



## King County

### Transportation, Economy and Environment Committee

#### STAFF REPORT

<b>Agenda Item:</b>	4	<b>Name:</b>	Mike Reed
<b>Proposed No.:</b>	2012-0065	<b>Date:</b>	February 29, 2012

#### SUBJECT

Proposed Ordinance 2012-0065 would approve the Sammamish Plateau Water and Sewer District ("District") 2010 Comprehensive Water System Plan ("Plan").

#### SUMMARY

Council approval of water utility comprehensive plans is required by County Code as a prerequisite for operating in unincorporated King County, granting right of way construction permits, granting new or renewed franchises, and service boundary annexations. The Sammamish Plateau Water and Sewer District provides water service on the Sammamish Plateau and the eastern portion of Union Hill.

#### BACKGROUND

##### **King County Utility Comprehensive Plan Criteria**

King County Code Chapter 13.24 requires the Utilities Technical Review Committee ("UTRC") to review and make recommendations to the Executive and County Council on the adequacy of all water system comprehensive plans and related matters, and to determine whether the plan:

- is consistent with local comprehensive plans,
- is consistent with the King County Comprehensive Plan,
- reflects current supply and demand,
- forecasts future supply and demand,
- provides a capital plan for obtaining, using, storing and conveying water and sewage,
- provides sufficient information to demonstrate the utility district's ability to provide service consistent with all applicable laws and regulations.

In addition to satisfying the requirement of King County Code Chapter 13.24, the County's approval of a plan also provides the determination for state regulatory agencies that a plan is consistent with the King County Comprehensive Plan and related policies and implementing development regulations. See RCW 43.20.260.

## **UTRC ANALYSIS OF THE SAMMAMISH PLATEAU WATER AND SEWER DISTRICT 2010 COMPREHENSIVE WATER SYSTEM PLAN**

The UTRC finalized its review of the Plan on October 19, 2011. The UTRC found it to meet the requirements of King County Code chapter 13.24 and recommended its approval. Highlights of the Plan as reviewed by the UTRC are outlined below:

**Service Area** - The District is bounded by Lake Sammamish on the west, the Snoqualmie Valley on the east and approximately NE 90th Street on the north, and I-90 on the South. The area includes the majority of the City of Sammamish and the northern portion of City of Issaquah. The District provides water service in two zones. The Plateau Zone encompasses 24.3 square miles and is south of the Redmond-Fall City Road. The Cascade View Zone is located north of the Plateau Zone and encompasses 4.3 square miles.

**Facilities** - In the Cascade Zone, the District has three wells, two storage tanks and a connection to the regional system. In the Plateau Zone the District has 11 operational wells, six storage facilities and an intertie to obtain water from the regional system.

**Growth** - A 20-year demand forecast was prepared using District data, assumptions of water conservation savings, and population projections developed by the Puget Sound Regional Council. Average daily water demand in the District's service area is projected to increase from about 5.1 million gallons per day ("mgd") in 2009 to 5.8 mgd by 2015, and 7.0 mgd by 2029.

**System Improvements** - The District conducted an analysis of future demand through the use of a hydraulic model, which evaluates current and future water requirements, analyzes current facilities and anticipates the impact of future demand increases. The analysis indicates that existing source and storage facilities are sufficient to meet needs through the 20 year planning period. Some of the District's transmission and distribution systems need to be increased in size or in their ability to meet fire flow requirements and for provision of service to all portions of the service area. Additionally, the District is pursuing an ambitious rehabilitation and replacement program to replace small diameter pipes. The Plan contains a six-year capital improvement plan with costs estimated at approximately \$31.9 million. The District identified three funding sources for the proposed improvement projects: developer extensions, rates, and general facility charges. Rate revenues for 2010 are projected to be \$9.7 million.

**SEPA** - On December 15, 2010, the District issued a Determination of Non-Significance for the Plan in accordance with the State Environmental Policy Act.

## **AMENDMENT**

Subsequent to the transmittal of the 2010 Plan to the UTRC, the District and the Overdale Water Association ("Association") decided to join, with the District annexing the territory currently served by the Association. To update the District's Plan to reflect this addition, an amendment has been prepared by the District to its 2010 Plan, which in turn requires an amendment to the proposed ordinance.

With the annexation, the District's Plan would modify its service area to include the Association service area, which is contained entirely within the boundaries of the District. The Association's service area includes a population of approximately 423 people, less than 1% of the current District population. The District and Association have undertaken necessary annexation efforts and received King County Boundary Review Board approval for the annexation, completing that process.

The District provided an amendment to its 2010 District plan to include the service area of the Overdale Water Association within the District service area, allowing extension of permanent service to the area. This is listed as Attachment B to this staff report. The County's Utilities Technical Review Committee has reviewed the proposed amendment, and has recommended Council approval of the amendment, conditioned the absence of any unresolved SEPA Determination of Nonsignificance comments. As of the end of the comment period, February 24, 2012, no comments were received. Substantively, the Amendment 1 to the Proposed Ordinance approves adding the attachment entitled "2012 Amendment to the 2010 Comprehensive Water System Plan" to the 2010 District Comprehensive Water System Plan. Passage of the proposed ordinance as amended will result in the District's Plan being updated to reflect the annexation of the Association.

## **ATTACHMENTS**

1. Proposed Ordinance 2012-0065, approving the Sammamish Plateau 2010 Comprehensive Water System Plan (document available from the clerk's office)
2. Amendment 1
3. Attachment B: 2012 Amendment to the 2010 Comprehensive Water System Plan

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1                   AN ORDINANCE approving the Sammamish Plateau  
2                   Water and Sewer District 2010 Comprehensive Water  
3                   System Plan, December 2010.

4                   STATEMENT OF FACTS:

- 5                   1. King County has adopted K.C.C. chapter 13.24, which requires  
6                   approval of comprehensive plans for water utilities that distribute or obtain  
7                   water in unincorporated King County as a prerequisite for operating in  
8                   unincorporated King County, receiving approval for annexation proposals,  
9                   being granted right-of-way franchises, and being given approval for right-  
10                  of-way construction permits. K.C.C. 13.24.060 prescribes the  
11                  requirements for approval of such plans, including consistency with state  
12                  and local planning requirements.
- 13                  2. RCW 57.16.010 requires that general comprehensive plans for a water  
14                  district be submitted to, and approved by, the legislative authority within  
15                  whose boundaries all or a portion of the district lies.
- 16                  3. The Sammamish Plateau water and sewer district's last water system  
17                  plan was prepared in 2002. Both Washington state Department of Health  
18                  and King County regulations require water system plans to be updated  
19                  every six years.

20 4. The Sammamish Plateau water and sewer district ("the district") is in  
21 King County and has adopted a 2010 Comprehensive Water System Plan  
22 ("the plan").

23 5. King County has adopted a comprehensive plan that includes water  
24 supply policies in its provisions for facilities and services (policies F-201  
25 through F-244) that call for consistency with other adopted plans, support  
26 for regional water supply planning, pursuit of reclaimed water, water  
27 conservation and protection of water resources.

28 6. K.C.C. chapter 13.24 requires the utilities technical review committee  
29 ("UTRC") to review and make a recommendation to the King County  
30 executive and council on the plan and the requirements under K.C.C.  
31 chapter 13.24 and consistency with the King County Comprehensive Plan.  
32 The UTRC has reviewed the planning data and district operations and  
33 hereby finds:

34 a. The plan uses population and employment forecasts developed by the  
35 Puget Sound Regional Council for the district's service area;

36 b. Portions of the district's service area are in unincorporated King  
37 County;

38 c. The capital facility plan is adequate to meet anticipated facility and  
39 service needs;

40 d. The plan is consistent with applicable Washington state water quality  
41 laws, including the evaluation of reclaimed water use; and

42 e. The plan is consistent with other pertinent county adopted plans and  
43 policies.

44 7. The Washington state Department of Health approval of the district's  
45 plan is pending King County council action.

46 8. Under the state Environmental Policy Act the district issued a  
47 determination of nonsignificance for the issuance of the plan on December  
48 15, 2010, and there were no appeals.

49 9. The district's operations and facilities meet multiple existing statutory,  
50 administrative and planning standards. As the district's operations,  
51 facilities and planning meet the requirements of the K.C.C., and are  
52 consistent with the King County Comprehensive Plan, the UTRC  
53 recommends approval of the plan.

54 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

55 SECTION 1. The Sammamish Plateau Water and Sewer District 2010

56 Comprehensive Water System Plan, December 2010, Attachment A to this ordinance, is  
57 hereby approved as a comprehensive water system plan.  
58

KING COUNTY COUNCIL  
KING COUNTY, WASHINGTON

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Larry Gossett, Chair

ATTEST:

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Anne Noris, Clerk of the Council

APPROVED this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_.

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Dow Constantine, County Executive

**Attachments:** A. 2010 Water Comprehensive Plan--August 2011



2012-0065 ATTACHMENT A  
NOT AVAILABLE  
ELECTRONICALLY



**SAMMAMISH  
PLATEAU**

WATER AND SEWER DISTRICT

**RECEIVED**  
SEP 16 2011

KING COUNTY  
UTILITIES TECHNICAL  
REVIEW COMMITTEE

*Attachment A*

**2012-065**

**Sammamish Plateau  
Water and Sewer District**

# **2010 Water Comprehensive Plan**

**August 2011**

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**1**

February 29, 2012

MR

Sponsor: Phillips

Proposed No.: 2012-0065

1 **AMENDMENT TO PROPOSED ORDINANCE 2012-0065, VERSION 1**

2 Add Attachment B: 2012 Amendment to the 2010 Water Comprehensive Plan

3 **EFFECT: Adds an attachment amending the water system comprehensive plan to**

4 **permanently extend water service to the Overdale Water Association service area.**

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RECEIVED  
FEB 15 2012



**SAMMAMISH  
P L A T E A U**

**WATER AND SEWER DISTRICT**

**2012 AMENDMENT TO THE  
2010 WATER COMPREHENSIVE PLAN**

**February 2012**

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## Certificate of Engineer

Resolution No. XXXX: Adopting this 2012 Plan Amendment

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### EXHIBITS

Exhibit A: Resolution No. 4089 – Adopting 2010 Water Comprehensive Plan	
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**Sammamish Plateau Water and Sewer District  
2012 Amendment to the 2010 Water Comprehensive Plan**

The material and data contained in this report were prepared under the direction and supervision of the undersigned, whose seal as a professional engineer, licensed to practice in the State of Washington, is affixed below.



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Joyce Regenstreif, P.E.  
Planning Engineer  
Sammamish Plateau Water & Sewer District

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**SAMMAMISH PLATEAU WATER & SEWER DISTRICT  
KING COUNTY, WASHINGTON**

**RESOLUTION NO. 4133**

RESOLUTION OF THE BOARD OF COMMISSIONERS OF SAMMAMISH PLATEAU WATER AND SEWER DISTRICT, KING COUNTY, WASHINGTON, ADOPTING THE 2012 AMENDMENT TO THE 2010 WATER COMPREHENSIVE PLAN AND APPROVING THE PLAN FOR PUBLIC DISTRIBUTION IN ACCORDANCE WITH WAC 246-290-100.

**WHEREAS**, the Sammamish Plateau Water and Sewer District ("District") is a municipal corporation providing water and sewer utility services pursuant to Title 57 RCW; and

**WHEREAS**, Chapter 57.16.010 authorizes the District to adopt a general comprehensive water system plan and the District has previously done so by the adoption of the 2010 Comprehensive Water System Plan on December 20, 2010 by Resolution No. 4089 ("2010 Plan"); and

**WHEREAS**, the Overdale Water Association is a Washington non-profit corporation that owns a water system and provides water service as a Class A Water Purveyor (Department of Health ID #87350) to the Overdale Park area ("Overdale Service Area"); and

**WHEREAS**, the District has been providing water supply to the Overdale Water Association through an emergency intertie since 2005, and the 2010 Plan identified that Overdale Water Association was actively pursuing annexation to the District and taking actions that could result in the District providing direct service to the Overdale Service Area; and

**WHEREAS**, the District finalized annexation of an area including the Overdale Service Area by Resolution No. 4017 on May 16, 2011; and

**WHEREAS**, the District Board of Commissioners ("Commissioners") now deems it desirable to adopt the 2012 Amendment to the 2010 Plan dated February 2012 ("the 2012 Plan Amendment") which is incorporated herein in full by this reference; and

**WHEREAS**, the Commissioners have reviewed and considered the proposed 2012 Amendment; and

**WHEREAS**, based on a SEPA checklist prepared regarding the proposed adoption of the 2012 Plan Amendment as a non-project action, a SEPA Determination of Non-Significance ("DNS") was issued by John Krauss, District Manager and District

Resolution No. 4133

Page 1

Responsible SEPA Official, on February 8, 2012, in conformance with the District's SEPA Resolution No. 3209; now, therefore,

**BE IT RESOLVED**, by the Board of Commissioners of Sammamish Plateau Water & Sewer District, King County, Washington, as follows:

1. The 2012 Amendment to the 2010 Water Comprehensive Plan is hereby approved and adopted effective the date set forth below, and is further approved for public distribution in accordance with WAC 246-290-100.
2. The 2012 Amendment to the 2010 Water Comprehensive Plan shall be submitted to the legislative authorities of King County and Issaquah and to appropriate state agencies, including the Washington State Department of Health, for approval by those jurisdictions and agencies as provided by law.

**ADOPTED** by the Board of Commissioners of Sammamish Plateau Water and Sewer District, King County, Washington, at a regular open public meeting held on the 13th day of February 2012.

***Individual Commissioner's  
Vote on this Resolution:***

Approved: \_\_\_\_\_  
Opposed: \_\_\_\_\_  
Abstained: \_\_\_\_\_  
Absent: \_\_\_\_\_

\_\_\_\_\_  
Tom Harman, President and Commissioner

Approved: \_\_\_\_\_  
Opposed: \_\_\_\_\_  
Abstained: \_\_\_\_\_  
Absent: \_\_\_\_\_

\_\_\_\_\_  
Robert Brady, Vice President and Commissioner

Approved: MA  
Opposed: \_\_\_\_\_  
Abstained: \_\_\_\_\_  
Absent: \_\_\_\_\_

Mary Shustov  
\_\_\_\_\_  
Mary Shustov, Secretary and Commissioner

Approved: ✓  
Opposed: \_\_\_\_\_  
Abstained: \_\_\_\_\_  
Absent: \_\_\_\_\_

Lloyd Warren  
\_\_\_\_\_  
Lloyd Warren, Commissioner

Approved: ✓  
Opposed: \_\_\_\_\_  
Abstained: \_\_\_\_\_  
Absent: \_\_\_\_\_

Robert Abbott  
\_\_\_\_\_  
Robert Abbott, Commissioner

Resolution No. 4133

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# **2012 AMENDMENT TO THE SAMMAMISH PLATEAU WATER & SEWER DISTRICT 2010 WATER COMPREHENSIVE PLAN**

## **INTRODUCTION**

This 2012 Water Comprehensive Plan Amendment ("2012 Plan Amendment") is an amendment to the Sammamish Plateau Water & Sewer District ("District") 2010 Water Comprehensive Plan ("2010 Plan") adopted by the District on September 6, 2011 by Resolution 4089 (Exhibit A). The 2010 Plan has been submitted to the Washington State Department of Health, King County Council, City of Sammamish and City of Issaquah. Final agency approval of the 2010 Plan is anticipated during the first quarter of 2012.

This 2012 Plan Amendment has been prepared to formally identify inclusion of the Overdale Water Association service area ("Overdale Service Area") as an area of direct water service provision by the District, and allow provision of full service from the District to the Overdale Service Area. The 2012 Plan Amendment will be submitted to the Department of Health, King County and City of Issaquah following District adoption by resolution, in accordance with WAC 246-290-100. The Cascade Water Alliance ("Cascade") has already approved expansion of the District service area to include the Overdale Service Area.

## **BACKGROUND**

The 2010 Plan was prepared to guide the District into the future, and ensure the continued provision of high-quality water service to customers in the District's water service area. The Retail Water Service Area identified in the 2010 Plan includes

- Area previously annexed into the District for water service,
- Future District water service areas identified through the East King County Regional Water System Plan, as modified by boundary adjustments with adjacent purveyors
- The Overdale Service Area.

Prior to the 2010 Plan, the Overdale Service Area was not included in the District's future service area as the Overdale Water Association, a Class A System Purveyor, had been identified through the East King County Water Association as the long term provider of water service to the Overdale Service Area.

The 2010 Plan Identified the Overdale Service Area as part of the Overdale Annexation area, and noted that the Overdale Water Association was taking actions that could result in the District taking over the Overdale water system and providing direct service. The service change was prompted by the presence of arsenic in the Overdale water supply, at levels exceeding federal standards. Since completion of the 2010 Plan the Overdale Annexation has been completed, and the actions to take over the Overdale Water System have moved forward.

## **Chapter 1: Description of Water System**

The District is a Class A water system (System ID No. 409009) that operates as a municipal corporation under Chapter 57 of the Revised Code of Washington ("RCW"). The District has the responsibility and authority to plan for and provide water service to customers within its corporate and retail service area boundaries, as shown in Figure 1-1, Service Area Boundaries. The Overdale Service Area is located in the Plateau Zone.

This 2012 Plan Amendment does not alter or change the retail service area boundary from the adopted 2010 Plan with respect to the description of the water system. The 2012 Plan Amendment does reflect changes to the corporate boundary which has been expanded to include the completed Redmond Ridge East Panhandle and Overdale Annexations. Figure 1-1 reflects the updated District corporate boundary. Figure 1-2, Annexation Areas, provides an update to the 2010 Plan Figure 1-13.

The Overdale Water System has two primary pressure zones, 625 and 700, and a small 400 pressure zone. The Overdale system includes approximately 2.5 miles of water mains, a 37,000 gallon steel storage tank, 2 wells not currently in operation and 2 booster pump stations, only one of which is currently in operation. Since mid-2005, the Overdale Water System has been supplied water from the District water system through an emergency intertie. Figure 1-3 provides a depiction of the Overdale Water System. This 2012 Plan Amendment will further describe the individual components of the Overdale Water System, and integration of the Overdale and District water systems.

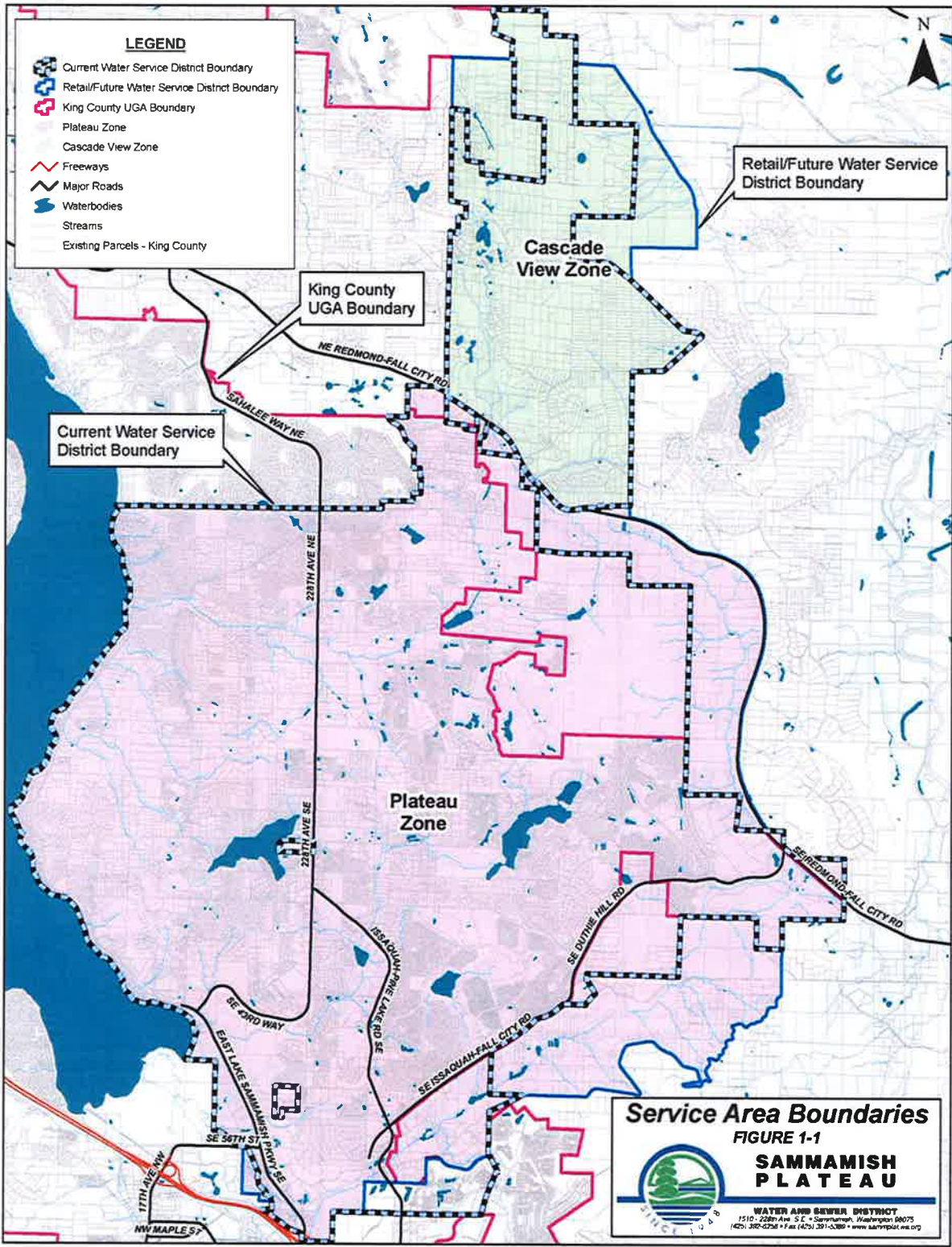
## **Chapter 2: Basic Planning Data & Water Demand Forecasting**

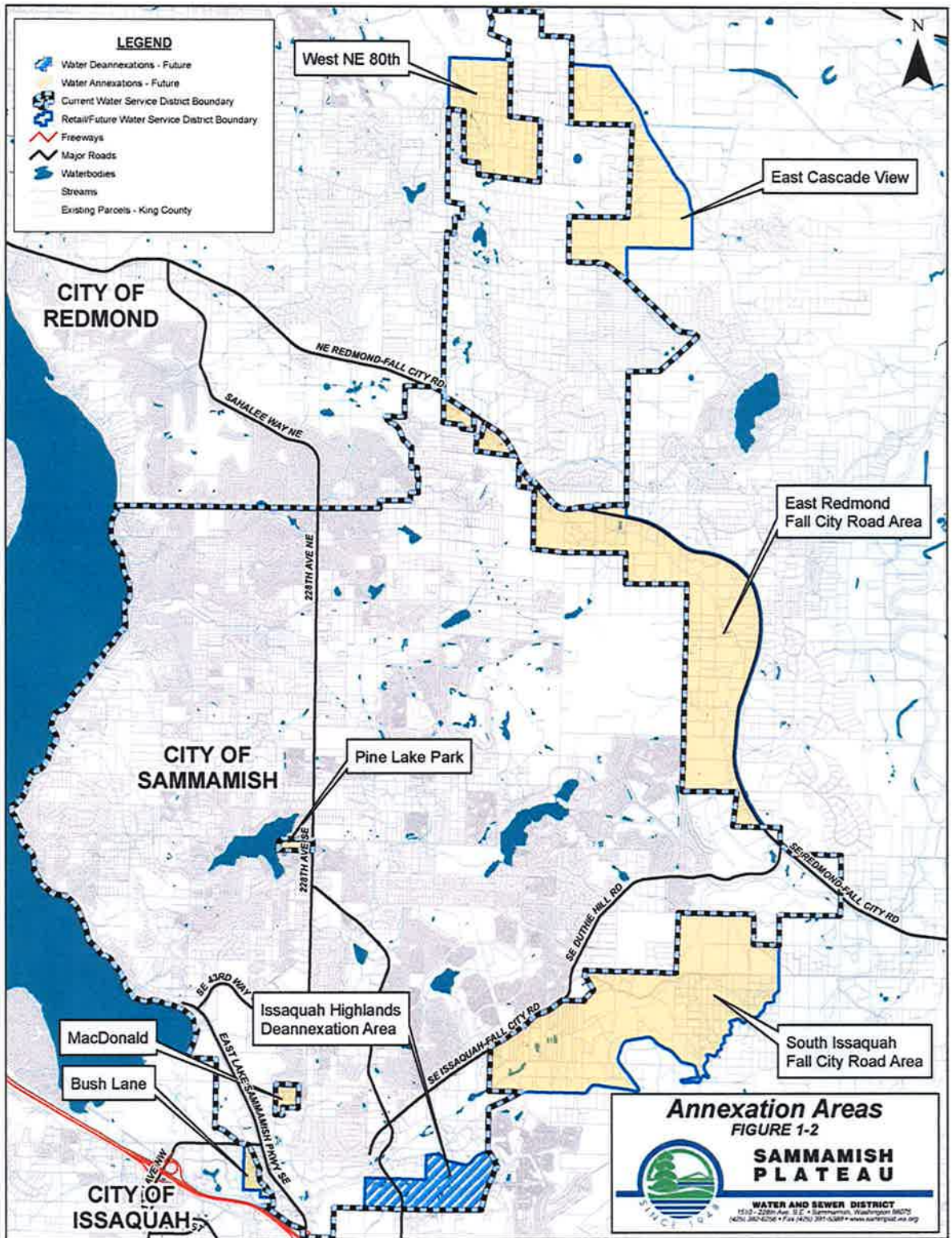
The existing and projected water demands for the District's service area are presented in Chapter 2 of the 2010 Plan. The 2012 Plan Amendment does not alter any of the information presented in the 2010 Plan, but provides an addition for the properties included in the Overdale Service Area that were not previously considered in the 2010 Plan. The Overdale Service Area addition is comparatively small, adding only 100 acres to the over 28 square mile District.

### **2.1 Current Population, Service Connections, Water Use, and Equivalent Residential Units**

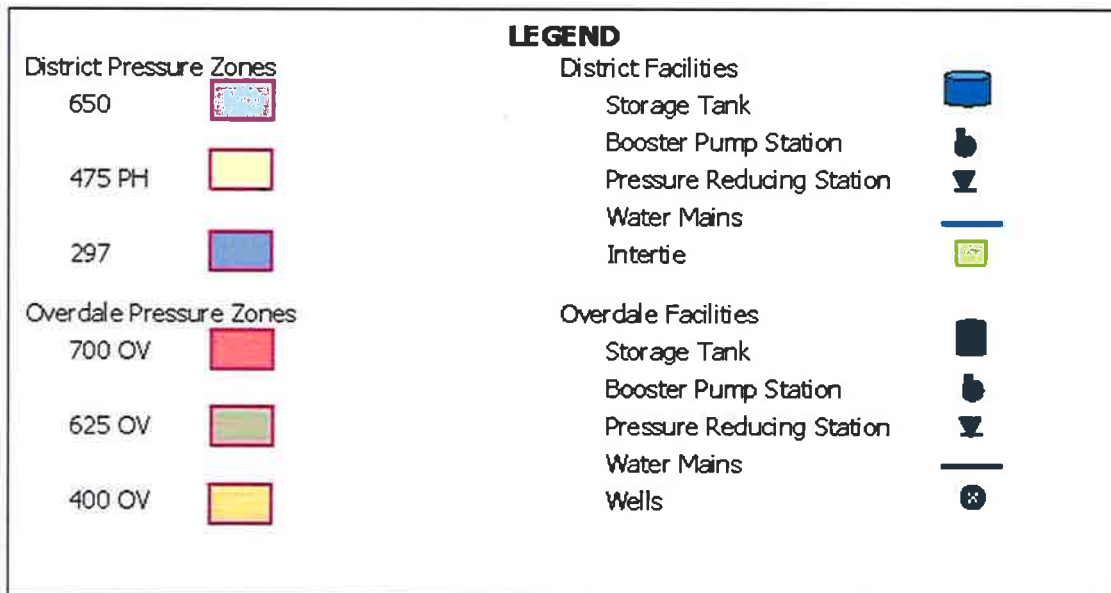
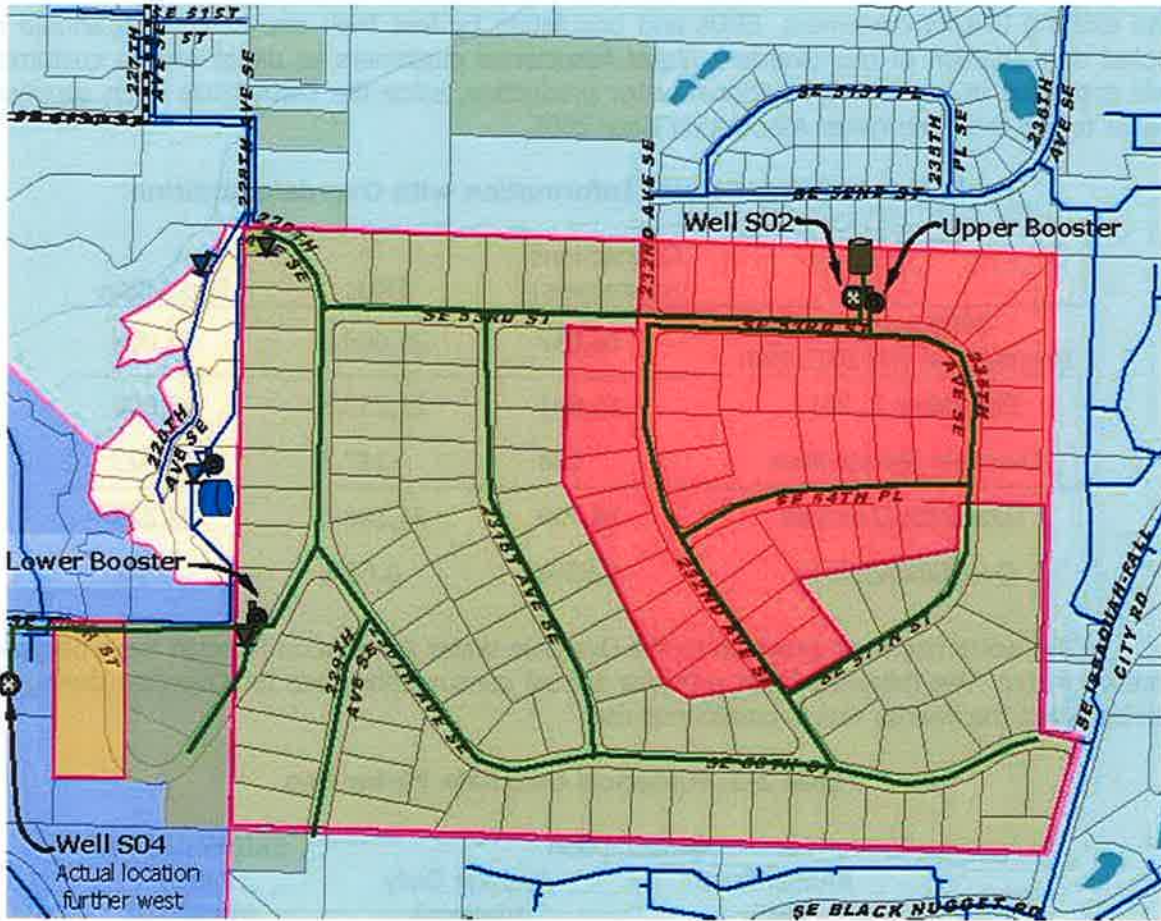
The 2010 Plan presented the existing services as of 2008. Table 2-1 of the 2010 Plan indicated an average of 16,067 connections representing 21,009 Equivalent Residential Units (ERUs) for 2008. The totals existing service for December 2, 2011 are 16,661 connections representing 21,750.5 ERUs. The residential population is approximately 53,800. The Overdale Water Association customers are not included in these figures.

The Overdale Water Association provides water service to 138 current customers. The majority of the customers have 3/4-inch meters, representing 1 ERU each. There is 1 customer with a 1-inch meter, representing 2.5 ERUs, and 2 customers with 1-1/2" meters, representing 5 ERUs each. The total current Overdale service represents 147.5 ERUs. Using the Puget Sound Regional Council population estimate, for the Plateau Zone for 2010 – 2020, of 2.87 persons per household, the Overdale Service Area includes a population of approximately 423 persons.





**Figure 1-3: Existing Overdale Water System**



Addition of Overdale Water Association customers to the District direct service area will increase the existing District customers, ERUs and population by less than one percent. It should be noted that addition of the Overdale Water Association customers as direct service customers will not result in any actual additional water production, since the District has been supplying water to the Overdale Water Association since 2005.

**Table 2-1: Existing Service Information with Overdale Addition**

	Connections (customers)	ERUs	Population
2008 Average Presented in the 2010 Plan	16,067	21,009.0	52,000
December 2, 2011	16,661	21,750.5	53,800
Overdale Service Area	138	147.5	423
Total With Overdale	16,799	21,898.0	54,223
Overdale Addition	0.83%	0.68%	0.79%

The water has been provided to the Overdale Water Association through the emergency intertie meter. The following table provides annual consumption data for Overdale during the period when the intertie was in continuous use.

**Table 2-2: Historical Overdale Water Use**

Year	Consumption		ERU Water Use Factor <sup>1</sup> (gpd/ERU)
	Annual Total (MG)	Average Daily (Gallons)	
2005	11.7 <sup>2</sup>	49,425	335
2006	16.5	47,064	319
2007	13.4	37,293	253
2008	13.8	36,930	250
2009	15.1	36,938	264
2010	12.6	34,667	235
2011	13.7	36,265	246
Average	14.2	38,526	261

<sup>1</sup> Based on 143.5 ERUs and on the water supplied through the intertie, not meter readings.

<sup>2</sup> 2005 data is for less than a full year

The 2010 Plan reported a water use factor in the District from 2006-2008 as 268 gpd/ERU for all customers, and 224 gpd/ERU for single-family customers. The Overdale Service Area average water use factor based on District supply through the intertie is 261 gpd/ERU. The Overdale figure is likely higher than the actual water use factor because it is based on supply figures and does not account for water used for maintenance or system leakage.



## 2.2 Projected Land Use, Future Population, and Water Demand

### Projected Land Use

The Overdale Service area is urban single-family residential located within the City of Issaquah. Most of the Overdale customers are located within the Overdale Park plats, which include 142 properties. There are 11 properties located outside the plat boundaries that also receive water service from the Overdale Water Association.

The properties within the Overdale Park plats are zoned SF-E, Single-Family Estates, with a density of 1.24 dwelling units per acre. At the current SF-E zoning, only one of the Overdale Park plat properties has the potential to subdivide. This property includes three of the original Overdale Park lots merged together, so could be considered to have the potential for two additional properties if the parcel was segregated to the original lots.

The 11 properties located outside of the Overdale Park plats are zoned SF-S, Single-Family Suburban, with a density of 4.5 dwelling units per acre. These 11 properties could potentially be developed to a maximum of 61 lots using a simple zoning-area formula. The 2010 Plan included these 11 properties in future projections for near-term and long-term ERUs and population forecasts under the assumption that further development of these properties would require service provision by the District. The District's 2010 Plan estimated the future potential land use at 50 lots.

### Near-Term ERU and Population Forecast

The 2010 Plan estimated the Near-term ERU forecast based on proposed developments within the District. Two of the properties receiving water from the Overdale Water Association, but located outside of the Overdale Park Plats were included in the 2010 Plan Near-term forecast based on their proposed development representing 26 ERUs.

The Overdale Water Association provides water service to 138 customers representing 147.5 ERUs, and also has an additional 15 paid memberships that do not currently receive service. The 15 paid memberships could be considered potential for service in the near term, an addition of 15 ERUs representing 43 people to the District's near-term forecast.

Comparing the 2010 Plan Near-Term ERU Forecast for 2011 with the Existing ERUs as of December 2, 2011 indicates the actual growth rate has been lower than the near-term forecast. The 15 additional ERUs represented by the addition of the Overdale Service Area to the District will not impact expectations for provision of service in the near-term, even when adding in the transfer of the existing Overdale customers.

**Table 2-3: Equivalent Residential Unit Forecast Comparison**

Land Use Jurisdiction	2010 Plan Forecast 2011	Existing ERUS December 2, 2011	Overdale Addition	Existing + Overdale
City of Sammamish	13,929.0	13,608.0		13,608.0
City of Issaquah	2,854.0	2,796.0	147.5	2,943.5
King County	5,384.0	5,346.5		5,346.5
Total System	22,167.0	21,750.5	147.5	21,898.0

## **Long-Term ERU and Population Forecast**

The 2010 Plan long-term forecast considered the future buildout ERU capacity for all parcels within the District's service area. The 11 parcels receiving water service from Overdale Water Association, but located outside of the Overdale Park plats were included in the 2010 Plan Long-term forecast. Therefore, the only addition to the long-term forecast would come from within the Overdale Park plats. There are only four properties in the Overdale Park plats that do not currently receive service and have not purchased a membership.

Two of these four properties are owned by the Overdale Water Association and have water facilities located on the properties. Both of these properties will be available for development after the District has taken over operation of the water system within the Overdale Park plats. The other two properties have separate ownerships, and are also available for development. Together these four properties would be forecast to add 4 ERUs representing 12 people, and will not impact the District's long-term ERU forecast.

## **Water Demand Forecast**

The District has been providing water supply to the Overdale Service Area since 2005 through an emergency intertie. In the 2010 Plan this water demand was included in "Other Water Demand." Therefore, changing service to the existing Overdale Water Association customers to direct service customers will not change the demand water use. As demonstrated in the previous sections, this 2012 Plan Amendment does not significantly change the near or long term planning data, so the water demand forecasting will not be impacted.

## **Chapter 3: System Analysis**

This 2012 Plan Amendment considers the addition of the Overdale Water Association's water system (Overdale Water System) to the District's existing system. The impact of the additional customers and potential customers will be examined.

### **3.1 Source Capacity Analysis**

The source capacity analysis considers the ability of the District's existing sources of supply to meet the required of maximum day demands (MDD). The Overdale Water System is located in the District's Plateau Zone. As described in the 2010 Plan, there are multiple sources that provide water into the system including District wells and the South Regional Connection. The Overdale Water System wells are not being transferred to the District and no additional source will be provided by acquisition of the Overdale Water System.

As noted in Chapter 2, the Overdale Water System will add 147.5 ERUs immediately, 15 additional ERUs in the near term and 4 more ERUs for the long term forecast for a total of 166.5 ERUs. The source adequacy evaluation in the 2010 Plan considered the 2009 (current), 2015 (near-term) and 2029 (20-year) demands. Since the Total Available Source is the same for all three evaluations, the 20-year demands will be used to determine whether addition of the Overdale Water System will impact the source capacity.

With an Average Day Demand (ADD) water use factor of 224 gpd/ERU, the Overdale Water System ADD represents an additional 0.04 mgd. Applying a Peaking Factor of 2.423, the

Overdale Water System MDD is less than 0.1 mgd. The 2010 Plan evaluation of source adequacy for the Plateau Zone found there was a Total Source Surplus of 7.08 mgd for the 20-year demands. Therefore, there is system-wide adequate source capacity for the additional 0.1 mgd demand from addition of the Overdale Water System.

The Overdale Water System receives service from the 650 Pressure Zone. The 2010 Plan evaluation found that there was an available source surplus of 4.20 mgd in the 650 Pressure Zone. Therefore, there is also adequate source capacity in the 650 Pressure Zone for the additional 0.1 mgd demand from the addition of the Overdale Water System.

### **3.2 Storage Capacity Analysis**

The Storage Capacity Analysis evaluates the required storage considering five storage components: Operating, Equalizing, Fire Flow, Standby and Dead volume. Each of these storage components are described in the 2010 Plan, and the descriptions are not repeated here. As with the source capacity analysis, the 2029 (20-year) service situation is used for the storage capacity evaluation.

Operating and Dead Storage Volumes are based on storage tank characteristics not impacted by the Overdale Service Area addition. For the District's Plateau Zone, where the Overdale Service Area is located, the Fire Flow volume is based on two simultaneous fires with a demand of 4,500 gpm each for three hours. This volume is also not impacted by the Overdale Service Area addition.

The Equalizing volume is based on the peak day demand, when demand may exceed the supply system capacity, and considers the storage available to provide a minimum pressure of 30 pounds per square inch (psi) to all customers. Addition of the 166.5 ERUs from the Overdale Service Area does increase the required Equalizing volume by 0.02 MG. This minimal increase represents an increase of 1.2 percent of the total Equalizing volume required in 2029.

Standby volume considers emergency operational situations, and considers the storage available to provide a minimum pressure of 20 psi to all customers. Addition of 166.5 ERUs from the Overdale Water System results in an increase of the required Standby volume by 0.03 MG, a 0.5 percent increase of the total Standby volume required in 2029.

The 2010 Plan findings of adequate storage capacity, are not changed by the reduction of 0.02 MG from the surplus storage at 30 psi from the increased Standby volume, or by the reduction of 0.05 MG from the surplus storage at 20 psi from the combined Equalizing and Standby volumes. Inspection of the 2010 Plan 650 Zone Storage Adequacy evaluation indicates there is sufficient storage surplus to cover additional storage volume requirements from addition of the Overdale Water Service area.

### **3.3 Distribution System Analysis**

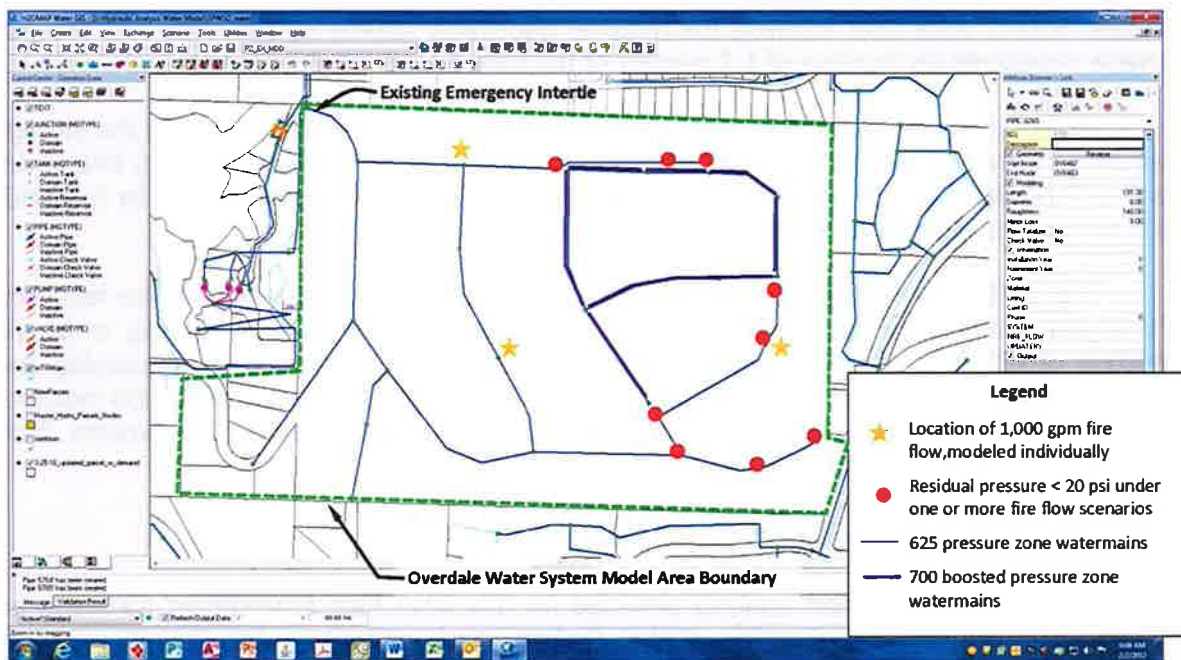
The distribution system analysis provided for this 2012 Plan Amendment considers an evaluation of the existing Overdale Water System, and outlines proposed improvements associated with integration of the Overdale Water System to the District's water system. The integration of the Overdale Water System will not change the analysis of the District distribution system provided in the 2010 Plan.

The distribution system analysis of the existing Overdale Water System was done by inserting the Overdale Water System into the District's Plateau Zone hydraulic model (H2OMap) with the existing single point of connection at the emergency intertie (see Figure 3-1). The modeling was limited to evaluation of the residual pressures in the Overdale Water System under maximum day demands with a single 1,000 gpm fire flow at each of three locations in Overdale's existing 625 pressure zone. The fire flow locations are indicated in Figure 3-1. Fire flow modeling for the smaller 700 zone, served by a booster pump station, was not performed because, by inspection, the existing 120 gpm pumps and 1,500 gallon hydro-pneumatic tank are not capable of providing the required fire flow.

The analysis identified significant deficiencies as described below:

- Fire flow at any point in the primary 625 pressure zone would cause unacceptably low or negative pressures along 235<sup>th</sup> Avenue SE south of SE 54<sup>th</sup> Street.
- The velocities in the portions of the system with 6-inch diameter watermains exceeded 11 feet per second.
- No fire flow is available in 700 pressure zone, despite the presence of fire hydrants. Use of a fire hydrant in this zone would drop the available pressure at the customer meters to unacceptably low levels, and would quickly deplete the pressure tank. The booster pumps would be unable to keep up with the demand, and if the relief valve from the 37,000 gallon storage tank opened, the available storage would be depleted in less than 1/2 hour.

**Figure 3-1 – Overdale Water System Hydraulic Model Results**



Integration of the Overdale Water System distribution system with the District's water system is proposed to include:

- Installation of two additional connections between the Overdale Water System and District water system.
- Installation of additional distribution main in the primary pressure zone paralleling portions of the boosted pressure zone, to allow addition of fire hydrants and fire protection to the area served by the boosted pressure zone.

This Overdale Integration project is more fully described and discussed in Chapter 8, Capital Improvement Program.

## **Chapter 4: Conservation Program, Supply Analysis, Water Rights, System Reliability and Interties**

This 2012 Plan Amendment will consider the impact of inclusion of the Overdale Service Area for direct water service provision by the District with respect to supply, conservation and reliability.

### **4.1 Conservation Program**

This 2012 Plan Amendment does not alter or change the 2010 Plan with respect to the Conservation Program. Following integration of the Overdale Water System customers to the District system, they will have access to conservation program elements supported by the District, and will also be subject to the District's conservation based water rates.

### **4.2 Source of Supply Strategy**

This 2012 Plan Amendment does not alter or change the 2010 Plan source of supply strategy. The District's supply will continue to be a blend of groundwater supplies from District wells and regional supply from the Cascade Water Alliance.

### **4.3 Water Rights Evaluation**

This 2012 Plan Amendment does not alter or change the 2010 Plan water rights evaluation. While Overdale Water Association has groundwater wells and associated water rights, those facilities and water rights are not being acquired by the District as part of the integration of the Overdale Water System into the District water system. As note previously, the District utilizes groundwater supplies in conjunction with supply from the Cascade Water Alliance regional connections.

### **4.4 Aquifer Storage and Recovery Program**

This 2012 Plan Amendment does not alter or change the 2012 Plan Aquifer Storage and Recovery Program.

## **4.5 Water System Reliability**

This 2012 Plan Amendment does not alter or change the 2010 Plan Water System Reliability discussion for the existing District service area for either the source or distribution system.

The source reliability for the Overdale Service Area will be improved. The Overdale Water System had two operational supply wells, the older upper well (Overdale SO-2) and the newest valley well (Overdale SO-4). Overdale SO-4 was a replacement for a prior valley well, and was intended to be the primary supply for the Overdale Water Association. However, Overdale SO-4 was found to have an average arsenic level of 11.64 parts per billion (ppb), higher than the 10 ppb allowed by current drinking water standards. The Overdale SO-4 water quality was the reason the Overdale Water System supply has been provided from the District since 2005. Once the Overdale Water System has been fully integrated as part of the District's system, their source reliability will be the same as for the rest of the District.

The distribution system reliability for the Overdale Service Area will also be improved. There is currently just one connection between the District and Overdale Water Systems, through the existing intertie. When the integration of the Overdale Water System has been completed, there will be a total of three piped connections, and the system will be part of the system network, instead of a dead end.

## **4.6 Interties**

This 2012 Plan Amendment foresees the removal of the Overdale Water Association intertie with the District, to be replaced with an open connection. The remainder of the interties described in the 2010 Plan will not be changed or altered by the 2012 Plan Amendment.

## **Chapter 5: Source Water Protection**

This 2012 Plan Amendment does not alter or change the District's adopted 2010 Plan with respect to the source water protection for the District's groundwater wells.

## **Chapter 6: Operations and Maintenance Program**

The Operation and Maintenance Program (O&M Program) outlines the daily functions involved in keeping the water system running smoothly. The O&M Program considers the District management and personnel, certifications, system operation and control, monitoring requirements, emergency response program, safety procedures, cross-connection control programs, customer complaints, recordkeeping, reporting, proposed operation improvements and the water shortage response plan.

Addition of the Overdale Water System and Overdale Service Area to the District will not result in significant changes to the O&M Program as described in the 2010 Plan, but there will be additions to certain system components. These changes are noted in the following and are additions to the components described in the 2010 Plan, Section 6.3.1. Identification of Major System Components, 6.3.1.1 Plateau Zone Components and are considered to be additions to the South End of the Plateau Zone.

## Source of Supply

The Overdale Water System has two operational wells, but neither well is currently in use, and the wells are not being transferred to the District as part of acquisition of the Overdale Water System. The District has been providing supply to the Overdale Water System since mid-2005. There will be no changes or alterations to operation and maintenance of the existing District sources of supply due to integration of the Overdale and District water systems.

## Treatment Facilities

Integration of the Overdale and District water systems will not result in any changes to the treatment facilities described in the 2010 Plan. Water supplied to the Overdale Service Area is both chlorinated and fluoridated.

## Storage Tanks

The Overdale Water System has a 37,000 gallon steel storage tank located in the 625 pressure zone. The storage tank will be decommissioned and not transferred to the District as part of the acquisition of the Overdale Water System. Integration of the Overdale and District water systems will not change or alter the operation and maintenance of the existing District storage tanks.

## Water Distribution System

The Overdale Water System includes approximately 3 miles of water main, the majority of which is AC main installed in the 1960s when the Overdale Park plats were developed. There are also 15 fire-hydrants. Table 6-1 indicates the relative increase in water mains that will become part of the District system. There is a significant increase in the amount of 2-inch diameter Galvanized main and 6-inch diameter AC main to the system, but the overall increase in main length is less than one percent.

**Table 6-1 Water Distribution Additions from Overdale**

Water Main Size		Length (miles, unless otherwise noted)				
Water Main Size/Type	Overdale (ft)	Overdale (miles)	South Plateau Zone	District Total	Total with Overdale	% increase
2" GALV	500	0.09	0.10	0.21	0.30	45.1%
4" AC	1,000	0.19	2.56	3.32	3.51	5.7%
6" AC	10,000	1.89	6.44	8.53	10.42	22.2%
6" DI	330	0.06	1.23	1.61	1.67	3.9%
8" AC	1,800	0.34	13.12	15.85	16.19	2.2%
8" DI	1,780 <sup>1</sup>	0.34	113.45	151.65	151.99	0.2%
Total all Sizes <sup>2</sup>	15,410	2.92	204.73	273.52	276.10	1.1%
Water Main Type		Length (miles, unless otherwise noted)				
Water Main Type	Overdale (ft)	Overdale (miles)	South Plateau Zone	District Total	Total with Overdale	% increase
AC	12,800	2.42	23.20	28.78	31.20	8.4%
DI	2,110	0.40	175.40	233.16	233.22	0.2%
GALV	500	0.09	0.10	0.24	0.33	39.5%
TOTAL <sup>1</sup>	15,410	2.92	204.73	273.52	276.10	1.1%

<sup>1</sup> The 8-inch DI main in Overdale is being installed as part of the integration project.

<sup>2</sup> Not all main sizes and types shown in the Table 6-1

The Overdale distribution system includes three primary pressure zones, the primary 625 pressure zone, a boosted 700 pressure zone, and a small 400 pressure zone. As part of integration of the Overdale and District water systems, the 625 pressure zone will be converted to the District 650 Pressure Zone, and increase of 11 psi in that portion of the distribution system. The Overdale 700 Pressure Zone will be retained, but will be reduced in size. A portion of the current 700 Pressure Zone will be converted to the 650 Pressure Zone as part of the fire flow improvements. A small portion of the 625 Pressure Zone, serving only 5 customers, will be converted to Overdale 400 Pressure Zone, and one Overdale customer will be connected to the District's 297 Pressure Zone.

### **Booster Pump Stations**

The Overdale Water System includes two booster pump stations. The lower booster pump station was used to boost water from the lower well, Overdale S-04, to the Overdale 625 Pressure Zone. The lower booster station is not currently in operation, and will not be transferred to the District as part of acquisition of the Overdale Water System.

The upper booster pump station is used to supply the Overdale 700 Pressure Zone from the 625 Pressure Zone. The upper booster pump station includes two 120 gpm pumps that pump into a 1,500 gallon pressure tank designed to maintain pressure in the tank between 40 and 60 psi. The upper booster pump station, (Overdale Booster Station) will be upgraded as part of the integration process, and will continue to provide service to the Overdale 700 Pressure Zone.

Integration of the Overdale and District water systems will not result in any changes to existing District booster pump stations described in the 2010 Plan.

### **Pressure Reducing Stations**

There is one pressure reducing station operating in the Overdale Water System. The Overdale 400 pressure zone is fed from through a pressure reducing valve from the 625 pressure zone (Overdale PRV). The Overdale PRV is a small station, providing service to the 400 zone when Well SO4 is not in service. The Overdale PRV will be reused to provide service to the 2-inch Galvanized line at a lower pressure following integration of the Overdale and District water systems.

Integration of the Overdale and District water systems will not result in any changes to existing District pressure reducing stations described in the 2010 Plan.

### **Control Valves**

The Overdale 625 Pressure Zone is currently fed from the District 650 zone through an intertie that includes a control valve which allows water from the District's 650 Pressure Zone to fill and maintain the water level in the Overdale Storage Tank. When the integration of the Overdale and District system has been completed, the Overdale 625 Pressure Zone will be converted to the 650 Pressure Zone and this control valve will be decommissioned.

Integration of the Overdale and District water systems will not result in any changes to any of the other the control valves described in the 2010 Plan.



## **Interties**

The Overdale Water System is currently supplied through an emergency intertie from the District. When the integration of the Overdale and District system has been completed, the Overdale Intertie will be decommissioned.

Integration of the Overdale and District water systems will not result in any changes to any of the other the interties described in the 2010 Plan.

## **Emergency Operation Considerations**

Emergency operation considerations described in the 2010 Plan note the use of multiple facilities that provide redundancy for system operations and the use of generators for power outage situations. The proposed integration of the Overdale and District water systems continues these principles. The integration includes installation of two additional pipe connections between the District and Overdale systems that will provide redundancy for supply to the Overdale Water System, and the Upper Overdale Booster System has a back-up generator.

## **Chapter 7: Distribution Facilities Design and Construction Standards**

This 2012 Plan Amendment does not alter or change the District's adopted 2010 Plan with respect to the District distribution facility design and construction standards.

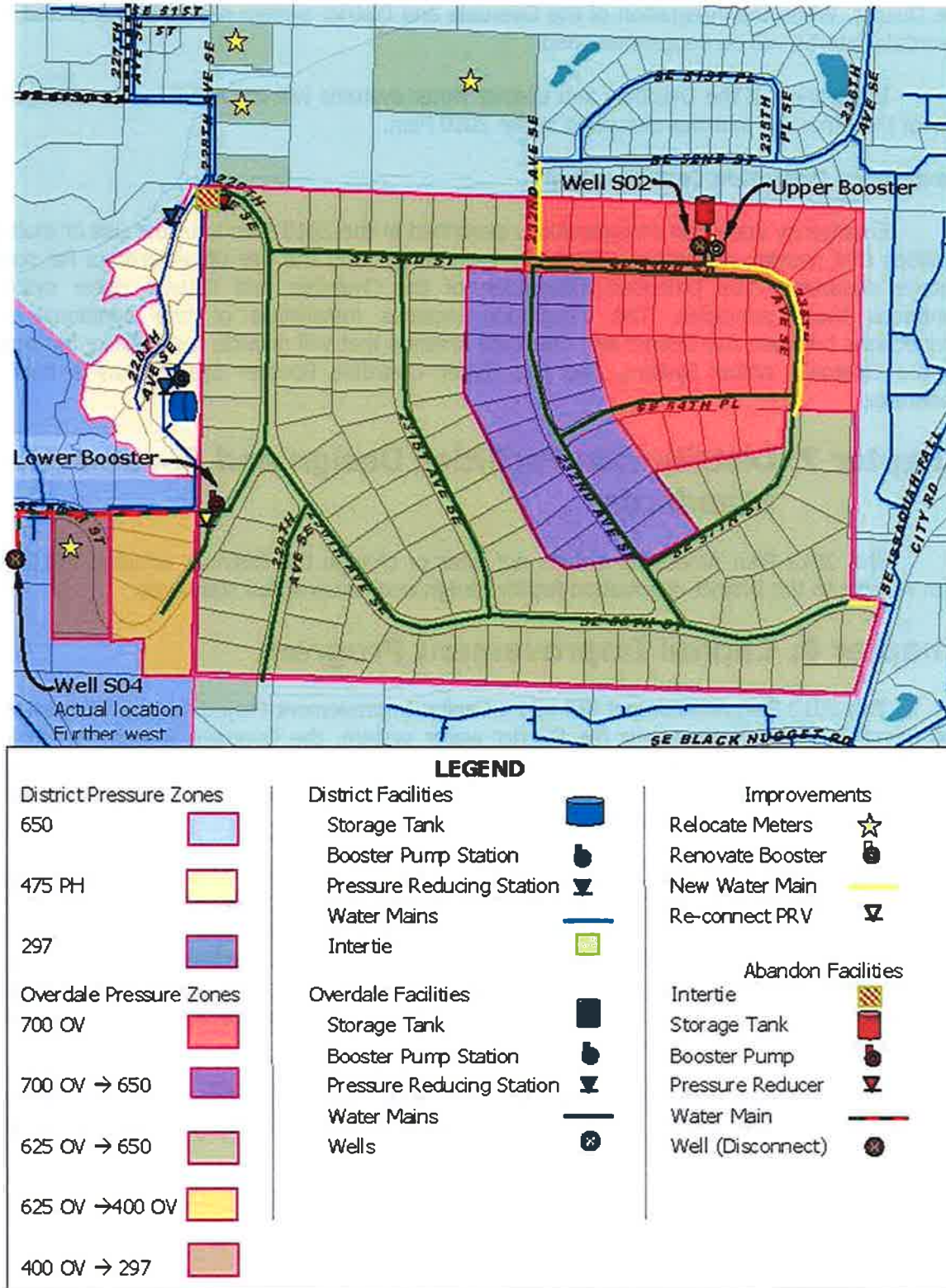
## **Chapter 8: Capital Improvement Program**

This 2012 Plan Amendment will add a Capital Improvement Project for the integration of the Overdale Water System into the District water system, the Overdale Integration project. The Overdale Integration Project includes improvements to both the water distribution system and booster pump station, and for purposes of the 2012 Plan Amendment, the project will be labeled M-11 under Water Maintenance and Operation.

The Overdale Integration Project M-11 will be added to the 2010 Plan 6-year Capital Improvement Program for expected construction starting in 2012. Project M-11 will convert the Overdale 625 Pressure Zone to the 650 Pressure Zone, reduce the size of the Overdale 700 Pressure Zone, renovate the Overdale Booster Pump feeding the Overdale 700 Pressure Zone, network the Overdale distribution system with the District 650 Pressure Zone providing multiple redundant feeds to the Overdale distribution system, and improve fire flow within portions of the Overdale distribution system. (See Figure 8-1.)

The 2012 Plan Amendment does not change or alter any of the Capital Improvement Program developed for the 2010 Plan, other than addition of Project M-11, Overdale Integration Project.

**Figure 8-1: Overdale Integration Project – CIP M-11**



## **M-11 Overdale Integration Project**

- Installation of approximately 180 feet of 8-inch water main between the Overdale water main at the east end SE 58th Street and the District water main at the intersection of SE 58th Street and SE Issaquah Fall City Road to provide connection to the 650 Pressure Zone.
- Installation of approximately 400 feet of 8-inch water main between the Overdale water main in SE 53rd at 232nd Ave SE and the District water main at SE 52nd and 232nd Ave SE to provide connection to the 650 Pressure Zone.
- Installation of approximately 1200 feet of 8-inch water main connecting to existing water mains in the 625/650 Pressure Zone between the Overdale Storage Tank connection in SE 53rd St and the intersection of SE 54th Place and 235th Ave SE, including 3 fire hydrants. This main will provide water system looping within the existing 625/converted 650 Pressure Zone within Overdale and improve fire protection to 235th Ave SE and SE 54th Pl.
- Renovate the upper Overdale Booster Pump Station including:
  - rehabilitation or replacement of the building.
  - installation of a new booster pump assembly and control panel.
  - installation of a new pressure tank.
  - installation of SCADA to meet District standards.
  - reconfiguration of internal piping as necessary.
  - reconfiguration of the power and electrical system as necessary.
- Relocate 4 Overdale water meters to District water mains adjacent to or in closer proximity to the properties receiving service.
- Replace any existing Overdale water meters that do not meet District standards for new water meters, with new water meters.
- Install Individual Pressure Reducing Valves (PRVs) behind service meters in the 625/650 Pressure Zone, where the increased system pressure will raise the pressure at the meter over 80 psi.
- Abandon the Overdale Storage Tank.
- Disconnect and abandon the water main between the Overdale Storage Tank and distribution system.
- Disconnect and abandon the water main from Overdale Well S-02 to the Overdale Storage Tank and distribution system.
- Disconnect and abandon the water main from Overdale Well S-04 to the Overdale Lower Booster Pump Station and distribution system.
- Abandon the Overdale Lower Booster Pump Station, but reconfigure piping to connect the Pressure Reducing Station from the 625/650 Pressure Zone to the 2-inch galvanized main, resulting in a reconfigured Overdale 400 Pressure Zone.

The estimated cost of the Overdale Integration Project M-11 is \$1.12 million dollars. Project M-11 is anticipated to be financed through the Utility Local Improvement District (ULID) process. The ULID is proposed to include assessment of other costs associated with integration of the Overdale and District water systems including annexation, development of this 2012 Plan Amendment, water rights analysis, water audit by Cascade Water Alliance and associated legal costs.

## **Chapter 9: Financial Summary**

This 2012 Plan Amendment does not alter or change the financial summary provided in the District's adopted 2010 Plan.

## **Chapter 10: Implementation**

This 2012 Plan Amendment does not alter or change the District's adopted 2010 Plan with respect to implementation of the 2010 Plan. Completion of the Overdale Annexation, which preceded this 2010 Plan Amendment, satisfied one of the goals identified in the 2010 Plan.

# Environmental Review

SEPA Rules

WAC 197-11-970 Determination of nonsignificance (DNS).

DETERMINATION OF NONSIGNIFICANCE

Description of proposal: Sammamish Plateau Water & Sewer District 2012 Water Comprehensive Plan Amendment

Proponent Sammamish Plateau Water and Sewer District - Administration Department.

Location of proposal, including street address, if any: The District's service area, which is on the Sammamish Plateau and the eastern portion of Union Hill. The District is bounded by Lake Sammamish on the west and the Snoqualmie Valley on the east, and approximately NE 90th Street in the north, and I-90 on the south. The project area is located within Sections 1-17, 21-23, 27, and 28 of Township 24N, Range 6E; Sections 5-8 and 18 of Township 24N, Range 7E; Sections 1, 2, 11-14, 22-29, and 31-36 of Township 25N, Range 6E; and Section 30 and 31 of Township 25N, Range 7E. The 2012 Plan Amendment addresses the Overdale Water Association Service Area located in Sections 21 and 22 of Township 24 N, Range 6E.

Lead Agency: Sammamish Plateau Water and Sewer District

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. 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 and other information on file with the lead agency. This information is available to the public on request.

- There is no comment period for this DNS
- This DNS is issued under 197-11-340(2); the lead agency will not act on this proposal for 15 days from the date below. Comments must be submitted by February 24, 2012

Responsible official: John Krauss

Position/title: General Manager

Sammamish Plateau Water and Sewer District Phone (425) 392-6256

Address: 1510 - 228th Avenue SE, Sammamish, Washington 98075

Date: 2/8/12 Signature 

(OPTIONAL)

- You may appeal this determination to (name) \_\_\_\_\_  
at (location) \_\_\_\_\_  
no later than (date) \_\_\_\_\_  
by (method) \_\_\_\_\_

You should be prepared to make specific factual objections.  
Contact \_\_\_\_\_ to read or ask about the procedures  
for SEPA appeals.

- There is no agency appeal.

## ENVIRONMENTAL CHECKLIST

### A. BACKGROUND

1. **Name of proposed project, if applicable:**  
*Sammamish Plateau Water & Sewer District 2012 Water Comprehensive Plan Amendment*
2. **Name of applicant:**  
*Administration Department  
Sammamish Plateau Water and Sewer District*
3. **Address and phone number of applicant and contact person:**  
*Jay Regenstreif  
Sammamish Plateau Water and Sewer District  
1510 228th SE  
Sammamish, WA 98029  
(425) 392-6256*
4. **Date checklist prepared:**  
*February 7, 2012*
5. **Agency requesting checklist:**  
*Washington State Department of Health*
6. **Proposed timing or schedule (including phasing if applicable):**  
*The 2012 Water Comprehensive Plan Amendment ("2012 Plan Amendment") considers a specific addition to the Sammamish Plateau Water and Sewer District 2010 Water Comprehensive Plan ("2010 Plan"). The 2010 Plan covers a 20 year planning horizon. Activity associated with the 2012 Plan Amendment is anticipated to occur during 2012 and 2013.*
7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**  
*This SEPA review for the 2012 Plan Amendment is a "non-project action". There are specific actions described in the 2012 Plan Amendment that will be reviewed under a separate project and site specific SEPA processes for those actions.*
8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**  
*Previous SEPA Checklist for the 2010 Plan.*
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.**  
*No.*

- 10. List any government approvals or permits that will be needed for your proposal, if known.**

*The 2012 Comprehensive Plan Amendment is subject to approval by Washington State Department of Health, King County and City of Issaquah. Cascade Water Alliance approval of District service area expansion is also required.*

- 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.**

*This 2012 Plan Amendment has been prepared to formally identify inclusion of the Overdale Water Association service area ("Overdale Service Area") as an area of direct water service provision by the District, and allow provision of full service from the District to the Overdale Service Area.*

*There will be a subsequent project to install water system improvements to integrate the Overdale Water System into the District water system, to allow provision of direct water service by the District to the Overdale Water Association customers ("Overdale Integration Project").*

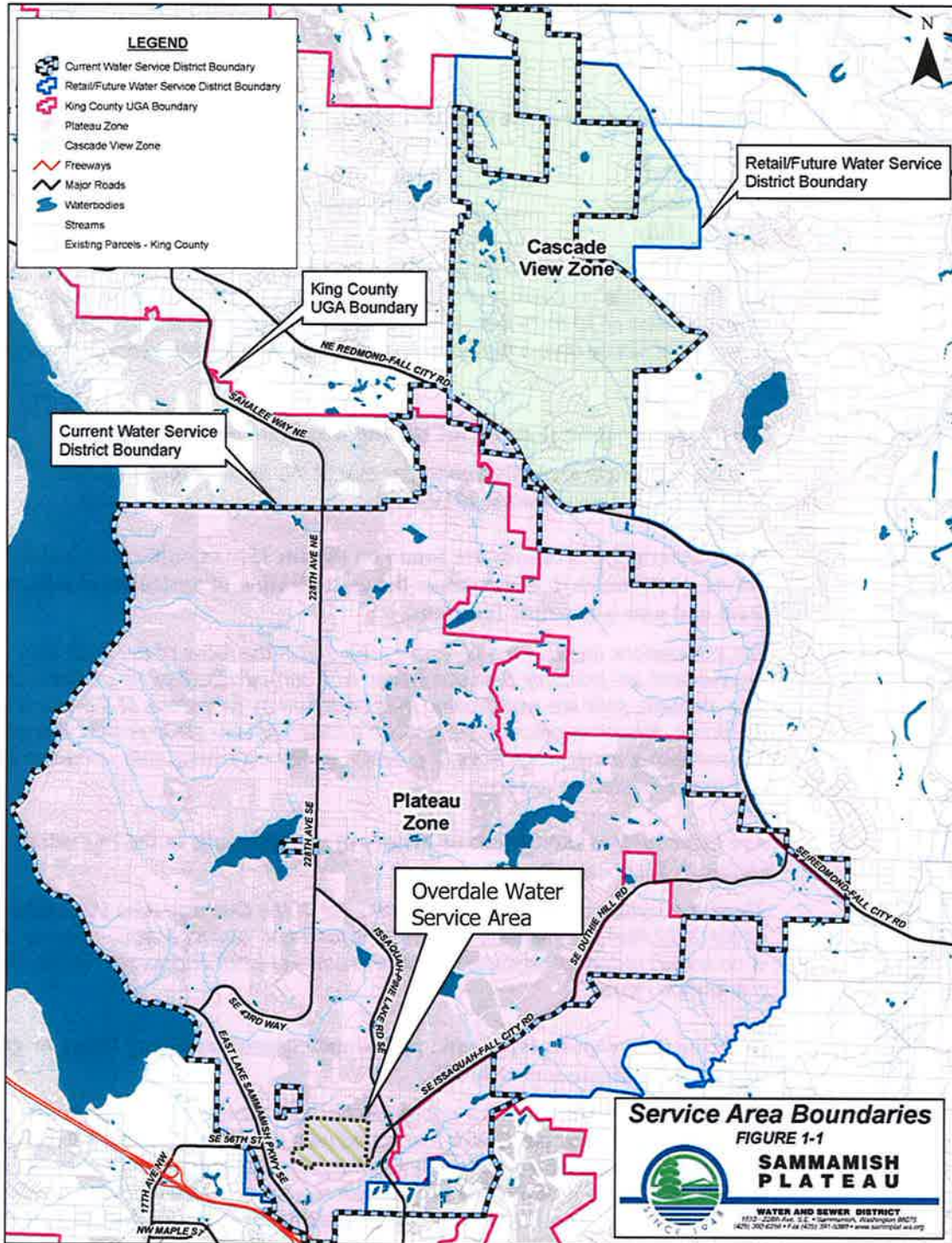
- 12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, section, township, range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the sites(s). 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 District's service area is on the Sammamish Plateau and the eastern portion of Union Hill. The District is bounded by Lake Sammamish on the west and the Snoqualmie Valley on the east, and approximately NE 90th Street in the north, and I-90 on the south. The project area is located within Sections 1-17, 21-23, 27, and 28 of Township 24N, Range 6E; Sections 5-8 and 18 of Township 24N, Range 7E; Sections 1, 2, 11-14, 22-29, and 31-36 of Township 25N, Range 6E; and Section 30 and 31 of Township 25N, Range 7E.*

*The 2012 Plan Amendment addresses the Overdale Water Association Service Area located in Sections 21 and 22 of Township 24 N, Range 6E.*



Figure 1-1 Project Vicinity Map



**B. ENVIRONMENTAL ELEMENTS**

**1. Earth**

**a. General description of the site (check one):**

- |   |                                       |
|---|---------------------------------------|
| <input type="checkbox"/> Flat             | <input type="checkbox"/> Steep Slopes |
| <input type="checkbox"/> Rolling          | <input type="checkbox"/> Mountainous  |
| <input checked="" type="checkbox"/> Hilly | <input type="checkbox"/> Other        |

*The Sammamish Plateau contains gently rolling hills ranging in elevation from 350 to 620 feet, with the southern part of the District sloping down toward the Issaquah Valley at an elevation of 30 to 75 feet. The Overdale area that is the focus of the 2012 Plan Amendment slopes from a high elevation of 575 to the Issaquah Valley at an elevation of 140.*

**b. What is the steepest slope on the site (approximate percent slope)?**

*The steepest slope in the Overdale area that is the focus of the 2012 Plan Amendment is approximately 30 percent.*

**c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, mulch)? If you know the classification of agricultural soils, specify them and note any prime farmland.**

*Soil associations found in the Overdale area that is the focus of the 2012 Plan Amendment are primarily Beausite series, with some Everett series on the southern side. Beausite soils are well drained soils underlain by sandstone at a depth of 20 to 40 inches, formed in glacial deposits with a rolling to very steep profile. Everett soils are somewhat excessively drained, gravelly, gently undulating soils underlain by sand and gravel located on terraces.*

**d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

*There is a history of unstable soils to the west of the Overdale area that is the focus of the 2012 Plan Amendment. This SEPA is for a non-project action. However, there is no known history of unstable soils in the areas of work anticipated for the Overdale Integration Project.*

**e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.**

*The 2012 Plan Amendment is a non-project action. However, it will be necessary to excavate, backfill and grade soils associated with the Overdale Integration Project, and these activities will be the subject of the project-specific SEPA review. Trench backfill will comply with the City of Issaquah requirements for imported backfill, and the source would be determined by the contractor hired for the Overdale Integration Project.*

**f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

*The 2012 Plan Amendment is a non-project action. However, erosion and sediment transport could occur during clearing and earth moving activities associated with*

*excavation, backfill and grading of soils associated with the Overdale Integration Project, and these activities will be the subject of the project specific SEPA review. Exposed soils during excavation are subject to erosion prior to resurfacing or revegetation. Transfer of excavated and fill material both to and from construction could leave mud and excavated material on adjacent streets. No long term erosion is anticipated from any project component.*

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

*The 2012 Plan Amendment is a non-project action. However, there is no anticipated increase in impervious surfaces associated with the Overdale Integration Project.*

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

*The 2012 Plan Amendment is a non-project action. However, a temporary erosion and sedimentation control plan will be prepared and implemented consistent with the City of Issaquah requirements for the subsequent Overdale Integration Project. Appropriate Best Management Practices will be installed to help prevent and control runoff and erosion of exposed soils during construction.*

**2. Air**

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.**

*The 2012 Plan Amendment is a non-project action. However, grading operations associated with the subsequent Overdale Integration Project could result in temporary airborne dust particulates during dry construction. Exhaust from equipment during construction will be minimal.*

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

*No.*

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:**

*For the subsequent Overdale Integration Project emission and dust control methods will be employed as necessary.*

### 3. Water

#### a. Surface:

- 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.**

*There is an unnamed drainage located northwest of the Overdale Plat area. This drainage flows eventually to a wetland in Lake Sammamish State Park, west of East Lake Sammamish Parkway. The wetland is adjacent to both Issaquah Creek and Lake Sammamish.*

- 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.**

*The 2012 Plan Amendment is a non-project action. However, work associated with the Overdale Integration Project may require relocation of a water meter within 200 feet of the unnamed drainage. This meter relocation would take place in an existing driveway.*

- 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.**

*None.*

- 4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

*The 2012 Plan Amendment concerns the provision of direct water service to the Overdale Service Area. The District has connections to the regional surface water supply through its membership in Cascade Water Alliance. Impacts associated with surface water withdrawals would be addressed under any Cascade Water Alliance or Seattle Public Utilities (current owner/operator of the surface water supply) SEPA review.*

- 5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

*No.*

- 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.**

*The 2012 Plan Amendment is a non-project action. However, none of the work associated with the Overdale Integration Project is anticipated to discharge waste materials to surface waters.*

**b. Ground:**

- 1) **Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

*The 2012 Plan Amendment concerns the provision of direct water service to the Overdale Service Area, and portion of the District's water supply is from groundwater wells, up to the District's water rights. Historically, the Overdale Water Association has provided water service to the Overdale Service Area using Overdale's groundwater wells and associated water rights.*

*The water service demand of the Overdale Water Service Area is estimated to be an Average Daily Demand of 0.04 million gallons per day (MGD), and a Maximum Day Demand of less than 0.1 MGD, and would be supplied by a blend of surface and ground water sources.*

- 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.**

*The 2012 Plan Amendment is a non-project action. However, none of the work associated with the Overdale Integration Project is anticipated to discharge waste materials to the ground.*

*The Overdale Service Area is a single family residential area including 142 customers that, except for three houses that are connected to a sanitary sewer system, use septic systems for wastewater service.*

**c. Water Runoff (including storm water):**

- 1) **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, in known). Where will this water flow? Will this water flow into other waters? If so, describe.**

*The 2012 Plan Amendment is a non-project action. However, during the subsequent Overdale Integration Project, stormwater runoff from any disturbed areas will be routed through erosion and sedimentation control facilities to minimize impacts to surface water bodies. The surface water bodies downstream of the Overdale Integration Project area include the North Fork Issaquah Creek, Issaquah Creek and Lake Sammamish.*

- 2) **Could waste materials enter ground or surface waters? If so, generally describe.**

*The 2012 Plan Amendment is a non-project action. However, it is unlikely that waste materials would enter ground or surface waters during the subsequent Overdale Integration Project. A small possibility exists that a small spill or release of fuel or oil from construction equipment could enter nearby roadside ditches and stormwater systems.*

**d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:**

*The 2012 Plan Amendment is a non-project action. However, during the subsequent Overdale Integration Project a Temporary Erosion and Sedimentation Control Plan will be prepared and implemented consistent with the requirements of the City of Issaquah.*

**4. Plants**

**a. Check or circle types of vegetation found on the site:**

- deciduous tree: alder, maple, aspen, other cotton wood, dog wood, poplar
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- wet soil plants, cattail, buttercup, bulrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other type of vegetation

**b. What kind and amount of vegetation will be altered?**

*The 2012 Plan Amendment is a non-project action. However, the vegetation removal and alteration associated with the subsequent Overdale Integration Project will be limited in scope as the majority of the project work will occur in road or previously disturbed areas.*

**c. List threatened or endangered species known to be on or near the site.**

*None known.*

**d. Proposed landscaping use of native plants, or other measures to preserve or enhance vegetation on the site, if any:**

*The 2012 Plan Amendment is a non-project action. If removal of significant vegetation is identified during the subsequent Overdale Integration Project, a landscaping plan will be developed in conformance with the City of Issaquah regulations.*

**5. Animals**

**a. Check any bird and animals which have been observed on or near the site or are known to be on or near the site:**

- Birds:**
- hawk
  - heron
  - eagle
  - songbirds
  - other: \_\_\_\_\_

**Mammals:**      X   deer,  
                     X   bear,  
                   \_\_\_\_\_ elk,  
                   \_\_\_\_\_ beaver,  
                   \_\_\_\_\_ other \_\_\_\_\_

**Fish:**        \_\_\_\_\_ bass,  
                   \_\_\_\_\_ salmon,  
                   \_\_\_\_\_ trout,  
                   \_\_\_\_\_ herring,  
                   \_\_\_\_\_ shellfish,  
                   \_\_\_\_\_ other: \_\_\_\_\_

- b.    **List any threatened or endangered species known to be on or near the site.**  
       *None known.*
- c.    **Is the site part of a migration route? If so, explain.**  
       *Yes, the District is part of the Pacific Flyway.*
- d.    **Proposed measures to preserve or enhance wildlife, if any:**  
       *None proposed.*

**6. Energy and Natural Resources**

- 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.**  
       *The 2012 Plan Amendment is a non-project action. Provision of water service to the Overdale Service Area includes use of a booster pump station that uses electricity during normal operations, and a diesel powered generator for emergency operations. The subsequent Overdale Integration Project includes renovation of Overdale's Upper Booster Pump Station.*
- b.    **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**  
       *No.*
- 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:**  
       *The 2012 Plan Amendment is a non-project action. However, during the subsequent Overdale Integration Project the use of high-efficiency pumps and motors will be considered during the design and constructing of the renovated booster pump facility.*

## 7. Environmental Health

- 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.**

*The 2012 Plan Amendment is a non-project action. There are no anticipated environmental health hazards associated with the subsequent Overdale Integration Project.*

- 1) **Describe special emergency services that might be required.**

*None are anticipated.*

- 2) **Proposed measure to reduce or control environmental health hazards, if any:**

*The District has an Accident Prevention Program and has prepared District staff for workplace hazards associated with operation of the District's water system.*

## b. Noise

- 1) **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, and other)?**

*None.*

- 2) **What types and levels of noise would be created by or associated with the project on a short-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

*The 2012 Plan Amendment is a non-project action. However, there will be construction noise associated with the subsequent Overdale Integration Project.*

*Operation of the Overdale Upper Booster Pump Station is a source of noise and renovation of the station is a part of the Overdale Integration Project. The level of noise is not anticipated to change as a result of the renovation.*

- 3) **Proposed measures to reduce or control noise impacts, if any:**

*Noise associated with construction activities will be required to meet federal, state and local noise regulations.*

## 8. Land and Shoreline Use

- a. **What is the current use of the site and adjacent properties?**

*The Overdale Service Area, that is the subject of the 2012 Plan Amendment, is single-family residential. The areas to the west and north are primarily single-family residential, with commercial uses starting near the southwestern corner. The areas to the south and east are multi-family residential.*



**b. Has the site been used for agriculture? If so, describe.**

*No.*

**c. Describe any structures on the site.**

*The Overdale Service Area, that is the subject of the 2012 Plan Amendment, includes approximately 142 single-family houses and their accessory structures. The Overdale Water System currently includes a water storage tank and a building that houses a booster pump station and well.*

**d. Will any structures be demolished? If so what?**

*The 2012 Plan Amendment is a non-project action. However, the subsequent Overdale Integration Project anticipates demolition of the existing 37,000 gallon Overdale Water storage tank. In addition, there is potential that the Overdale Upper Booster Station building may be demolished, and a new building constructed.*

**e. What is the current zoning classification of the site?**

*The majority of the Overdale Service Area, that is the subject of the 2012 Plan Amendment, is zoned SF-E, Single-Family Estates, with a density of 1.24 dwelling units per acre. The remaining properties are zoned SF-S, Single Family Suburban, with a density of 4.5 dwelling units per acre.*

**f. What is the current comprehensive plan designation of the site?**

*Urban.*

**g. If applicable, what is the current shoreline master program designation of the site.**

*The Overdale Service Area is not included in any Issaquah Shoreline Program Area.*

**h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.**

*A portion of the Overdale Service Area has been identified as a Class 3 –High Aquifer Recharge Area.*

**i. Approximately how many people would the completed project displace?**

*None.*

**j. Approximately how many people would reside or work in the completed project?**

*The Overdale Service Area includes a population estimated at approximately 423 people.*

**k. Proposed measures to avoid or reduce displacement impacts, if any:**

*The integration of the Overdale Water System to the District should not result in the displacement of any people.*

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:**

*The 2012 Plan Amendment is required to comply with the City of Issaquah and King County growth management plans, and will be submitted to the City of Issaquah, King County and Washington State Department of Health for approval.*

**9. Housing**

- 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.*

- c. Proposed measures to reduce or control housing impacts, if any:**

*Not applicable.*

**10. Aesthetics**

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building materials(s) proposed?**

*The 2012 Plan Amendment is a non-project action. However, the subsequent Overdale Integration Project includes work associated with the Overdale Upper Booster Station building. The building is and will continue to be a small one story building, with either cinderblock, wood or metal siding.*

- b. What views in the immediate vicinity would be altered or obstructed?**

*The existing Overdale storage tank, approximately 50 feet tall, is proposed to be removed as part of the Overdale Integration Project.*

- c. Proposed measures to reduce or control aesthetic impacts, if any:**

*The 2012 Plan Amendment is a non-project action. However, any new building materials proposed for the renovation of the Overdale Upper Booster Station Building as part of the Overdale Integration Project will consider the aesthetics of the finished project.*

**11. Light and Glare**

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?**

*None.*

- b. Could light or glare from the finished project be a safety hazard or interfere with views?**

*No.*

- c. **What existing off-site sources of light or glare may affect your proposal?**

*None.*

- d. **Proposed measures to reduce or control light and glare impacts, if any:**

*None.*

## 12. Recreation

- a. **What designated and informal recreational opportunities are in the immediate vicinity?**

*The Overdale Homeowners Association, of which many of the Overdale Service Area property owners are members, has a passive park property adjacent to the south side of the Overdale Service Area. Lake Sammamish State Park is located approximately 1 mile from the Overdale Service Area.*

- b. **Would the proposed project displace any existing recreational uses? If so, describe.**

*No.*

- c. **Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

*None.*

## 13. Historic and Cultural Preservation

- a. **Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, general describe.**

*None known.*

- b. **Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.**

*Not Applicable.*

- c. **Proposed measures to reduce or control impacts, if any:**

*None.*

## 14. Transportation

- a. **Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.**

*The Overdale Service Area is located east of East Lake Sammamish Pkwy SE and west of Issaquah-Fall City Road. SE 56th Street provides the main access to the area from the west, and SE 58th Street from the east.*

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?**

*There is no public transit service within the Overdale Service Area, but Metro Routes 269 provides bus service within 1/2 mile.*

- c. How many parking spaces would the completed project have? How many would the project eliminate?**

*The 2012 Plan Amendment is a non-project action. However, the facilities associated with the Overdale Integration Project would have parking for a District vehicle at the Overdale Upper Booster Pump Station. There is currently parking available at this facility proposed for renovation.*

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).**

*No.*

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, general describe.**

*No.*

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.**

*Operation and maintenance of the water system in the Overdale Service Area will require a small number of vehicular trips including reading meters throughout the area every two months, and service to the Overdale Upper Booster Station approximately 3 to 5 times per week.*

- g. Proposed measures to reduce or control transportation impacts, if any:**

*None.*

## **15. Public Service**

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.**

*The 2012 Plan Amendment will provide for transfer of operation of the water system in the Overdale Service Area to the District. It is not anticipated that there will be an increased need for other public services.*

- b. Proposed measures to reduce or control direct impacts on public services, if any.**

*None.*

**16. Utilities**

a. Check utilities currently available at the site:

electricity  
 natural gas  
 water  
 refuse services  
 telephone  
 limited sanitary sewer  
 septic system  
 other

b. Describe the utilities that are proposed for the project, the utility providing the services, and the general construction activities on the site or in the immediate vicinity which might be needed.

**C. SIGNATURE**

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: \_\_\_\_\_

  
Jay Regenstreif, P.E.

Date Submitted: February 7, 2012

## Supplemental Sheet for Nonproject 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 than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase the discharge to water, emission to air, production, storage, or release of toxic or hazardous substances; or production of noise?

*The 2012 Plan Amendment foresees implementation of the Overdale Integration Project. While there may be increases in noise and emissions to air associated with construction activities to implement the project, there should be no long term increases.*

Proposed measures to avoid or reduce such increases are:

*Use of proper construction practices should limit the impacts during construction of the subsequent Overdale Integration Project.*

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

*Construction associated with the Overdale Integration Project would likely temporarily affect vegetation in non-roadway areas and areas disturbed by construction may be more susceptible to erosion and stormwater runoff. These impacts would be temporary. There are no long term impacts anticipated.*

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

*Require the use of best-management practices during construction, following temporary sedimentation and erosion control plans developed in compliance with the City of Issaquah regulations to minimize impacts.*

3. How would the proposal be likely to deplete energy or natural resources?

*Implementation of the Overdale Integration Project and subsequent transfer and operation and maintenance of the water system in the Overdale Service Area by the District should not increase the use of energy or natural resources.*

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 location of the Overdale Integration Project does not anticipate work in environmentally sensitive areas.*

Proposed measures to protect such resources or to avoid or reduce impacts are:

*Not applicable.*

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 transfer of operation and maintenance of the water system in the Overdale Service Area to the District should not change or alter the land uses in the area. The zoning for the area is set by the City of Issaquah.*

Proposed measures to avoid or reduce shoreline and land use impacts are:

*Not applicable.*

6. How would the proposal be likely to increase demands on public transportation or public services and utilities?

*The transfer of operation and maintenance of the water system in the Overdale Service Area to the District should not increase demands on public transportation or public services and utilities.*

Proposed measures to reduce or respond to such demands are:

*Not applicable.*

7. Identify, if possible, whether the proposal may conflict with local, State, or Federal laws or requirements for the protection of the environment.

*The 2012 Plan Amendment should not conflict with applicable laws and requirements for the protection of the environment.*

