented an asset management program, which includes a remaining useful life assessment of major water system facilities? Please note that systems with an asset management program are awarded more points in the ranking process for selecting State Revolving Fund projects to fund. The Capital Improvement Plan (CIP) is a good place to describe the City's asset management program.*

The City has not implemented a formalized Asset Management Program. In recent years, such a program has been evaluated. The City will consider the implementation of an Asset Management Program in the near future.

26. *Please note that Sallal Well 2 now is required to provide disinfection treatment that achieves 4-log virus inactivation before the first customer. They installed 300-lineal feet of main to meet this requirement. Confirm that the MT-4 Sallal Mitigation Intertie project can still be constructed as described in this plan or update the chapter.*

Yes, the project costs include running 400 feet of new waterline connecting the existing intertie to Sallal's Well 2.

27. *As mentioned in the plan, the system has considerable distribution system leak rate and the existing system does not meet minimum fireflow requirements. Some project to address critical fire flow deficiencies not scheduled for completion during this planning period. For example, project D-6 to address inadequate fire flow at the elementary school (400 East 3rd) Node J-58 of the hydraulic analysis (refer to Tables 4-8, 4-10, and 7-2). How was the ranking or prioritization of main replacement projects conducted (material type, age, frequency of leaks, fire flow requirements for example)?*

See the discussion following Comment 29.



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28. *Given the limitations in supply and considerable distribution system leak rate of more than 20% throughout most of the last planning period, consider a more aggressive main replacement schedule.*

See the discussion following Comment 29.

29. *We notice that the Mitigation Reservoir, Project reference MT5 is not included in the 10 year CIP schedule. Please explain.*

Three major priorities of the City's CIP schedule include: (1) upsizing pipes in order to improve fire flow, (2) replacing AC piping in order to address high DSL, and (3) increasing the City's mitigation capacities through various infrastructure projects. The CIP schedule in the draft WSP was reached after many iterations of balancing these three priorities along with other system maintenance projects and available funding. As discussed in the financial chapter, the City plans to increase revenue by increasing rates by 6 percent in 2021, 2024, and 2027 and by 3 percent all other years.

In response to Comment 27, in an effort to tackle DSL and fire flow simultaneously, fire flow projects were given priority if the pipe being replaced was made of AC. This is why Project D-6 had been pushed back to 2031. However, due to the proximity of the elementary school, Project D-6 has been reprioritized and is now scheduled to occur in 2027.

In response to Comment 28, the AC main replacement program is meant to augment the AC main replacement which will occur in tandem with the previously described fire flow improvement projects. Additionally, 2,750 linear feet of AC main is scheduled to be replaced as part of Project D-21 in 2025 and 2026. The City would have a more aggressive AC replacement schedule; however, the overall CIP schedule has prioritization and funding restraints described above. The City will commit to using the AC main replacement program to coordinate with planned transportation and sewer projects in order to accelerate and more efficiently replace these AC mains.

In response to Comment 29, the Mitigation Reservoir (Project MT-5) is not included in the 10-year planning period for two reasons. The first is cost, as the preliminary construction cost of \$12 million is too high to include in the 10-year schedule. The City does still want to show that work has been put toward the feasibility of this project and to keep it in



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the 10- to 20-year planning horizon. Second, the City has given high priority to three other mitigation projects all occurring between 2020 and 2025 which will increase mitigation capacity.

FINANCIAL PLANNING

No comments.

OTHER DOCUMENTATION

30. *The water system must meet the consumer input process outlined in WAC 246-290-100(8). Please include documentation of a consumer meeting discussing the WSP, prior to DOH approval of the WSP.*

Documentation of the consumer WSP meeting which occurred on August 4, 2020, can be found in Appendix I.

31. *Prior to DOH approval, the City's governing body must approve and adopt the WSP.*

The WSP was adopted by the City Council on August 4, 2020. Documentation can be found in Appendix U.

32. *Please provide copies of any comments made by adjacent purveyors or other interested parties, along with the City's response to those comments.*

Comments from adjacent purveyors can be found in Appendix U.

33. *A signed SEPA Checklist was included with the draft WSP. Provide a SEPA threshold determination with the final WSP submittal.*

A signed SEPA Checklist and SEPA Threshold Determination can be found in Appendix T.

34. *Please have your engineers sign and date the PE stamp page for the final copy submitted to the Department.*

The latest copy of the WSP has been stamped, signed, and dated.

Thank you, once again, for your review comments. Based on your comments and the comments of other agencies, we have incorporated your comments into the final WSP.





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Upon your approval of the WSP, we will provide you with a final WSP in hard copy and electronically for your files. Please contact me if you have any additional questions or concerns.

Sincerely,

GRAY & OSBORNE, INC.

A handwritten signature in black ink, appearing to read 'Russell Porter', is written over a light gray rectangular background.

Russell Porter, P.E.

RLP/hh

cc: Mr. Mark Rigos, P.E., Public Works Director, City of North Bend
Mr. Don DeBerg, P.E., City Engineer, City of North Bend
Mr. Kraig Kramer, Certified Operator, City of North Bend
Ms. Ria Berns, Water Resources Manager, Washington State Dept. of Ecology
Ms. Kellie Gillingham, Water Resources Program, Washington State Dept. of Ecology
Mr. Jae Hill, Principal Planner, King County Utilities Technical Review Committee

