POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

KING COUNTY, Appellant, v. WASHINGTON STATE DEPARTMENT OF ECOLOGY, Respondent.	Case No. 21-083 **KING COUNTY'S MOTION FOR STAY**

I. INTRODUCTION

King County ("County") moves the Pollution Control Hearings Board ("Board") for a stay of the effect of the Department of Ecology's ("Ecology") issuance of the Puget Sound Nutrient General Permit ("PSNGP" or "Permit") as it applies to the County. The Permit regulates the discharge of nutrients, including total inorganic nitrogen ("TIN"), from publicly owned domestic wastewater treatment plants ("WWTPs") to the Washington waters of the Salish Sea. Fact Sheet for the Puget Sound Nutrient General Permit ("Fact Sheet") at 2. The PSNGP requires the County, by March 1, 2022, to apply for coverage under the PSNGP for its four WWTPs that discharge to Puget Sound: the Brightwater, South, Vashon, and West Point WWTPs.

The Board should grant the stay because the County is likely to succeed on the merits of the appeal and because the PSNGP will cause the County irreparable harm if the stay is not granted. The County is likely to succeed on the merits for the reasons set forth in the County's

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Notice of Appeal. These reasons include but are not limited to the PSNGP's inconsistency with the federal Clean Water Act ("CWA"), 33 U.S.C. §§ 1251-1387, and state law by requiring the County to apply for and obtain coverage under the PSNGP when the County's WWTP discharges are already authorized and regulated under individual National Pollutant Discharge Elimination System ("NPDES") permits; by simultaneously regulating these discharges under both the PSNGP and the WWTPs' individual permits; and by effectively modifying the County's four individual NPDES permits without complying with permit modification procedures and requirements.

In addition, the County is likely to succeed on the merits of its challenge to PSNGP Condition S3, which is arbitrary, internally inconsistent, and contrary to the CWA. PSNGP Condition S3.A prohibits permittees from causing or contributing to violations of water quality standards, and Ecology has concluded that the current nutrient discharges from all 58 WWTPs that are subject to the PSNGP are contributing to violations of the water quality standards for dissolved oxygen in Puget Sound. Fact Sheet at 32-33. Condition S3.B, however, authorizes permittees to continue discharging at their current levels as long as they comply with the other provisions of the PSNGP. Obviously, the permittees' current nutrient discharges cannot be both compliant and non-compliant with the PSNGP at the same time. Moreover, there is no legal basis for this internally inconsistent provision because it is neither an effluent limit nor any other NPDES permit condition authorized by the CWA or state law. The only effect of Condition S3 is to immediately subject the County and other PSNGP permittees to potential liability, including CWA penalties as high as $56,460 per day per violation. *See* 33 U.S.C. § 1319(d); 40 C.F.R. § 19.4.

The County will also suffer irreparable harm if the Board does not stay the PSNGP. The PSNGP requires the County to immediately devote thousands of hours of employee time, vast amounts of County resources, and tens of millions of ratepayers' dollars to immediately begin complying with the PSNGP's treatment system "optimization" and other requirements.

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Compliance with these requirements will also cause the County to forgo or delay upgrades to existing WWTPs that are needed to maintain system reliability, prevent wastewater from bypassing treatment systems, and improve treatment performance. In addition, the treatment system optimization measures required by the PSNGP are likely to cause the County to violate the conditions of its WWTPs' individual NPDES permit conditions.

Furthermore, the requirements of the PSNGP are likely to be for naught. PSNGP Condition S4.E requires all WWTPs designated as "dominant," including three of the four County WWTPs, to prepare an evaluation report to demonstrate how the County will achieve a seasonal TIN effluent limit of 3 milligrams per liter ("mg/L"), based on Ecology's belief that dischargers subject to the PSNGP will ultimately need to meet that or an even more stringent TIN effluent limit. To achieve a limit that low, the County will be required to employ tertiary treatment, which none of its existing WWTPs can be retrofitted to employ. This means that the County would have to build new WWTPs, thereby wasting the tens of millions of dollars that the PSNGP will require it to invest in "optimizing" its current WWTPs.

This Motion is supported by the accompanying Declaration of Christie True, King County's Director of Natural Resources. A copy of the PSNGP and its accompanying Fact Sheet were filed in support of the County's Notice of Appeal, which has been filed contemporaneously with this Motion.

II. FACTS

A. The PSNGP

Ecology issued the PSNGP on December 1, 2021. The Permit becomes effective on January 1, 2022, and expires on December 31, 2026. The Permit, which is a general NPDES permit issued pursuant to the CWA and RCW 90.48, applies to discharges of nutrients from the 58 WWTPs identified in the Permit that discharge directly to the Washington waters of the Salish Sea, including Puget Sound. *See* PSNGP Cover Page, Condition S1.A.

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The Permit *requires* the County to apply for coverage under the Permit by March 1, 2022, for each of its four WWTPs that discharge to Puget Sound. Condition S2.A. But each of these WWTPs is already fully authorized to discharge treated wastewater to Puget Sound, including the nutrients contained in the wastewater, by individual NPDES permits issued by Ecology. Specifically, the County's Brightwater WWTP is authorized to discharge "treated domestic wastewater to Puget Sound" by individual NPDES permit number WA0032247 (attached as Ex. A), its South WWTP is authorized to discharge "treated municipal wastewater to the Puget Sound" by individual NPDES permit number WA0029581 (attached as Ex. B), its West Point WWTP is authorized to discharge "treated municipal wastewater" to Puget Sound by individual NPDES permit number WA0029181 (attached as Ex. C), and its Vashon WWTP is authorized to discharge "treated domestic wastewater to the Puget Sound" by individual NPDES permit number WA022527 (attached as Ex. D).[1]

Because the County cannot "opt out" of coverage under the PSNGP, discharges from each of the four County WWTPs will be simultaneously regulated by both the PSNGP and the WWTP's individual NPDES permit.

B. PSNGP Requirements

The PSNGP requires the County to immediately begin complying with a number of onerous requirements, including but not limited to the following: Conditions S7 and S9 require additional sampling, monitoring, and reporting requirements for each of the County's WWTPs, including monitoring for TIN. Conditions S4.C and S6.B require developing and implementing for each of the WWTPs a Nitrogen Optimization Plan to maximize nitrogen removal. Condition S4.B establishes annual TIN discharge "action levels" for the three County WWTPs

[1] The individual NPDES permit for the Brightwater WWTP expires on February 28, 2023. The individual NPDES permits for the South WWTP and West Point WWTP expired on July 31, 2020, and January 31, 2020, respectively, but they remain in effect pending Ecology's final action on the County's timely and pending permit renewal applications. *See* WAC 173-220-180(5). The individual NPDES permit for the Vashon WWTP expires on February 28, 2022, but will remain in effect thereafter until Ecology takes final action on the County's timely and pending permit renewal application. *See id.*

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designated by the PSNGP as "dominant" TIN dischargers, which Ecology asserts are based on their current TIN discharge levels. Condition S4.D requires the County to take various corrective actions if these action levels are not met. Condition S4.E requires a Nutrient Reduction Evaluation for the County's three dominant WWTPs to identify treatment technologies that provide "all known, available, and reasonable methods of prevention, control, and treatment" ("AKART") for nitrogen on an annual basis and to achieve a TIN discharge concentration of 3 mg/L on a seasonal (April through October) basis. Condition S6.C requires an AKART analysis for nitrogen removal for the County's Vashon WWTP. In addition, Condition S3.A prohibits causing or contributing to a violation of surface water quality standards.

C. Effects on the County

As detailed in the accompanying Declaration of Christie True, the PSNGP imposes immediate and substantial obligations on the County. Satisfying these obligations will require a significant amount of staff and outside consultant time and effort and will cost the County *tens of millions of dollars in the next two years*, in addition to continuing to comply with all the requirements of its WWTPs' individual NPDES permits, which will remain fully in effect. True Decl. ¶ 6.

Compliance with the PSNGP's enhanced monitoring and reporting requirements will immediately require the County to hire two new staffers and incur other costs of about $350,000 annually. True Decl. ¶ 7.

Compliance with the PSNGP's Nitrogen Optimization Plan requirements will require the County to immediately begin developing, preparing, and implementing the plans for each of its WWTPs. PSNGP Condition S4.C.1.c requires the County to identify and select viable optimization strategies for each of its three "dominant" WWTPs by July 1, 2022, and Condition S6.B.1.b requires the County to identify the optimization strategy selected for its Vashon WWTP by December 31, 2022. True Decl. ¶ 8. The County estimates that developing and implementing

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these plans will result in labor and outside consulting costs totaling $2.4 million for the first two years. *See* True Decl. ¶ 9. In addition, the County will have increased operating and maintenance costs associated with optimization, which are estimated to be $950,000 annually, and it estimates that the capital cost to implement the selected optimization strategies (*e.g.,* installing new equipment) to be $5 million a year per plant. *Id.*

The immediate implementation of the PSNGP optimization requirement will adversely affect the ability of the County to complete other major capital project upgrades currently scheduled. True Decl. ¶ 10. This will have a cascading negative effect across the County's capital program, including the reassignment of project managers, engineers, operations staff, and construction managers, which will delay ongoing capital projects that are needed to increase system reliability, maintain system capacity, reduce overflows, and maintain compliance with the County's individual NPDES permits. *Id.* This increases the risk of equipment failures and may result in an increase in plant bypasses, secondary treatment bypasses, increased risks to worker safety, and, ultimately, harm to the environment. *Id.* Furthermore, the immediate implementation of nitrogen optimization strategies at each WWTP has the potential to cause other changes in the quality of the wastewater discharged from the WWTPs, and violations of the discharge limits in the WWTPs individual NPDES permits. True Decl. ¶ 11.

These efforts and expenses are ultimately also likely to be for naught. PSNGP Condition S4.E requires the County to determine how each of the three dominant WWTPs will achieve a seasonal TIN discharge concentration of 3 mg/l because Ecology expects that future iterations of the PSNGP will include equally or even more stringent TIN discharge limits. True Decl. ¶ 17. Achieving TIN discharge limits as low as 3 mg/L will require tertiary treatment processes. True Decl. ¶ 18. For that to happen, the County will have to build new WWTPs because its existing plants were not built to remove TIN and cannot be retrofitted to accommodate tertiary treatment. *Id.* This means that if the PSNGP is not stayed, the County will be forced to take all the measures described above, and spend tens of millions of ratepayers'

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dollars in the process, only to have that significant expenditure wasted when the County is forced to build new WWTPs that employ aggressive tertiary treatment methods. True Decl. ¶ 19.

III. ARGUMENT

A. Standard for Stay

Pursuant to WAC 371-08-415, the Board may stay the effect of the PSNGP. The County makes a *prima facie* case for a stay if it "demonstrates *either* a likelihood of success on the merits of the appeal *or* irreparable harm." WAC 371-08-415(4) (emphasis added). Upon such a demonstration, the Board must grant the stay unless Ecology demonstrates either (i) "[a] substantial probability of success on the merits" or (ii) a "[l]ikelihood of success and an overriding public interest which justifies denial of the stay." WAC 371-08-415(4)(a)-(b). Likelihood of success on the merits "does not require the moving party to demonstrate that it will conclusively win on the merits, but only that there are questions 'so serious … as to make them fair ground for litigation and thus for more deliberative investigation.'" *Airport Communities Coal. v. Ecology*, PCHB No. 01-160 (Order Granting Motion to Stay Effectiveness of Section 401 Certification) (Dec. 17, 2001) (ellipsis in original; citation omitted). "The evaluation of the likely outcome on the merits is based on a sliding scale that balances the comparative injuries that the parties and non-parties may suffer if a stay is granted or denied." *Id.* The moving party's showing of likelihood of success on the merits need not be as strong where the non-moving party would suffer little or no harm. *Id.* The Board, after granting or denying a stay request, shall "expedite the hearing and decision on the merits," unless otherwise stipulated by the parties. WAC 371-08-415(5).

B. The County Has a Likelihood of Success on the Merits

The Board reviews the terms of an NPDES permit to determine if it is "invalid in any respect," and whether it is consistent with applicable legal requirements. WAC 371-08-540(2); *Puget Soundkeeper All. v. Ecology*, PCHB No. 15-050 (Order Granting Respondents' Motion for Summary Judgment, Jan. 6, 2016).

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As described in detail below, the PSNGP is invalid in multiple respects and is not consistent with either state or federal regulations. Accordingly, the County is likely to succeed on the merits, and the PSNGP must be stayed.

1. *Federal and State NPDES Permit Regulations Prohibit Ecology from Requiring Coverage Under a General NPDES Permit*

Each of the County's four WWTPs have coverage under individual NPDES permits. Exhibit A-D. Yet, PSNGP Condition S2 *requires* the County to apply for and obtain coverage under the PSNGP for each of its four WWTPs. For the 58 WWTPs listed in the PSNGP, including the County's four WWTPs, coverage under the PSNGP is *mandatory*. This *mandatory* general permit coverage is contrary to both the federal regulations implementing the CWA and Ecology's own regulations.

The federal regulations explicitly prohibit Ecology from developing general permits that cover the same discharges that are authorized by individual permits. 40 C.F.R. § 122.28(a)(1) ("The general permit shall be written to cover one or more categories or subcategories of discharges … *except those covered by individual permits*…." (emphasis added)). If Ecology assigns general NPDES permit coverage to a discharger that does not have permit coverage, the discharger must be allowed to request an individual permit. *See id.* § 122.28(b)(2)(vi). And even a discharger that has obtained coverage under a general permit may request to be excluded from coverage under the general permit by applying for and obtaining an individual NPDES permit. *Id.* § 122.28(b)(3)(iii) ("Any owner or operator authorized by a general permit may request to be excluded from the coverage of the general permit by applying for an individual permit."); *id.* § 122.28(b)(3)(iv).

The federal regulations are permissive in that they allow, but do not require, a discharger covered by an individual permit to apply for coverage under a general permit. *Id.* § 122.28(b)(3)(v) ("A source excluded from a general permit solely because it already has an individual permit *may* request that the individual permit be revoked, and that it be covered by the

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general permit." (emphasis added)). But the regulations do not allow Ecology to mandate coverage under a general permit. Instead, as the U.S. Environmental Protection Agency ("EPA") explained in the final rule promulgating the general permit regulations, "individual permittees can request to be covered by [a] general permit, and vice versa." Final Rule, National Pollutant Discharge Elimination System; Revision of Regulations, 44 Fed. Reg. 32,854, 32,874 (June 7, 1979).

Ecology's own regulations allow dischargers to choose to be regulated under a general permit. WAC 173-226-200(1) ("[A]ll dischargers *who desire to be covered* under the general permit shall notify the department of that fact…." (emphasis added)). Where a discharger has chosen to be covered under a general permit, the regulations specifically allow that discharger to subsequently "request to be excluded from coverage under the general permit by applying for and being issued an individual permit." WAC 173-226-080(3). If the discharger requests to be excluded from the general permit, "[t]he director *shall* either issue an individual permit or deny the request with a statement explaining the reason for denial." *Id.* (emphasis added); *see also* WAC 173-226-240(4) (same). "When an individual permit is issued to a discharger otherwise subject to a general permit, the applicability of the general permit to that permittee is automatically terminated on the effective date of the individual permit." WAC 173-226-080(4).

In direct contravention of the regulations, which allow dischargers discretion whether to apply for coverage under a general permit or apply for individual permit coverage, and which expressly prohibit requiring coverage under a general permit for a discharger already covered by an individual permit, the PSNGP *mandates* that the 58 listed WWTPs apply for and obtain coverage under the PSNGP for the same discharges that are already covered by their individual NPDES permits. Condition S2.A; Fact Sheet at 13 (listing "[d]ischargers that must apply for coverage under this … general permit"). Each of the four County WWTPs has an individual NPDES permit that authorizes discharges of treated wastewater subject to the conditions of those permits, including discharges of the nutrients that would be authorized by the PSNGP. Because

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the PSNGP violates these regulations, it is invalid insofar as it requires the listed facilities, including the County's four WWTPs, to apply for and obtain coverage under it.

2. *Federal and State NPDES Permit Regulations Prohibit Ecology from Regulating the Same Discharge Under Both a General and an Individual NPDES Permit*

The PSNGP is similarly unlawful because the nutrient discharges that it would authorize and regulate would simultaneously be authorized and regulated by the 58 facilities' individual NPDES permits, including those for the four County WWTPs. Ecology's Fact Sheet explains that

> Ecology currently issues individual NPDES permits to municipal wastewater treatment plants. The PSNGP addresses the discharge of nutrient pollution from POTWs that hold an existing, individual NPDES permit.

Fact Sheet at 2. The individual NPDES permits for the County's four WWTPs comprehensively regulate the discharge of effluent from the County's WWTPs by setting effluent limitations along with requirements related to monitoring, recordkeeping, reporting, design, operations, and maintenance, among others. The PSNGP imposes additional monitoring, recordkeeping, and reporting requirements on the County while purporting to authorize discharges of nutrients—something that is *already authorized* by the individual permit for each of the County's WWTPs. Yet, the PSNGP does not fully authorize discharges from the County's WWTPs; it only purports to authorize nutrient discharges, so the County cannot terminate the individual NPDES permits upon obtaining coverage under the PSNGP, as required by the regulations. Instead, the County must maintain its individual NPDES permits even after obtaining coverage under the PSNGP. This mandatory dual permit coverage is contrary to both EPA's and Ecology's regulations.

Both EPA and Ecology's regulations prescribe a binary system where discharges are covered either by an individual permit or by a general permit. WAC 173-226-020 ("No pollutants shall be discharged to waters of the state from any point source, except as authorized by an individual permit … *or* as authorized through coverage under a general permit….")

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(emphasis added)). The federal regulations explicitly prohibit writing a general permit for dischargers covered by an individual permit. 40 C.F.R. § 122.28(a)(1) ("The general permit shall be written to cover one or more categories of discharges … except those covered by individual permits….").

The regulations provide that "[w]hen an individual NPDES permit is issued to an owner or operator otherwise subject to a general NPDES permit, the applicability of the general permit to the individual NPDES permittee *is automatically terminated* on the effective date of the individual permit." 40 C.F.R. § 122.28(b)(3)(iv) (emphasis added); *see also* WAC 173-226-080(4) (same), -200(7) (same). The federal regulations further specify that "[a] source excluded from a general permit solely because it already has an individual permit may request that the individual permit be revoked, and that it be covered by the general permit." 40 C.F.R. § 122.28(b)(3)(v). These regulations specifically prevent a discharger from obtaining coverage under both a general and individual permit for the same discharge at the same time. Instead, the regulation requires that coverage under a general permit automatically terminates when a general permit is issued. Likewise, general permit coverage may only be obtained when an individual permit is fully revoked.

Ecology's own regulations recognize this distinction by defining "General Permit" as "a permit that covers multiple dischargers of a point source category within a designated geographical area, *in lieu of individual permits being issued to each discharger*." WAC 173-226-030(13) (emphasis added). Yet, the PSNGP is not in lieu of individual permits, but is in addition to individual permits contrary to both EPA's and Ecology's regulations.

Because discharges from the four County WWTPs that are required to obtain coverage under the PSNGP are already fully authorized by their individual NPDES permits, Ecology cannot require coverage for and regulate the same discharges under the PSNGP. The PSNGP is therefore unlawful and invalid as it applies to the County's WWTPs and all other WWTPs whose discharges are fully authorized by individual NPDES permits.

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3. *The PSNGP Impermissibly Modifies the County's Individual NPDES Permits*

The individual NPDES permits for the four County WWTPs that are subject to the PSNGP authorize discharges to Puget Sound of treated wastewater, which includes nutrients, subject only to the conditions of those permits. The PSNGP imposes substantial additional requirements on these authorized discharges. This impermissibly modifies the requirements of the individual permits without adhering to the NPDES permit modification procedures mandated by the applicable federal and state NPDES permitting regulations.

As the Board explained in *Citizens Against SeaTac Expansion v. Ecology*, "an entity that already has an effective permit does not need to apply for an NPDES permit" when the entity, Ecology, or an interested person seeks a modification of the permit. PCHB No. 01-090 (Order Denying Stay, Aug. 29, 2001) (internal quotation marks omitted) (citing 40 C.F.R. § 122.21(a)(1)). Rather, if an entity, Ecology, or an interested person wishes to modify an existing permit, they must comply with 40 C.F.R. § 124.5, applicable to modification, revocation, reissuance, and termination of an existing NPDES permit. *Citizens Against SeaTac Expansion v. Ecology*, PCHB No. 01-090 (Order Granting Summary Judgment, Jan. 4, 2002). Permits may only be modified for the reasons specified in 40 C.F.R. § 122.62, unless they are minor modifications. *Id.*

The PSNGP purports to authorize permittees who obtain coverage under the PSNGP to "discharge nutrients." But the County's WWTPs are already fully authorized to discharge wastewater, which necessarily contains nutrients, as the PSNGP recognizes. *See* Fact Sheet at 12. Functionally, the PSNGP does not authorize the discharge of anything. The only legal effect of the PSNGP is to modify the effluent limits, monitoring requirements, reporting requirements, and other conditions of the individual NPDES permits that the County already holds.

Individual permits can only be modified for one of the 18 enumerated causes specified in 40 C.F.R. § 122.62. *Puget Soundkeeper All. v. Ecology*, PCHB No. 15-050 (Order Granting Respondents' Motion for Summary Judgment, Jan. 6, 2016); *see also* WAC 173-220-

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150(1)(d), -190(1). Ecology has not identified any of the causes listed in 40 C.F.R. § 122.62 as a facility-specific reason for modifying the individual NPDES permits for the County's four WWTPs. Moreover, the individual NPDES permits for two of the WWTPs, South and West Point, have expired and therefore cannot be modified, only renewed. *See* 40 C.F.R. § 122.46(b); 49 Fed. Reg. 37,998, 38,045 (Sept. 26, 1984) ("Permits which have 'expired' cannot be modified. While expired permits may be continued in effect beyond the permit terms [pending final action on a permit renewal application], ... these permits may only be changed by reissuance.").

Even if Ecology had cause to modify the individual NPDES permits and the ability to do so, the regulations required Ecology to prepare draft permits addressing the individual permit modifications and to provide public notice and an opportunity for comment on each of the individual proposed permit modifications for the County's four WWTPs. *See* 40 C.F.R. §§ 124.5(c)(1), 124.6(d), 124.10(a)(1)(ii), (b)(1), (d)(1); WAC 173-220-190(3). Ecology did not do so.

The PSNGP modifies the requirements of the individual NPDES permits for the 58 facilities subject to the PSNGP, including the County's four WWTPs, by imposing additional NPDES permit requirements on the discharges from those facilities. Ecology has not identified a facility-specific cause for modifying the individual permits, and does not have the legal authority to modify the permits for two of the County's WWTPs. Even if Ecology did have cause and authority to modify the individual NPDES permits, it failed to comply with the permit modification procedures established by EPA's and Ecology's NPDES permit regulations. Therefore, the PSNGP is invalid as to the County's WWTPs and the other WWTPs subject to the Permit. Ecology cannot evade permit modification requirements and procedures by imposing a general permit on individually authorized discharges.

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4. *PSNGP Condition S3 Is Unreasonable and Unlawful Because It Has No Legal Basis and Is Inconsistent with Other PSNGP Provisions*

Condition S3.A prohibits discharges that cause or contribute to violations of water quality standards. The animating factor that led Ecology to issue the PSNGP and require the 58 dischargers subject to the Permit to obtain coverage under it is Ecology's determination that each of those individual WWTPs is causing or contributing to violations of the dissolved oxygen water quality standards by discharging TIN *at its current levels*. More specifically, the Fact Sheet states that

> nutrients, particularly inorganic nitrogen, discharged from domestic wastewater treatment plants contribute to low dissolved oxygen concentrations in Puget Sound that do not meet state water quality criteria.... The [modeled] circulation patterns showed how discharges in one basin can affect the water quality in other basins. Thus, all wastewater discharges to the greater Puget Sound area containing nitrogen currently contribute to existing DO [dissolved oxygen] impairments meeting the threshold for reasonable potential under 40 C.F.R. 122.44(d)(1)(iii).

Fact Sheet at 32-33.

Notwithstanding this assertion, the PSNGP authorizes each discharger subject to the PSNGP to continue discharging at what the PSNGP purports to be its current levels of TIN, subject to future evaluations that may result in unspecified reductions in TIN discharges. For example, Condition S4.B sets forth TIN action levels for each of the WWTPs classified by Ecology as "dominant dischargers" based on Ecology's calculation of the WWTP's *current* TIN discharges.[2] Similarly, although small WWTPs are not subject to action levels, Condition S6 allows them to continue discharging at their current TIN levels.

Furthermore, Condition S3.B includes a presumption that compliance with the monitoring, evaluation, optimization, corrective action, and other PSNGP requirements will result in compliance with water quality standards:

[2] Ecology has concluded that a facility subject to these action levels has a one percent chance of exceeding the action level, based on its current operations, in any given year.

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> Ecology presumes that a Permittee complies with water quality standards unless discharge monitoring data or other site-specific information demonstrates that a discharge causes or contributes to a violation of water quality standards, when the Permittee complies with the following conditions. The Permittee must fully comply with all permit conditions, including planning, optimization, corrective actions (as necessary), sampling, monitoring, reporting, waste management, and recordkeeping conditions.

Id. This means that, so long as an individual WWTP does not exceed its TIN action level (or if it does exceed that level, it undertakes the measures required in Condition S4.D), that individual WWTP is presumed by Ecology to be in compliance with the PSNGP. This is so even though Ecology has determined that each WWTP's current discharge is causing or contributing to a water quality standards violation, and even though Condition S3.A explicitly prohibits discharges that cause water quality standards violations.

Thus, the PSNGP is unreasonable and internally inconsistent. It purports to allow discharges in Conditions S4.B, S5.B, and S6 that Ecology believes contribute to water quality standard violations and that are expressly disallowed in Condition S3.A. In other words, the PSNGP presumes compliance with water quality standards only if the permittee complies with water quality standards.

In addition to being unreasonable and internally inconsistent, Condition S3 is unlawful because it has no legal basis. Having determined that discharges of nutrients from the WWTPs have a reasonable potential to cause or contribute to a water quality standards violation, Ecology is required to establish permit effluent limits for nutrients. *See* 40 C.F.R. § 122.44(d)(1)(i); *Nat. Res. Def. Council v. U.S. Env't Prot. Agency* ("*NRDC*"), 808 F.3d 556, 577 (2d Cir. 2015). If numeric effluent limits for nutrients are "infeasible," "[b]est management practices" may be used instead. 40 C.F.R. § 122.44(k)(3); *see NRDC*, 808 F.3d at 577. But Condition S3.A is neither a numeric effluent limit nor a best management practice.

The condition is not a numeric effluent limit because it does not tell the permittee, Ecology, or the public what discharge quality the WWTP must achieve. The court in *NRDC*

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rejected a general NPDES permit condition nearly identical to Condition S3.A for precisely that reason.

> This narrative standard is insufficient to give ... [the permittee] guidance as to what is expected or to allow any permitting authority to determine whether ... [the permittee] is violating water quality standards. By requiring ... [permittees] to control discharges "as necessary to meet applicable water quality standards" without giving specific guidance on the discharge limits, EPA fails to fulfill its duty to "regulat[e] in fact, not only in principle." ... [This condition], although found by EPA to be required ... in fact add[s] nothing.

808 F.3d at 578 (fourth brackets in original; citation omitted).

Condition S3.A is also not a "best management practice" that may be used in lieu of a numeric effluent limit. "Best management practices" are "schedules of *activities*, prohibitions of *practices*, maintenance *procedures*, and other *management practices* to prevent or reduce the pollution of 'waters of the United States.'" 40 C.F.R. § 122.2 (emphasis added). Condition S3.A, however, does not require or prohibit any activities, practices, or procedures. Therefore, it cannot serve as a narrative substitute for numeric effluent limits, even if numeric limits are "infeasible." *See NRDC*, 808 F.3d at 579 (holding that a general NPDES permit nearly identical to Condition S3 did not qualify as a best management practice); *see also Wash. State Dairy Fed'n v. State*, 18 Wn. App. 2d 259, 297, 490 P.3d 290 (2021) (holding that a general permit prohibition on violating water quality standards is "not an adequate effluent limitation").

Condition S3.A cannot be justified as a numeric or narrative effluent limit, nor does it have any other legal basis. Rather, the condition simply exposes each of the permittees to liability, including penalties of up to $56,460 per day per violation, *see* 33 U.S.C. § 1319(d); 40 C.F.R. § 19.4, if an after-the-fact determination is made that the permittee's discharges caused or contributed to a violation of water quality standards. Determinations of the discharge levels needed to meet water quality standards, however, must be made before the permit is issued and used to establish effluent limits so that the permittee can take the steps needed to comply with standards. *See NRDC*, 808 F.3d at 579-80 (rejecting argument that a permit condition requiring

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compliance with water quality standards is a sufficient water quality-based effluent limit because it allows standards to be met through enforcement or other corrective actions).

Because Condition S3 is unreasonable, inconsistent with other PSNGP conditions, and without any legal basis, it is unlawful and invalid.

C. The County Will Be Irreparably Harmed in the Absence of a Stay

In addition to the County's likelihood of success on the merits, a stay is warranted because the County and its ratepayers will be irreparably harmed by the PSNGP. Compliance with the PSNGP will require the County to immediately begin spending millions of dollars on monitoring, evaluation, and treatment system optimization. These efforts will divert funds and personnel from ongoing capital projects and other measures to ensure compliance with existing NPDES permits, improve reliability, and increase system capacity. In addition, the treatment system optimization measures required by the PSNGP could result in violations of the County's individual NPDES permit, and those potential violations and PSNGP Condition S3.A's immediate prohibition on contributing to violations of water quality standards could expose the County to substantial liability from an agency enforcement action or CWA citizen suit. And, ultimately, the measures required by the PSNGP may be for naught because they will not enable the County to achieve the 3 mg/L or less TIN discharge limit that Ecology expects to impose in future iterations of the PSNGP.[3]

The County must immediately begin to implement Condition S4.C.3, which requires the County to investigate ways to reduce TIN loads in its influent. The County has limited control

[3] As detailed in the True Declaration, the County will be required to spend at least $350,000 annually to comply with the enhanced influent and effluent monitoring requirements, $700,000 in the first two years to develop a Nitrogen Optimization Plan and Report for each of its WWTPs and $1.2 million to begin optimization implementation, $500,000 for outside consultants to assist with the optimization planning efforts in the first two years, and $950,000 annually in increased operation and maintenance costs. True Decl. ¶ 7. The County will have to divert at least seven staff members, and then eventually backfill their positions. *Id.* The County is also required to *immediately* implement the selected optimization strategy identified under Condition S4.C.1 and then document the implementation of the selected optimization strategy for each plant by March 2023, which will cost $5 million a year per plant. *Id.* ¶ 10.

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over the TIN load in its influent stream and will need to conduct extensive stakeholder engagement to even determine what options are feasible. True Decl. ¶ 16. The County estimates this will cost a minimum of $600,000 annually, simply to satisfy the staffing required for this effort. *Id.*

The County recognizes that expenditure of funds alone does not constitute irreparable harm under the stay regulations. *Martig Eng'g & Seashore Villa Mobile Home Park v. Ecology*, PCHB No. 03-013 (Order Denying Stay, Mar. 28, 2003). While these are significant costs that will directly impact King County ratepayers and citizens, the irreparable harm also arises from the enormous diversion of resources that will be required to immediately begin complying with the PSNGP. The immediate optimization requirements imposed by the PSNGP will have a cascading negative effect across the County's capital program, resulting in the reassignment of project managers, engineers, operations staff, and construction managers. True Decl. ¶ 10. It will result in the delay of capital projects that are needed to increase system reliability, maintain system capacity, reduce overflows, and maintain permit compliance. *Id.* As an example of a critically impacted program, the County's West Point Capital Improvement Program ("Program") has over $600 million of active and planned projects to improve the reliability of the West Point Treatment Plant. Staff currently assigned to the Program will now need to be reassigned to comply with the PSNGP. *Id.* This will result in the deferral of projects that are badly needed at West Point to improve reliability. *Id.* This increases the risk of equipment failures and may result in an increase in plant bypasses, secondary treatment bypasses, increased risks to worker safety, and, ultimately, harm to the environment.

Additionally, immediate implementation of nitrogen optimization strategies at each WWTP has the real potential to cause violations of individual NPDES permits. True Decl. ¶ 11. For example, the South Plant operates under NPDES Waste Discharge Permit No. WA0029581, which includes a pH limit and a prohibition on the bypass of sewage around the secondary treatment process. *Id.* Operating South Plant to biologically remove nitrogen will likely result in

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a violation of both these requirements due to reduced flow capacity and the existing configuration of the treatment plant. Condition S1.A of the NPDES Waste Discharge Permit No. WA0029581.

Further, if the County determines that a plant's annual TIN load exceeds its assigned action load (or, if applicable, the County's cumulative or "bubbled" load for all three dominant discharging plants), then the County must proceed to take the corrective actions identified in Condition S4.D. Based on the County's data, the current discharge of TIN in effluent from any of the three dominant County dischargers demonstrates that the action levels, or bubbled action level, are expected to be exceeded within the first permit cycle. True Decl. ¶ 12. When the County exceeds the action level, Condition S4.D requires the County to prepare a strategy, in the form of an engineering report, that identifies treatment options and design alternatives to reduce the annual effluent load by at least 10% below the action level. An engineering report sufficient to comply with the permit is estimated to cost $5 million for each plant. True Decl. ¶ 13. This will add to the cascading effect, further delaying critical capital improvements already in the planning phase.

Yet this enormous outlay of resources will likely be for naught. Although Ecology is requiring the County to spend tens of millions of dollars to immediately evaluate, optimize, and modify its existing treatment systems, it is simultaneously requiring permittees to determine how each of their WWTPs will comply with a 3 mg/l TIN discharge limit as part of the required "Nutrient Reduction Evaluation" required under Condition S4.E.3. Accordingly, Ecology is signaling that compliance with a 3 mg/L, or stricter, limit is what the agency is going to require in the future once it actually establishes AKART for domestic WWTPs that discharge nutrients to the Salish Sea, and once it determines what numeric water quality-based effluent limits are necessary for the County's four WWTPs to meet applicable dissolved oxygen water quality standards.

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To meet TIN discharge limits as low as 3 mg/L at the County's four WWTPs, the County will have to employ tertiary treatment processes. To achieve tertiary treatment, the County will have to build new WWTPs because its existing plants were not built to remove TIN and cannot be retrofitted to accommodate tertiary treatment. True Decl. ¶ 18.

This means that if the PSNGP is not stayed, the County will be forced to (1) immediately plan for and begin to optimize its four treatment plants; (ii) take the onerous corrective action dictated under the PSNGP (which may cause it to violate its individual permits); (iii) forgo or delay necessary improvements that it was otherwise planning at its four WWTPs; and (iv) spend tens of millions of ratepayer dollars in the process, only to have that expenditure wasted when the County is forced to employ tertiary treatment to meet aggressive treatment goals that will require the County to build new WWTPs altogether. True Decl. ¶ 19.

The Board has repeatedly held that, when an activity authorized or required under a permit is certain to have an irreparable impact, the appellant can demonstrate irreparable injury, even when the exact contours of the impact are not certain. *See Raymond A. Clough, Jr., v. Ecology*, PCHB No. 12-064 (Order Granting Partial Stay, Aug. 31, 2014) (finding irreparable harm to wetland from construction activities even though boundaries of wetland had not been delineated and actual harm was uncertain); *Carl & Dana Strode v. Ecology*, PCHB Nos. 11-085, 11-086, 11-089 (Order on Stay, Aug. 4, 2011) (finding irreparable harm from aquatic herbicide application even though exact location of herbicide application was not known).

Here, the County has demonstrated certain irreparable harm from the massive diversion of resources required to comply with the PSNGP when those compliance measures are likely to prove to have been wasted. This massive waste of resources will irreparably harm the County and its ratepayers.

The County will also be irreparably harmed because the internally inconsistent provisions of the PSNGP—on the one hand finding that the County's current TIN discharges are violating water quality standards, while on the other hand explicitly permitting the County to discharge

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TIN at current levels—will place the County at an immediate risk of an Ecology enforcement action or citizen suit under section 505 of the CWA and liability for violating the Act.

More specifically, the Permit presumes that permittees are in compliance with applicable water quality standards so long as the permittee strictly complies with the Permit. The PSNGP establishes "TIN action levels" (Condition S4.B) for each dominant WWTP discharger that Ecology asserts were established at current discharge levels. The PSNGP requires the dominant dischargers to discharge at or below those TIN action levels, and, if those action levels are exceeded, to take appropriate corrective action. *See generally* Condition S4.

Yet, at the same time, Ecology decided to issue the PSNGP and to make it immediately applicable to the County's four WWTPs, because Ecology has concluded that the current TIN discharges from the 58 covered WWTPs are causing or contributing to violations of the DO water quality standards. *See* Fact Sheet at 32-33 (explaining that modeling demonstrates that TIN collectively discharged from domestic wastewater treatment plants contributes to low dissolved oxygen concentrations in Puget Sound that do not meet water quality criteria).

In short, under Condition S3, Ecology has both authorized and prohibited the same discharge, rendering the County, and for that matter all dischargers covered under the Permit, susceptible to liability for discharging nutrients in amounts that Ecology has concluded violate the DO water quality standards. The inconsistent provisions of the Permit irreparably harm the County by subjecting it to legal liability as soon as the PSNGP takes effect.

Accordingly, the Board must stay the permit to preserve the status quo and prevent the irreparable loss of rights and waste of resources that will occur if the PSNGP is allowed to take effect before the Board is able to determine if the PSNGP is valid. *Raymond A. Clough, Jr. v. Ecology*, PCHB No. 12-064 (Order Granting Partial Stay, Aug. 31, 2012).

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DATED: December 28, 2021

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Attorneys for Appellant
King County

CERTIFICATE OF SERVICE

I, Lynn A. Stevens, certify and declare:

I am over the age of 18 years, make this Declaration based upon personal knowledge, and am competent to testify regarding the facts contained herein.

On December 28, 2021, I served true and correct copies of the document to which this certificate is attached on the following persons in the manner listed below:

The Department of Ecology
Appeals Coordinator/Processing Desk
300 Desmond Drive SE
Lacey, WA 98503
[ ] Via Facsimile
[■] Via U.S. Mail
[■] Via Legal Messenger
[ ] Via Federal Express

Bob Ferguson
Washington State Attorney General
Office of the Attorney General
Ecology Division
1125 Washington Street, SE
Olympia, WA 98501
[ ] Via Facsimile
[■] Via U.S. Mail
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The Pollution Control Hearings Board
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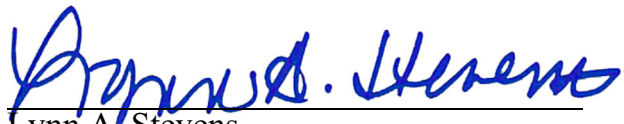
Tumwater, WA 98501
eluho@eluho.wa.gov
[ ] Via Facsimile
[■] Via U.S. Mail
[■] Via Email
[ ] Via Federal Express

I certify under penalty of perjury pursuant to the laws of the State of Washington that the foregoing is true and correct.

SIGNED on December 28, 2021, at Seattle, Washington.



Lynn A. Stevens

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EXHIBIT A

Issuance Date: February 26, 2018
Effective Date: March 01, 2018
Expiration Date: February 28, 2023

National Pollutant Discharge Elimination System
Waste Discharge Permit No. WA0032247

State of Washington
DEPARTMENT OF ECOLOGY
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq.

King County Department of Natural Resources and Parks,
Wastewater Treatment Division
King Street Center, KSC-NR-700
201 South Jackson Street
Seattle, Washington 98104-3855

is authorized to discharge in accordance with the Special and General Conditions that follow.

Plant Name: Brightwater Wastewater Treatment Plant (WWTP)	Receiving Water: Puget Sound
Plant Location: 22505 SR 9 SE, Woodinville, WA 98072	Discharge Locations: Outfall 001 *Diffuser 1* Latitude: 47.777138360 Longitude: -122.416948716 *Diffuser 2* Latitude: 47.776987265 Longitude: -122.417957020
Plant Type: Activated Sludge with Hollow Fiber Membranes; Chemically Enhanced Primary Treatment for Peak Wet Weather Flows	

Rachel McCrea
Water Quality Section Manager
Northwest Regional Office
Washington State Department of Ecology

Exhibit A

Table of Contents

Summary of Permit Report Submittals

This list is intended as a summary of submittal requirements in the permit and may not include all submittals required by the permit. The Permittee must refer to the Special and General Conditions of this permit for additional submittal requirements and submit reports according to their instructions.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report (DMR)	Monthly	04/15/2018
S3.A	Discharge Monitoring Report (DMR)	Quarterly	07/15/2018
S3.A	Discharge Monitoring Report (DMR)	Semiannual	01/15/2019
S3.A	Discharge Monitoring Report (DMR)	Annual	03/15/2019
S4.E	Wasteload Assessment	1/permit cycle	12/31/2022
S5.G.a.1	Operations and Maintenance Manual	1/permit cycle	07/31/2018
S5.G.a.3	Operations and Maintenance Manual Updates	1/permit cycle	09/01/2022
S6.A.4	Pretreatment Report	1/year	04/30/2018
S9.B	Wet Weather Bypass Annual Report	1/year	07/01/2018
S9.C	Utility Analysis Report	1/permit cycle	09/01/2022
S9.E	MBR Pilot Testing Report	1/permit cycle	07/31/2018
S10	Outfall Evaluation	1/permit cycle	12/01/2021
S11.A	Acute Toxicity Effluent Test Results for Permit Renewal	2/permit cycle	See condition for specific due dates
S12.A	Chronic Toxicity Effluent Test Results for Permit Renewal	2/permit cycle	See condition for specific due dates
S13	Application for Permit Renewal	1/permit cycle	09/01/2022

Special Conditions

S1. Discharge limits

S1.A. Effluent limits

All discharges and activities authorized by this permit must comply with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a level in excess of, that identified and authorized by this permit violates the terms and conditions of this permit.

Beginning on the effective date of this permit, the Permittee may discharge treated domestic wastewater to Puget Sound at the permitted location subject to compliance with the following limits:

Effluent Limits: Outfall 001 See discharge coordinates on cover sheet		
Parameter	**Average Monthly [a]**	**Average Weekly [b]**
Biochemical Oxygen Demand (5-day) (BOD_5)	30 milligrams/liter (mg/L) 10,233 pounds/day (lbs/day) 85% removal of influent BOD_5	45 mg/L 15,350 lbs/day
Total Suspended Solids (TSS)	30 mg/L 10,233 lbs/day 85% removal of influent TSS	45 mg/L 15,350 lbs/day
Total Residual Chlorine	0.5 mg/L	0.75mg/L
Parameter	**Minimum**	**Maximum**
pH	6.0 standard units	9.0 standard units
Parameter	**Monthly Geometric Mean**	**Weekly Geometric Mean**
Fecal Coliform Bacteria [c]	200/100 milliliter (mL)	400/100 mL

a	Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured. See footnote c for fecal coliform calculations.
b	Average weekly discharge limit means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges' measured during that week. See footnote c for fecal coliform calculations.
c	Ecology provides directions to calculate the monthly and the weekly geometric mean in publication No. 04-10-020, Information Manual for Treatment Plant Operators.

S1.B. Mixing zone authorization

Mixing zone for Outfall 001

The following paragraphs define the maximum boundaries of the mixing zones:

Chronic mixing zone

The mixing zone is a series of overlapping circles with radius of 794 feet measured from the center of each discharge port. The aggregate region of the mixing zone encompasses an oblong circular area measuring 2,088 feet long and 1,588 feet wide, centered around the 500-foot long diffuser. The mixing zone extends from the bottom to the top of the water column. The concentration of pollutants at the edge of the chronic zone must meet chronic aquatic life criteria and human health criteria.

Acute mixing zone

The acute mixing zone is a series of overlapping circles with radius of 79.4 feet measured from the center of each discharge port. The aggregate region of the mixing zone encompasses an oblong circular area measuring 658 feet long and 158.8 feet wide, centered around the 500-foot long diffuser. The mixing zone extends from the bottom to the top of the water column. The concentration of pollutants at the edge of the acute zone must meet acute aquatic life criteria.

Available Dilution (dilution factor)	
Acute Aquatic Life Criteria	115
Chronic Aquatic Life Criteria	238
Human Health Criteria - Carcinogen	511
Human Health Criteria - Non-carcinogen	415

S2. Monitoring requirements

S2.A. Monitoring schedule

The Permittee must monitor in accordance with the following schedule and the requirements specified in Appendix A.

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
(1) Wastewater influent, monitored at Headworks			
Wastewater Influent means the raw sewage flow from the collection system into the treatment facility. Sample the wastewater entering the headworks of the treatment plant excluding any side-stream returns from inside the plant.			
Flow	MGD	Continuous [a]	Metered/Recorded
BOD_5	mg/L	5/week	24-hr Composite [b]
BOD_5	lbs/day	5/week	Calculation [c]
TSS	mg/L	5/week	24-hr Composite
TSS	lbs/day	5/week	Calculation

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
(2) Final wastewater effluent, monitored at the Influent Pump Station (IPS)			
Final Wastewater Effluent means wastewater exiting the last treatment process or operation. Typically, this is after or at the exit from the chlorine contact chamber or other disinfection process. The Permittee may take effluent samples for the BOD_5 analysis before or after the disinfection process. If taken after, the Permittee must dechlorinate and reseed the sample.			
Flow	MGD	Continuous	Metered/recorded
BOD_5	mg/L	5/week	24-hr Composite
BOD_5	lbs/day	5/week	Calculation
BOD_5	% removal	1/month	Calculation [d]
TSS	mg/L	5/week	24-hr Composite
TSS	lbs/day	5/week	Calculation
TSS	% removal	1/month	Calculation [d]
Total Residual Chlorine	mg/L	Continuous	Metered/recorded [e]
pH [f]	Standard Units	Continuous	Metered/recorded
Fecal Coliform [g]	# /100 ml	5/week	Grab
Total Phosphorus	mg/L as P	1/Month	24-hr Composite
Soluble Reactive Phosphorus	mg/L as P	1/Month	24-hr Composite
Total Ammonia	mg/L as N	1/Month	24-hr Composite
Nitrate plus Nitrite Nitrogen	mg/L as N	1/Month	24-hr Composite
Total Kjeldahl Nitrogen (TKN)	mg/L as N	1/Month	24-hr Composite
(3) Wet weather bypass, monitored at the Chemically-Enhanced Primary Clarifier Effluent Channel			
The Permittee must monitor and report the following parameters for each split stream flow event in which the Permittee diverts a portion of the plant's influent to chemically enhanced primary treatment and bypasses the MBR treatment system. All parameters are monitored at the effluent channel of the active chemically enhanced primary clarifier(s), unless otherwise noted. See Special Condition S9 for additional requirements for wet weather bypasses.			
Calculated Membrane Flow Capacity	MGD	1/day [h]	Calculation [i]
Maximum Membrane TMP [j]	Pounds per square inch (psi)	1/day [h]	Measurement
Headworks Flow Rate [k]	MGD	1/day [h]	Measurement
Total Volume	Million Gallons (MG)	1/day [h]	Calculation
Total Duration of Bypass	Hours	1/day [h]	Measurement
Total Storm Duration [L]	Hours	1/day [h]	Measurement
Total Precipitation [m]	Inches	1/day [h]	Measurement or Calculation
BOD_5	mg/L	1/day [h]	Composite [n]
BOD_5	% removal	1/day [h]	Calculation [d]
TSS	mg/L	1/day [h]	Composite [n]
TSS	% removal	1/day [h]	Calculation [d]
pH	Standard Units	1/day [h]	Measurement
Priority Pollutants (PP) – Total Metals	µg/L; nanograms(ng/L) for mercury	2/year [o]	Composite [n] Grab for mercury [p]

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
(4) Priority pollutant testing, monitored in influent at Headworks, effluent at IPS, and in biosolids			
The Permittee must monitor the following parameters in the influent at the headworks, and biosolids in accordance with the Pretreatment requirements in Special Condition S6.B. The Permittee must also monitor effluent at the IPS in accordance with the Pretreatment requirements in Special Conditions S6.B and as required by the NPDES permit application. The schedule for pH below applies only to influent and biosolids since the effluent monitoring schedule above requires more frequent effluent monitoring for that parameter. Oil and grease monitoring applies only to influent and effluent.			
pH (influent and biosolids)	Standard units	1/quarter	Grab
Oil and Grease (influent and effluent)	mg/L	1/quarter	Grab
Cyanide	micrograms/liter (µg/L)	1/quarter	Grab
Total Phenolic Compounds	µg/L	1/quarter	Grab
PP – Total Metals	µg/L; nanograms (ng/L) for mercury	1/quarter	24-Hour composite Grab for mercury [p]
PP – Volatile Organic Compounds	µg/L	1/year	Manual Composite [q]
PP – Acid-extractable Compounds	µg/L	1/year	24-Hour composite
PP – Base-neutral Compounds	µg/L	1/year	24-Hour composite
PP – Pesticides/PCB Compounds	µg/L	1/year	24-Hour composite
(5) Permit renewal application requirements – final effluent monitored at IPS			
This section includes parameters required by the application that are not otherwise required by routine monitoring. The Permittee must report results with quarterly monitoring listed above			
Temperature	Degrees Celsius	1/quarter	Grab
Dissolved Oxygen	mg/L	1/quarter	Grab
Total Dissolved Solids	mg/L	1/quarter	Grab
Total Hardness	mg/L	1/quarter	Grab
(6) Whole effluent toxicity testing – final wastewater effluent			
Acute Toxicity Testing	See condition S11 for testing requirements	2/permit cycle during months specified in condition S11	24-hr composite
Chronic Toxicity Testing	See condition S12 for testing requirements	2/permit cycle during months specified in condition S12	24-hr composite

Monitoring schedule notes	
a	Continuous means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance. The Permittee must sample every 6 hours when continuous monitoring is not possible.
b	24-hour composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.
c	Calculate mass concurrently with the respective concentration of a sample, using the following formula: Concentration (in mg/L) X Flow (in MGD) X Conversion Factor (8.34) = lbs/day

d	Calculate the monthly average percent removal using the following formula: $\% \text{ removal} = \frac{\text{Influent concentration (mg/L)} - \text{Effluent concentration (mg/L)}}{\text{Influent concentration (mg/L)}} \times 100$ where influent and effluent concentrations are the monthly average concentrations of BOD_5 and TSS.
e	The Permittee must continuously record effluent total residual chlorine concentration using inline analyzers. Report the highest concentration from instantaneous data averaged over a maximum interval of 10 minutes as the daily maximum concentration.
f	The Permittee must continuously record effluent pH using inline analyzers. Report the daily maximum and minimum pH values from instantaneous data averaged over a maximum interval of 5 minutes. Do not report daily average pH values.
g	Report a numerical value for fecal coliforms following the procedures in Ecology's *Information Manual for Wastewater Treatment Plant Operators*, Publication Number 04-10-020. Do not report a result as too numerous to count (TNTC).
h	The Permittee must monitor and report all parameters in section 3 of this monitoring schedule, except metals, each day in which wet weather bypassing occurs. Report individual sample results on the monthly DMR in which bypassing occurred and summarize the results in the annual bypass report (S9.B). Report "No Discharge" for the CEPC monitoring point on the monthly DMR when no bypassing occurs during the month.
i	Membrane Flow Capacity to be calculated based on daily peak flow tests conducted on the day of a wet weather bypass event.
j	The maximum membrane TMP is the highest measured transmembrane pressure recorded at the initiation of a wet weather bypass event.
k	The Permittee must record and report the influent flow rate to the WWTP at the time of initiating a wet weather bypass. The Permittee must also calculate and report the average flow rate to the WWTP over the duration of the wet weather bypass event.
L	Storm duration is the amount of total time when precipitation that contributed to a wet weather bypass event occurred.
m	The Permittee must report precipitation for each storm event that led to a wet weather bypass. It may report precipitation using a single rain gauge that most represents precipitation over the drainage area tributary to the treatment plant or it may report precipitation based on an aggregate of multiple rain gauges in the drainage basin.
n	The Permittee must limit composite sampling of CEPC effluent to the duration of each wet weather bypass event. It may use automated composite sampling equipment or manually composite a series of grab samples over the duration of the bypass.
o	The Permittee must monitor metals in the CEPC effluent during a wet weather bypass event. Report individual results on the semiannual DMR corresponding to the months in which metals testing occurred. The semiannual monitoring periods are January through June and July through December.
p	Mercury monitoring requires clean sampling using EPA Method 1669 and low-level analysis using EPA Method 1631E. The Permittee will report mercury results with all other priority pollutant metals testing.
q	Manual composite refers to the collection of multiple discrete grab samples that are mixed and analyzed as a single sample. See Special Condition S6.B.1 for further details.

S2.B. Sampling and analytical procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters. The Permittee must conduct representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions that may affect effluent quality.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 (or as applicable in 40 CFR subchapters N [Parts 400–471] or O [Parts 501-503]) unless otherwise specified in this permit . Ecology may only specify alternative methods for parameters without permit limits and for those parameters without an EPA approved test method in 40 CFR Part 136.

S2.C. Flow measurement and continuous monitoring devices

The Permittee must:

1. Select and use appropriate flow measurement and continuous monitoring devices and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard, the manufacturer's recommendation, and approved O&M manual procedures for the device and the wastestream.
3. Calibrate continuous monitoring instruments weekly unless it can demonstrate a longer period is sufficient based on monitoring records. The Permittee:
    a. May calibrate apparatus for continuous monitoring of dissolved oxygen by air calibration.
    b. Must calibrate continuous pH measurement instruments using a grab sample analyzed in the lab with a pH meter calibrated with standard buffers and analyzed within 15 minutes of sampling.
    c. Must calibrate continuous chlorine measurement instruments using a grab sample analyzed in the laboratory within 15 minutes of sampling.
4. Calibrate flow-monitoring devices at a minimum frequency of at least one calibration per year.
5. Maintain calibration records for at least three years.

S2.D. Laboratory accreditation

The Permittee must ensure that all monitoring data required by Ecology for permit specified parameters is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. Flow, temperature, settleable solids, conductivity, pH, and

internal process control parameters are exempt from this requirement. The Permittee must obtain accreditation for conductivity and pH if it must receive accreditation or registration for other parameters.

S3. Reporting and recording requirements

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

S3.A. Discharge monitoring reports

The first monitoring period begins on the effective date of the permit (unless otherwise specified). The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic discharge monitoring report (DMR) form provided by Ecology within the Water Quality Permitting Portal. Include data for each of the parameters tabulated in Special Condition S2 and as required by the form. Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.
2. Ensure that DMRs are electronically submitted no later than the dates specified below, unless otherwise specified in this permit.
3. The Permittee must also submit an electronic copy of the laboratory report as an attachment using WQWebDMR. The contract laboratory reports must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter.
4. Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must:
    a. Submit **monthly** DMRs by the 15th day of the following month.
    b. Submit **quarterly DMRs**, unless otherwise specified in the permit, by the 15th day of the month following the monitoring period. Quarterly sampling periods are January through March, April through June, July through September, and October through December. The Permittee must submit the first quarterly DMR on July 15, 2018 for the quarter beginning on April 1, 2018.
    c. Submit **semiannual DMRs** to report metals testing of the CEPC effluent by July 15 and January 15 of each year. Semiannual sampling periods are January through June, and July through December. The first sampling period begins July 1, 2018 and the first DMR is due January 15, 2019. If there are no qualifying wet weather bypass events during a semiannual monitoring period, the Permittee must report "No Discharge" on the DMR for that period.

d. Submit **annual DMRs** by March 15th of each year for monitoring completed the previous year. The first monitoring period begins on the effective date of the permit and lasts 12 calendar months. The first annual DMR is due March 15, 2019.

e. Submit permit renewal application monitoring data in WQWebDMR on quarterly DMRs as required by S3.A.4.b.

5. Enter the "No Discharge" reporting code for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.

6. Report single analytical values below detection as "less than the detection level (DL)" by entering < followed by the numeric value of the detection level (e.g. < 2.0) on the DMR. If the method used did not meet the minimum DL and quantitation level (QL) identified in the permit, report the actual QL and DL in the comments or in the location provided.

7. Report single analytical values between the detection level (DL) and the quantitation level (QL) by entering the estimated value, the code for estimated value/below quantitation limit (j) and any additional information in the comments. Submit a copy of the laboratory report as an attachment using WQWebDMR.

8. **Not** report zero for bacteria monitoring. Report as required by the laboratory method.

9. Calculate and report an arithmetic average value for each day for bacteria if multiple samples were taken in one day.

10. Calculate the geometric mean values for bacteria (unless otherwise specified in the permit) using:

    a. The reported numeric value for all bacteria samples measured above the detection value except when it took multiple samples in one day. If the Permittee takes multiple samples in one day it must use the arithmetic average for the day in the geometric mean calculation.

    b. The detection value for those samples measured below detection.

11. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit and as allowed in Appendix A.

12. Calculate average values and calculated total values (unless otherwise specified in the permit) using:

    a. The reported numeric value for all parameters measured between the detection value and the quantitation value for the sample analysis.

    b. One-half the detection value (for values reported below detection) if the lab detected the parameter in another sample from the same monitoring point for the reporting period.

c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for the reporting period.

13. Report single-sample grouped parameters (for example: priority pollutants, PAHs, pulp and paper chlorophenolics, TTOs) on the WQWebDMR form and include: sample date, concentration detected, detection limit (DL) (as necessary), and laboratory quantitation level (QL) (as necessary).

S3.B. Permit submittals and schedules

The Permittee must use the Water Quality Permitting Portal – Permit Submittals application (unless otherwise specified in the permit) to submit all other written permit-required reports by the date specified in the permit.

When another permit condition requires submittal of a paper (hard-copy) report, the Permittee must ensure that it is postmarked or received by Ecology no later than the dates specified by this permit. Send these paper reports to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

S3.C. Records retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

S3.D. Recording of results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

S3.E. Additional monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Special Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR unless otherwise specified by Special Condition S2.

S3.F. Reporting permit violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
2. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.

a. Immediate reporting

The Permittee must immediately report to Ecology and the Snohomish County Health District or Public Health of Seattle-King County (depending on location impacted by the incident) at the numbers listed below all:

- Failures of the disinfection system.
- Collection system overflows.
- Plant bypasses discharging to marine surface waters.
- Any other failures of the sewage system (pipe breaks, etc.)

Northwest Regional Office	425-649-7000
Snohomish County Health District	425-339-5200
Public Health of Seattle-King County	(206) 477-8050

If the reportable incident impacts marine waters, the Permittee must also contact the Department of Health, Shellfish Program:

Department of Health,	360-236-3330 (business hours)
Shellfish Program	360-789-8962 (after business hours)

Additionally, for any sanitary sewer overflow (SSO) that discharges to a municipal separate storm sewer system (MS4), the Permittee must notify the appropriate MS4 owner or operator.

b. Twenty-four-hour reporting

The Permittee must report the following occurrences of noncompliance by telephone, to Ecology at the telephone numbers listed above, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

1. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.

2. Any unanticipated bypass that causes an exceedance of an effluent limit in the permit (See Part S5.F, "Bypass Procedures").
3. Any upset that causes an exceedance of an effluent limit in the permit (See G.15, "Upset").
4. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Section S1.A of this permit.
5. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit.

c. Report within five days

The Permittee must also submit a written report within five business days of the time that the Permittee becomes aware of any reportable event under S3.F.2.a or S3.F.2.b, above. Submit the written report electronically using the *Water Quality Permitting Portal – Permit Submittals* application under the "As Needed, 5-day Written Follow-up" submittal schedule. Include the ERTS number in the name of the file uploaded for this submittal. If the letter covers multiple ERTS reports, include the incident date in the file name (example file names: "ERTS XXXXXX follow-up" or "follow-up-MMDDYYYY incidents"). The report must contain:

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times.
3. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
4. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
5. If the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

d. Waiver of written reports

Ecology may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

e. All other permit violation reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

S3.G. Other reporting

a. Spills of oil or hazardous materials

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and chapter 173-303-145. You can obtain further instructions at the following website: https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue/Report-a-spill.

b. Failure to submit relevant or correct facts

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

S3.H. Maintaining a copy of this permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

S4. Facility loading

S4.A. Design criteria

The flows or waste loads for the permitted facility must not exceed the following design criteria:

Maximum Month Design Flow (MMDF)	40.9 MGD
BOD_5 Influent Loading for Maximum Month	66,063 lbs/day
TSS Influent Loading for Maximum Month	61,400 lbs/day

S4.B. Plans for maintaining adequate capacity

a. Conditions triggering plan submittal

The Permittee must submit a plan and a schedule for continuing to maintain capacity to Ecology when:

1. The actual flow or waste load reaches 85 percent of any one of the design criteria in S4.A for three consecutive months.
2. The projected plant flow or loading would reach design capacity within five years.

b. Plan and schedule content

The plan and schedule must identify the actions necessary to maintain adequate capacity for the expected population growth and to meet the limits and requirements of the permit. The Permittee must consider the following topics and actions in its plan.

1. Analysis of the present design and proposed process modifications.

2. Reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system.
3. Limits on future sewer extensions or connections or additional waste loads.
4. Modification or expansion of facilities.
5. Reduction of industrial or commercial flows or waste loads.

Engineering documents associated with the plan must meet the requirements of WAC 173-240-060, "Engineering Report," and be approved by Ecology prior to any construction.

S4.C. Duty to mitigate

The Permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

S4.D. Notification of new or altered sources

1. The Permittee must submit written notice to Ecology whenever any new discharge or a substantial change in volume or character of an existing discharge into the wastewater treatment plant is proposed which:
   a. Would interfere with the operation of, or exceed the design capacity of, any portion of the wastewater treatment plant.
   b. Is not part of an approved general sewer plan or approved plans and specifications.
   c. Is subject to pretreatment standards under 40 CFR Part 403 and Section 307(b) of the Clean Water Act.
2. This notice must include an evaluation of the wastewater treatment plant's ability to adequately transport and treat the added flow and/or waste load, the quality and volume of effluent to be discharged to the treatment plant, and the anticipated impact on the Permittee's effluent [40 CFR 122.42(b)].

S4.E. Wasteload assessment

The Permittee must conduct an assessment of its influent flow and waste load and submit a report to Ecology by December 31, 2022. The report must contain:

1. A description of compliance or noncompliance with the permit effluent limits.
2. A comparison between the existing and design:
   a. Monthly average dry weather and wet weather flows.
   b. Maximum month flows.
   c. Peak flows.
   d. BOD_5 loadings.
   e. Total suspended solids loadings.
3. The percent change in the above parameters since the previous report.

4. The present and design population or population equivalent.
5. The projected population growth rate.
6. The estimated date upon which the Permittee expects the wastewater treatment plant to reach design capacity, according to the most restrictive of the parameters above.
7. An Infiltration and Inflow (I/I) update that describes:
    a. For the collection system owned and operated by the County:
        i. The results of recent I/I monitoring
        ii. A summary of recent I/I improvement projects.
        iii. Projects planned to improve I/I.
    b. For the collection systems owned and operated by component agencies:
        i. Measures taken to encourage component agencies to control I/I.
        ii. Any known I/I concerns.
        iii. Steps planned to further encourage I/I reduction projects.

S5. Operation and maintenance

The Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes keeping a daily operation logbook (paper or electronic), adequate laboratory controls, and appropriate quality assurance procedures. This provision of the permit requires the Permittee to operate backup or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of this permit.

S5.A. Certified operator

This permitted facility must be operated by an operator certified by the state of Washington for at least a Class IV plant. This operator must be in responsible charge of the day-to-day operation of the wastewater treatment plant. An operator certified for at least a Class III plant must be in charge during all regularly scheduled shifts.

S5.B. Operation and maintenance program

The Permittee must:

1. Institute an adequate operation and maintenance program for the entire sewage system.
2. Keep maintenance records on all major electrical and mechanical components of the treatment plant, as well as the sewage system and pumping stations. Such records must clearly specify the frequency and type of maintenance recommended by the manufacturer and must show the frequency and type of maintenance performed.
3. Make maintenance records available for inspection at all times.

S5.C. Short-term reduction

The Permittee must schedule any facility maintenance, which might require interruption of wastewater treatment and degrade effluent quality, during non-critical water quality periods and carry this maintenance out according to the approved O&M manual or as otherwise approved by Ecology.

If a Permittee contemplates a reduction in the level of treatment that would cause a violation of permit discharge limits on a short-term basis for any reason, and such reduction cannot be avoided, the Permittee must:

1. Give written notification to Ecology, if possible, thirty (30) days prior to such activities.
2. Detail the reasons for, length of time of, and the potential effects of the reduced level of treatment.

This notification does not relieve the Permittee of its obligations under this permit.

S5.D. Electrical power failure

The Permittee must ensure that adequate safeguards prevent the discharge of untreated wastes or wastes not treated in accordance with the requirements of this permit during electrical power failure at the treatment plant and/or sewage lift stations. Adequate safeguards include, but are not limited to, alternate power sources, standby generator(s), or retention of inadequately treated wastes.

The Permittee must maintain Reliability Class II (EPA 430-99-74-001) at the wastewater treatment plant. Reliability Class II requires a backup power source sufficient to operate all vital components and critical lighting and ventilation during peak wastewater flow conditions. Vital components used to support the secondary processes (i.e., mechanical aerators or aeration basin air compressors) need not be operable to full levels of treatment, but must be sufficient to maintain the biota.

S5.E. Prevent connection of inflow

The Permittee must strictly enforce its sewer ordinances and not allow the connection of inflow (roof drains, foundation drains, etc.) to the sanitary sewer system.

S5.F. Bypass procedures

A bypass is the intentional diversion of waste streams from any portion of a treatment facility. This permit prohibits all bypasses except when the bypass is for essential maintenance, as authorized in special condition S5.F.1, or is approved by Ecology as an anticipated bypass following the procedures in S5.F.2. Special Condition S9 authorizes anticipated wet weather bypasses of the MBR treatment system under specific conditions and limits.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

   This permit allows bypasses for essential maintenance of the treatment system when necessary to ensure efficient operation of the system. The Permittee may bypass the treatment system for essential maintenance only if doing so does not cause violations of effluent limits. The Permittee is not required to notify Ecology when bypassing for essential maintenance. However the Permittee must comply with the monitoring requirements specified in special condition S2.B.

2. Anticipated bypasses for non-essential maintenance

   Ecology may approve an anticipated bypass under the conditions listed below. This permit prohibits any anticipated bypass that is not approved through the following process.

   a. If a bypass is for non-essential maintenance, the Permittee must notify Ecology, if possible, at least ten (10) days before the planned date of bypass. The notice must contain:

      - A description of the bypass and the reason the bypass is necessary.
      - An analysis of all known alternatives which would eliminate, reduce, or mitigate the potential impacts from the proposed bypass.
      - A cost-effectiveness analysis of alternatives.
      - The minimum and maximum duration of bypass under each alternative.
      - A recommendation as to the preferred alternative for conducting the bypass.
      - The projected date of bypass initiation.
      - A statement of compliance with SEPA.
      - A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
      - Details of the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

   b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process. The project-specific engineering report as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.

c. Ecology will determine if the Permittee has met the conditions of special condition S5.F.2 a and b and consider the following prior to issuing a determination letter, an administrative order, or a permit modification as appropriate for an anticipated bypass:

- If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.
- If the bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
- If feasible alternatives to the bypass exist, such as:
  - The use of auxiliary treatment facilities.
  - Retention of untreated wastes.
  - Stopping production.
  - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance.
  - Transport of untreated wastes to another treatment facility.

S5.G. Operations and maintenance (O&M) manual

a. O&M manual submittal and requirements

The Permittee must:

1. Submit an electronic copy of the current Operations and Maintenance (O&M) Manual for the permitted facility that meets the requirements of 173-240-080 WAC by July 31, 2018. Due to the large size and complexity of the manual, the Permittee must submit the electronic files on a portable digital storage device, (flash drive, DVD or CD); do not submit files through the Water Quality Permitting Portal – Permit Submittals application.
2. Review the O&M Manual at least annually.
3. Submit to Ecology for review all substantial changes or updates to the O&M Manual whenever it incorporates them into the manual. Submit electronic copies of all updated sections by September 1, 2022.
4. Keep the approved O&M Manual at the permitted facility.
5. Follow the instructions and procedures of this manual.

b. O&M manual components

In addition to the requirements of WAC 173-240-080(1) through (5), the O&M Manual must be consistent with the guidance in Table G1-3 in the *Criteria for Sewage Works Design* (Orange Book), 2008. The O&M Manual must include:

1. Emergency procedures for cleanup in the event of wastewater system upset or failure.
2. A review of system components which if failed could pollute surface water or could impact human health. Provide a procedure for a routine schedule of checking the function of these components.
3. Wastewater system maintenance procedures that contribute to the generation of process wastewater.
4. Reporting protocols for submitting reports to Ecology to comply with the reporting requirements in the discharge permit.
5. Any directions to maintenance staff when cleaning or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine).
6. The treatment plant process control monitoring schedule.
7. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.

S6. Pretreatment

S6.A. General requirements

1. The Permittee must implement the Industrial Pretreatment Program in accordance with King County Code 28.84.060 as amended by King County Ordinance No. 11963 on January 1, 1996, legal authorities, policies, procedures, and financial provisions described in the Permittee's approved pretreatment program submittal entitled "Industrial Pretreatment Program" and dated April 27, 1981; any approved revisions thereto; and the General Pretreatment Regulations (40 CFR Part 403). At a minimum, the Permittee must undertake the following pretreatment implementation activities:

   a. Enforce categorical pretreatment standards under Section 307(b) and (c) of the Federal Clean Water Act (hereinafter, the Act), prohibited discharge standards as set forth in 40 CFR 403.5, local limits, or state standards, which ever are most stringent or apply at the time of issuance or modification of a local industrial waste discharge permit. Locally derived limits are defined as pretreatment standards under Section 307(d) of the Act and are not limited to categorical industrial facilities.

b. Issue industrial waste discharge permits to all significant industrial users [SIUs, as defined in 40 CFR 403.3(v)(i)(ii)] contributing to the treatment system, including those from other jurisdictions. Industrial waste discharge permits must contain as a minimum, all the requirements of 40 CFR 403.8 (f)(l)(iii). The Permittee must coordinate the permitting process with Ecology regarding any industrial facility which may possess a state waste discharge permit issued by Ecology.

c. Maintain and update, as necessary, records identifying the nature, character, and volume of pollutants contributed by industrial users to the treatment works. The Permittee must maintain records for at least a three-year period.

d. Perform inspections, surveillance, and monitoring activities on industrial users to determine or confirm compliance with pretreatment standards and requirements. The Permittee must conduct a thorough inspection of SIUs annually, except Middle-Tier Categorical Industrial Users, as defined by 40 CFR 403.8(f)(2)(v)(B)&(C), need only be inspected once every two years. The Permittee must conduct regular local monitoring of SIU wastewaters commensurate with the character and volume of the wastewater but not less than once per year except for Middle-Tier Categorical Industrial Users which may be sampled once every two years. The Permittee must collect and analyze samples in accordance with 40 CFR Part 403.12(b)(5)(ii)-(v) and 40 CFR Part 136.

e. Enforce and obtain remedies for non-compliance by any industrial users with applicable pretreatment standards and requirements. Once violations have been identified, the Permittee must take timely and appropriate enforcement action to address the non-compliance. The Permittee's action must follow its enforcement response procedures and any amendments, thereof.

f. Publish, at least annually in a newspaper of general circulation within the Permittee's service area, a list of all non-domestic users which, at any time in the previous 12 months, were in significant non-compliance as defined in 40 CFR 403.8(f)(2)(vii).

g. If the Permittee elects to conduct sampling of an SIU's discharge in lieu of requiring user self-monitoring, it must satisfy all requirements of 40 CFR Part 403.12. This includes monitoring and record keeping requirements of sections 403.12(g) and (o). For SIU's subject to categorical standards (i.e., CIUs), the Permittee may either complete baseline and initial compliance reports for the CIU (when required by 403.12(b) and (d)) or require these of the CIU. The Permittee must ensure SIUs are provided the results of sampling in a timely manner, inform SIUs of their right to sample, their obligations to report any sampling they do, to respond to non-compliance, and to submit other notifications. These include a slug load report (403.12(f)), notice of changed discharge (403.12(j)), and hazardous waste notifications (403.12(p)). If sampling for the SIU, the Permittee must not

sample less than once in every six month period unless the Permittee's approved program includes procedures for reduction of monitoring for Middle-Tier or Non-Significant Categorical Users per 403.12(e)(2) and (3) and those procedures have been followed.

h. Develop and maintain a data management system designed to track the status of the Permittee's industrial user inventory, industrial user discharge characteristics, and compliance status.

i. Maintain adequate staff, funds, and equipment to implement its pretreatment program.

j. Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by commercial or industrial users within these jurisdictions. These contracts or agreements must identify the agency responsible for the various implementation and enforcement activities to be performed in the contributing jurisdiction.

2. Per 40 CFR 403.8(f)(2)(vii), the Permittee must evaluate each Significant Industrial User to determine if a Slug Control Plan is needed to prevent slug discharges which may cause interference, pass-through, or in any other way result in violations of the Permittee's regulations, local limits or permit conditions. The Slug Control Plan evaluation shall occur within one year of a user's designation as a SIU. In accordance with 40 CFR 403.8(f)(1)(iii)(B)(6) the Permittee shall include slug discharge control requirements in an SIU's permit if the Permittee determines that they are necessary.

3. Whenever Ecology determines that any waste source contributes pollutants to the Permittee's treatment works in violation of Subsection (b), (c), or (d) of Section 307 of the Act, and the Permittee has not taken adequate corrective action, Ecology will notify the Permittee of this determination. If the Permittee fails to take appropriate enforcement action within 30 days of this notification, Ecology may take appropriate enforcement action against the source or the Permittee.

4. Pretreatment Report

   The Permittee must submit the annual report according to the instructions in Special Condition S3.B, Permit Submittals and Schedules. Submit one electronic copy of the annual report using the Water Quality Permitting Portal – Permit Submittals application by April 30th of each year.

   The report must include the following information:

   a. An updated listing of non-domestic industrial dischargers.

   b. Summarized Results of wastewater sampling at the treatment plant as specified in Subsection S6.B below. The Permittee must submit complete results of each sampling event on the appropriate quarterly or annual DMR through Ecology's WQWebDMR system, as described in Special Condition S3.A. The Permittee must calculate removal rates for each

pollutant and evaluate the adequacy of the existing local limits in prevention of treatment plant interference, pass through of pollutants that could affect receiving water quality and biosolids contamination.

c. Status of program implementation, including:

- Any substantial modifications to the pretreatment program as originally approved by Ecology, including staffing and funding levels.
- Any interferences, upsets, or permit violations experienced at the WWTP that are directly attributable to wastes from industrial users.
- Listing of industrial users inspected and/or monitored, and a summary of the results.
- Listing of industrial users scheduled for inspection and/or monitoring for the next year, and expected frequencies.
- Listing of industrial users notified of promulgated pretreatment standards and/or local standards as required in 40 CFR 403.8(f)(2)(iii). The list must indicate which industrial users are on compliance schedules and the final date of compliance for each.
- Listing of industrial users issued industrial waste discharge permits.
- Planned changes in the pretreatment program implementation plan.

d. Status of compliance activities, including:

- Listing of industrial users that failed to submit baseline monitoring reports or any other reports required under 40 CFR 403.12 and in the Permittee's pretreatment program, dated April 27, 1981.
- Listing of industrial users that were at any time during the reporting period not complying with federal, state, or local pretreatment standards or with applicable compliance schedules for achieving those standards, and the duration of such non-compliance.
- Summary of enforcement activities and other corrective actions taken or planned against non-complying industrial users. The Permittee must supply to Ecology a copy of the public notice of facilities that were in significant non-compliance.

5. The Permittee must request and obtain approval from Ecology before making any significant changes to the approved local pretreatment program. The Permittee must follow the procedure in 40 CFR 403.18 (b) and (c).

S6.B. Monitoring requirements

The Permittee must monitor its influent, effluent, and biosolids at the Brightwater WWTP for the priority pollutants identified in Tables II and III of Appendix D of 40 CFR Part 122 as amended, any compounds identified as a result of Condition S6.B.4, and any other pollutants expected from nondomestic sources using U.S. EPA-approved procedures for collection, preservation, storage, and analysis. The Permittee must test influent, effluent, and biosolids samples for the priority

pollutant metals (Table III, 40 CFR 122, Appendix D) on a quarterly basis throughout the term of this permit. The Permittee must test influent, effluent, and biosolids samples for the organic priority pollutants (Table II, 40 CFR 122, Appendix D) on an annual basis.

1. The Permittee must sample Brightwater WWTP influent and effluent on a day when industrial discharges are occurring at normal to maximum levels. The Permittee must obtain 24-hour composite samples for the analysis of acid and base/neutral extractable compounds and metals. The Permittee must collect samples for the analysis of volatile organic compounds and samples must be collected using grab sampling techniques at equal intervals for a total of four grab samples per day.

   The laboratory may run a single analysis for volatile pollutants (using GC/MS procedures approved by 40 CFR 136) for each monitoring day by compositing equal volumes of each grab sample directly in the GC purge and trap apparatus in the laboratory, with no less than 1 ml of each grab included in the composite.

   Unless otherwise indicated, all reported test data for metals must represent the total amount of the constituent present in all phases, whether solid, suspended, or dissolved, elemental or combined including all oxidation states.

   The Permittee must handle, prepare, and analyze all wastewater samples taken for GC/MS analysis using procedures approved by 40 CFR 136.

2. The Permittee must collect a biosolids sample concurrently with a wastewater sample as a single grab sample of residual biosolids. Sampling and analysis must be performed using procedures approved by 40 CFR 136 unless the Permittee requests an alternate method and Ecology has approved.

3. The Permittee must take cyanide, phenols, and oils as grab samples. Oils must be hexane soluble or equivalent, and should be measured in the influent and effluent only.

4. In addition to quantifying pH, oil and grease, and all priority pollutants, the Permittee must make a reasonable attempt to identify all other substances and quantify all pollutants shown to be present by gas chromatograph/mass spectrometer (GC/MS) analysis using procedures approved by 40 CFR 136. The Permittee should attempt to make determinations of pollutants for each fraction, which produces identifiable spectra on total ion plots (reconstructed gas chromatograms). The Permittee should attempt to make determinations from all peaks with responses 5% or greater than the nearest internal standard. The 5% value is based on internal standard concentrations of 30 μg/l, and must be adjusted downward if higher internal standard concentrations are used or adjusted upward if lower internal standard concentrations are used. The Permittee may express results for non-substituted aliphatic compounds as total hydrocarbon content. The Permittee must use a laboratory whose computer data processing programs are capable of comparing sample mass spectra to a computerized library of mass spectra, with visual confirmation by an

experienced analyst. For all detected substances which are determined to be pollutants, the Permittee must conduct additional sampling and appropriate testing to determine concentration and variability, and to evaluate trends.

S6.C. Reporting of monitoring results

The Permittee must submit data from each sampling event electronically on quarterly and annual DMRs through the WQWebDMR system, as outlined in Special Condition S3.A. The Permittee must also include a summary of monitoring results in the Annual Pretreatment Report.

S6.D. Local limit development

As sufficient data become available, the Permittee must, in consultation with Ecology, reevaluate their local limits in order to prevent pass through or interference. If Ecology determines that any pollutant present causes pass through or interference, or exceeds established biosolids standards, the Permittee must establish new local limits or revise existing local limits as required by 40 CFR 403.5. Ecology may also require the Permittee to revise or establish local limits for any pollutant discharged from the treatment works that has a reasonable potential to exceed the water quality standards, sediment standards, or established effluent limits, or causes whole effluent toxicity. Ecology makes this determination in the form of an Administrative Order.

Ecology may modify this permit to incorporate additional requirements relating to the establishment and enforcement of local limits for pollutants of concern. Any permit modification is subject to formal due process procedures under state and federal law and regulation.

S7. Solid wastes

S7.A. Solid waste handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

S7.B. Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee must apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

S8. Spill control plan

S8.A Spill control plan submittals and requirements

The Permittee must:

1. Review the existing spill control plan for the permitted facility at least annually and update the plan as needed.

2. Send changes to the plan to Ecology.
3. Follow the plan and any supplements throughout the term of the permit.

S.B. Spill control plan components

The spill control plan must include the following:

1. A list of all oil and petroleum products and other materials used and/or stored on-site, which when spilled, or otherwise released into the environment, designate as dangerous waste (DW) or extremely hazardous waste (EHW) by the procedures set forth in WAC 173-303-070. Include other materials used and/or stored on-site which may become pollutants or cause pollution upon reaching state's waters.
2. A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) which prevent, contain, or treat spills of these materials.
3. A description of the reporting system the Permittee will use to alert responsible managers and legal authorities in the event of a spill.
4. A description of operator training to implement the plan.

The Permittee may submit plans and manuals required by 40 CFR Part 112, contingency plans required by Chapter 173-303 WAC, or other plans required by other agencies, which meet the intent of this section.

S9. Wet weather operations

S9.A. Flow blending approval

The Permittee may initiate a bypass of the membrane bioreactor (MBR) treatment components at the permitted facility when the flows entering the facility are within 10% of exceeding the calculated available daily Membrane Flow Capacity. The following conditions apply to each wet weather bypass event.

1. The membrane control system must be operating in “TMP Control Mode”.
2. The Permittee must determine available Membrane Flow Capacity using an automated peak flow test performed simultaneously on two MBR trains for a one-hour period each day. The available Membrane Flow Capacity for the facility is the average individual train flow rate measured during the two-train peak flow test multiplied by the maximum number of installed MBR trains.
3. The Permittee must minimize the release of pollutants to the environment by taking the following actions:
   - Maximize flow through the MBR treatment system,
   - Maximize the use of storage capacity in the influent system, and
   - Divert flow to the West Point and/or South WWTPs, if conveyance and treatment capacity for those facilities is available.

4. When bypassing the MBR treatment components, the Permittee must ensure all bypass flows receive treatment through screening, grit removal, chemically enhanced primary clarification, and disinfection. The final discharge must meet the effluent limits listed in special condition S1.
5. The bypass event must result from increased flows caused by wet weather. The Permittee must document the duration and amount of rainfall for each storm event that causes a wet weather bypass.

Bypasses that do meet the above conditions are subject to the bypass provisions of special condition S5.F.

S9.B. Records and reporting

The Permittee must maintain records of all bypasses at the treatment plant. These records must document the date, duration, and volume of each bypass event, and the magnitude of the associated precipitation event. The records must also indicate the influent flow rate at the time when bypassing is initiated and the average influent flow rate during the split flow event.

The Permittee must report on the facility's monthly DMR all data from bypass monitoring listed in table S2A(3) of this permit. In addition, the Permittee must submit an annual bypass report by July 1st each year that summarizes all bypass occurrences for the previous year.

The annual report must document that each bypass complied with the authorizing conditions in part A above. It must also include a net environmental benefit (NEB) analysis. The NEB section must calculate the actual mass of BOD_5 and TSS discharged through the marine outfall on a monthly and annual basis and compare the results to a theoretical mass loading for a conventional, non-blending plant with the following assumed effluent quality:

Annual Average BOD_5 and TSS Concentrations:	15 mg/L
Maximum Monthly BOD_5 and TSS Concentrations:	25 mg/L

S9.C. Utility analysis report

The Permittee must submit an updated Utility Analysis Report by September 1, 2022.

S9.D. Net environmental benefit (NEB) performance standard

A performance standard applies to the Net Environmental Benefit achieved by the Brightwater WWTP. Achievement of the NEB is required in accordance with the standards in the table below which were approved by Ecology as part of the facility plan approval. If the Brightwater WWTP does not meet the required NEB, the Permittee must submit an explanation in the annual report(s) explaining the cause of non-compliance of the NEB and measures that will be taken to ensure achievement of the NEB.

Net Environmental Benefit Required[1]

Parameter	Net Environmental Benefit (percent reduction in BOD/TSS) [a, b]
Phase 1 – Revised (2012-2030) [c]	
BOD_5	
Maximum year [d]	51 percent
Maximum month [d]	16 percent
TSS	
Maximum year [d]	66 percent
Maximum month [d]	47 percent

[a]	Net environmental benefit is the reduction in a pollutant from the actual discharge compared to the theoretical discharge from a Conventional Activated Sludge (CAS) process.
[b]	Assumes CAS = 15 mg/L BOD_5/TSS for yearly conditions and 25 mg/L BOD_5/TSS for maximum-month condition.
[c]	Based on flow projections for 2030 and utilization of 0.8 million gallons of inline storage upstream of Hollywood Pump Station
[d]	20-year maximum flow based on 60 years of simulation.

S9.E. MBR pilot testing report

The Permittee must submit by July 31, 2018, a report that presents the findings of MBR pilot testing conducted at the Brightwater WWTP beginning in December 2014. The report must identify the variables testing revealed as potential causes of seasonal decreases in membrane performance. The report must also describe operational changes the Permittee may make to improve seasonal performance.

S10. Outfall evaluation

The Permittee must inspect the submerged portion of the outfall line and diffuser to document its integrity and continued function. If conditions allow for a photographic verification, the Permittee must include such verification in the report. By December 1, 2021, the Permittee must submit the inspection report to Ecology through the Water Quality Permitting Portal – Permit Submittals application. The Permittee must submit hard-copies of any video files to Ecology as required by Permit Condition S3.B. The Portal does not support submittal of video files.

[1] King County Wastewater Treatment Division, Brightwater Regional Wastewater Treatment System, Facilities Plan, May 2005, p 4-35 and King County Wastewater Treatment Division, Brightwater Regional Wastewater Treatment System, Facilities Plan Amendment No. 3, October 2016, p 15-17.

The inspector must at a minimum:

- Assess the physical condition of the outfall pipe, diffuser, and associated couplings and pipe anchors.
- Evaluate whether alignment issues reported in the 2012 Brightwater Marine Outfall Inspection and Commissioning report have worsened. Issues included the suspension of pipeline sections over depressions in the seabed and a slight rotation of one pipe as it sank into place during construction.
- Determine the extent of sediment accumulation in the vicinity of the diffuser.
- Ensure diffuser ports are free of obstructions and are allowing uniform flow.
- Confirm physical location (latitude/longitude) and depth (at MLLW) of the diffuser section of the outfall.

S11. Acute toxicity

S11.A. Testing when there is no permit limit for acute toxicity

The Permittee must:

1. Conduct acute toxicity testing on final effluent during the year prior to applying for permit renewal. Testing must occur once during the third quarter of 2021, no later than September 30, 2021, and once during the first quarter of 2022, no later than March 31, 2022.
2. Conduct acute toxicity testing on a series of at least five concentrations of effluent, including 100% effluent and a control.
3. Use each of the following species and protocols for each acute toxicity test:

Acute Toxicity Tests	Species	Method
Fathead minnow 96-hour static-renewal test	*Pimephales promelas*	EPA-821-R-02-012
Daphnid 48-hour static test	*Ceriodaphnia dubia, Daphnia pulex,* or *Daphnia magna*	EPA-821-R-02-012

4. Submit the results to Ecology electronically through the Water Quality Permitting Portal – Permit Submittals application by November 15, 2021 (for third quarter 2021 testing) and May 15, 2022 (for first quarter 2022 testing). The Permittee must also summarize the results in the next application for permit renewal.

S11.B. Sampling and reporting requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain toxicity data, bench sheets, and reference toxicant results for test methods. In addition, the Permittee must submit toxicity test data in electronic format (CETIS export file preferred) for entry into Ecology's database.

2. The Permittee must collect 24-hour composite samples of effluent at the IPS for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Subsection C and the Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Section A or pristine natural water of sufficient quality for good control performance.
6. The Permittee must conduct whole effluent toxicity tests on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the acute critical effluent concentration (ACEC). The ACEC equals 0.87% effluent.
8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing must comply with the acute statistical power standard of 29% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S12. Chronic toxicity

S12.A. Testing when there is no permit limit for chronic toxicity

The Permittee must:

1. Conduct chronic toxicity testing on final effluent during the year prior to applying for permit renewal. Testing must occur once during the fourth quarter of 2021, no later than December 31, 2021, and once during the second quarter of 2022, no later than June 30, 2022.
2. Conduct chronic toxicity testing on a series of at least five concentrations of effluent and a control. This series of dilutions must include the acute critical effluent concentration (ACEC). The ACEC equals 0.87% effluent. The series of dilutions should also contain the CCEC of 0.42% effluent.

3. Compare the ACEC to the control using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001.
4. Submit the results to Ecology electronically through the Water Quality Permitting Portal – Permit Submittals application by February 15, 2022 (for fourth quarter 2021 testing) and August 15, 2022 (for second quarter 2022 testing). The Permittee must also summarize the results in the next application for permit renewal.
5. Perform chronic toxicity tests with all of the following species and the most recent version of the following protocols:

Saltwater Chronic Test	Species	Method
Topsmelt survival and growth	*Atherinops affinis*	EPA/600/R-95/136
Mysid shrimp survival and growth	*Americamysis bahia* (formerly *Mysidopsis bahia*)	EPA-821-R-02-014

S12.B. Sampling and reporting requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain toxicity data, bench sheets, and reference toxicant results for test methods. In addition, the Permittee must submit toxicity test data in electronic format (CETIS export file preferred) for entry into Ecology's database.
2. The Permittee must collect 24-hour composite samples of effluent at the IPS for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Section C and the Ecology Publication no. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Subsection C or pristine natural water of sufficient quality for good control performance.
6. The Permittee must conduct whole effluent toxicity tests on an unmodified sample of final effluent.

7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the CCEC and the ACEC. The CCEC and the ACEC may either substitute for the effluent concentrations that are closest to them in the dilution series or be extra effluent concentrations. The CCEC equals 0.42% effluent. The ACEC equals 0.87% effluent.
8. All whole effluent toxicity tests that involve hypothesis testing must comply with the chronic statistical power standard of 39% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S13. Application for permit renewal or modification for facility changes

The Permittee must submit an application for renewal of this permit by September 1, 2022.

The Permittee must also submit a new application or addendum at least one hundred eighty (180) days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

General Conditions

G1. Signatory requirements

1. All applications submitted to Ecology must be signed and certified.

   a. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

      - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or

      - The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

   b. In the case of a partnership, by a general partner.

   c. In the case of sole proprietorship, by the proprietor.

   d. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

   Applications for permits for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity shall be submitted by the public entity.

2. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to Ecology.

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to authorization. If an authorization under paragraph G1.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G1.2, above, must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section must make the following certification:

   "I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G2. Right of inspection and entry

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

1. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
2. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
3. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
4. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. Permit actions

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the Permittee) or upon Ecology's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 40 CFR 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

1. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
   a. Violation of any permit term or condition.
   b. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
   c. A material change in quantity or type of waste disposal.
   d. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination.

e. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit.

f. Nonpayment of fees assessed pursuant to RCW 90.48.465.

g. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.

2. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:

a. A material change in the condition of the waters of the state.

b. New information not available at the time of permit issuance that would have justified the application of different permit conditions.

c. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.

d. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.

e. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.

f. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.

g. Incorporation of an approved local pretreatment program into a municipality's permit.

3. The following are causes for modification or alternatively revocation and reissuance:

a. When cause exists for termination for reasons listed in 1.a through 1.g of this section, and Ecology determines that modification or revocation and reissuance is appropriate.

b. When Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G7) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

G4. Reporting planned changes

The Permittee must, as soon as possible, but no later than one hundred eighty (180) days prior to the proposed changes, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

1. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).

2. A significant change in the nature or an increase in quantity of pollutants discharged.

3. A significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. Plan review required

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with chapter 173-240 WAC. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G6. Compliance with other laws and statutes

Nothing in this permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. Transfer of this permit

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology.

1. Transfers by Modification

   Except as provided in paragraph (2) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

2. Automatic Transfers

   This permit may be automatically transferred to a new Permittee if:

   a. The Permittee notifies Ecology at least thirty (30) days in advance of the proposed transfer date.

   b. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.

   c. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G8. Reduced production for compliance

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G9. Removed substances

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G10. Duty to provide information

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G11. Other requirements of 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. Additional monitoring

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. Payment of fees

The Permittee must submit payment of fees associated with this permit as assessed by Ecology.

G14. Penalties for violating permit conditions

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars ($10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit may incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars ($10,000) for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G15. Upset

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset.
2. The permitted facility was being properly operated at the time of the upset.
3. The Permittee submitted notice of the upset as required in Special Condition S3.F.
4. The Permittee complied with any remedial measures required under S3.F of this permit.

In any enforcement action the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. Property rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. Duty to comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. Toxic pollutants

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. Penalties for tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G20. Compliance schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than fourteen (14) days following each schedule date.

G21. Service agreement review

The Permittee must submit to Ecology any proposed service agreements and proposed revisions or updates to existing agreements for the operation of any wastewater treatment facility covered by this permit. The review is to ensure consistency with chapters 90.46 and 90.48 RCW as required by RCW 70.150.040(9). In the event that Ecology does not comment within a thirty-day (30) period, the Permittee may assume consistency and proceed with the service agreement or the revised/updated service agreement.

Appendix A

LIST OF POLLUTANTS WITH ANALYTICAL METHODS, DETECTION LIMITS AND QUANTITATION LEVELS

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table for permit and application required monitoring unless:

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136.

If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

If the Permittee is unable to obtain the required DL and QL in its effluent due to matrix effects, the Permittee must submit a matrix-specific detection limit (MDL) and a quantitation limit (QL) to Ecology with appropriate laboratory documentation.

When the permit requires the Permittee to measure the base neutral compounds in the list of priority pollutants, it must measure all of the base neutral pollutants listed in the table below. The list includes EPA required base neutral priority pollutants and several additional polynuclear aromatic hydrocarbons (PAHs). The Water Quality Program added several PAHs to the list of base neutrals below from Ecology's Persistent Bioaccumulative Toxics (PBT) List. It only added those PBT parameters of interest to Appendix A that did not increase the overall cost of analysis unreasonably.

Ecology added this appendix to the permit in order to reduce the number of analytical "non-detects" in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost.

The lists below include conventional pollutants (as defined in CWA section 502(6) and 40 CFR Part 122.), toxic or priority pollutants as defined in CWA section 307(a)(1) and listed in 40 CFR Part 122 Appendix D, 40 CFR Part 401.15 and 40 CFR Part 423 Appendix A), and nonconventionals. 40 CFR Part 122 Appendix D (Table V) also identifies toxic pollutants and hazardous substances which are required to be reported by dischargers if expected to be present. This permit Appendix A list does not include those parameters.

CONVENTIONAL POLLUTANTS

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL)[2] *µg/L unless specified*
Biochemical Oxygen Demand		SM5210-B		2 mg/L
Biochemical Oxygen Demand, Soluble		SM5210-B [3]		2 mg/L
Fecal Coliform		SM 9221E,9222	N/A	Specified in method - sample aliquot dependent
Oil and Grease (HEM) (Hexane Extractable Material)		1664 A or B	1,400	5,000
pH		SM4500-H^+ B	N/A	N/A
Total Suspended Solids		SM2540-D		5 mg/L

NONCONVENTIONAL POLLUTANTS

Pollutant & CAS No. (if available)	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] µg/L unless specified	Quantitation Level (QL)[2] µg/L unless specified
Alkalinity, Total		SM2320-B		5 mg/L as CaCO3
Aluminum, Total	7429-90-5	200.8	2.0	10
Ammonia, Total (as N)		SM4500-NH3-B and C/D/E/G/H		20
Barium Total	7440-39-3	200.8	0.5	2.0
BTEX (benzene +toluene + ethylbenzene + m,o,p xylenes)		EPA SW 846 8021/8260	1	2
Boron, Total	7440-42-8	200.8	2.0	10.0
Chemical Oxygen Demand		SM5220-D		10 mg/L
Chloride		SM4500-Cl B/C/D/E and SM4110 B		Sample and limit dependent
Chlorine, Total Residual		SM4500 Cl G		50.0
Cobalt, Total	7440-48-4	200.8	0.05	0.25
Color		SM2120 B/C/E		10 color units
Dissolved oxygen		SM4500-OC/OG		0.2 mg/L
Flow		Calibrated device		
Fluoride	16984-48-8	SM4500-F E	25	100
Hardness, Total		SM2340B		200 as CaCO3
Iron, Total	7439-89-6	200.7	12.5	50
Magnesium, Total	7439-95-4	200.7	10	50
Manganese, Total	7439-96-5	200.8	0.1	0.5
Molybdenum, Total	7439-98-7	200.8	0.1	0.5
Nitrate + Nitrite Nitrogen (as N)		SM4500-NO3- E/F/H		100
Nitrogen, Total Kjeldahl (as N)		SM4500-N_{org}B/C and SM4500NH_3-B/C/D/EF/G/H		300
NWTPH Dx [4]		Ecology NWTPH Dx	250	250
NWTPH Gx [5]		Ecology NWTPH Gx	250	250
Phosphorus, Total (as P)		SM 4500 PB followed by SM4500-PE/PF	3	10
Salinity		SM2520-B		3 practical salinity units or scale (PSU or PSS)

NONCONVENTIONAL POLLUTANTS

Pollutant & CAS No. (if available)	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] µg/L unless specified	Quantitation Level (QL)[2] µg/L unless specified
Settleable Solids		SM2540 -F		Sample and limit dependent
Soluble Reactive Phosphorus (as P)		SM4500-P E/F/G	3	10
Sulfate (as mg/L SO_4)		SM4110-B		0.2 mg/L
Sulfide (as mg/L S)		SM4500-S^2F/D/E/G		0.2 mg/L
Sulfite (as mg/L SO_3)		SM4500-SO3B		2 mg/L
Temperature (max. 7-day avg.)		Analog recorder or use micro-recording devices known as thermistors		0.2º C
Tin, Total	7440-31-5	200.8	0.3	1.5
Titanium, Total	7440-32-6	200.8	0.5	2.5
Total Coliform		SM 9221B, 9222B, 9223B	N/A	Specified in method - sample aliquot dependent
Total Organic Carbon		SM5310-B/C/D		1 mg/L
Total dissolved solids		SM2540 C		20 mg/L

PRIORITY POLLUTANTS	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] ***µg/L unless specified***	Quantitation Level (QL)[2] ***µg/L unless specified***
METALS, CYANIDE & TOTAL PHENOLS					
Antimony, Total	114	7440-36-0	200.8	0.3	1.0
Arsenic, Total	115	7440-38-2	200.8	0.1	0.5
Beryllium, Total	117	7440-41-7	200.8	0.1	0.5
Cadmium, Total	118	7440-43-9	200.8	0.05	0.25
Chromium (hex) dissolved	119	18540-29-9	SM3500-Cr C	0.3	1.2
Chromium, Total	119	7440-47-3	200.8	0.2	1.0
Copper, Total	120	7440-50-8	200.8	0.4	2.0
Lead, Total	122	7439-92-1	200.8	0.1	0.5
Mercury, Total	123	7439-97-6	1631E	0.0002	0.0005
Nickel, Total	124	7440-02-0	200.8	0.1	0.5
Selenium, Total	125	7782-49-2	200.8	1.0	1.0
Silver, Total	126	7440-22-4	200.8	0.04	0.2
Thallium, Total	127	7440-28-0	200.8	0.09	0.36
Zinc, Total	128	7440-66-6	200.8	0.5	2.5
Cyanide, Total	121	57-12-5	335.4	5	10
Cyanide, Weak Acid Dissociable	121		SM4500-CN I	5	10
Cyanide, Free Amenable to Chlorination (Available Cyanide)	121		SM4500-CN G	5	10
Phenols, Total	65		EPA 420.1		50

PRIORITY POLLUTANTS	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL) [2] *µg/L unless specified*
ACID COMPOUNDS					
2-Chlorophenol	24	95-57-8	625.1	3.3	9.9
2,4-Dichlorophenol	31	120-83-2	625.1	2.7	8.1
2,4-Dimethylphenol	34	105-67-9	625.1	2.7	8.1
4,6-dinitro-o-cresol (2-methyl-4,6,-dinitrophenol)	60	534-52-1	625.1/1625B	24	72
2,4 dinitrophenol	59	51-28-5	625.1	42	126
2-Nitrophenol	57	88-75-5	625.1	3.6	10.8
4-Nitrophenol	58	100-02-7	625.1	2.4	7.2
Parachlorometa cresol (4-chloro-3-methylphenol)	22	59-50-7	625.1	3.0	9.0
Pentachlorophenol	64	87-86-5	625.1	3.6	10.8
Phenol	65	108-95-2	625.1	1.5	4.5
2,4,6-Trichlorophenol	21	88-06-2	625.1	2.7	8.1

PRIORITY POLLUTANTS	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL) [2] *µg/L unless specified*
VOLATILE COMPOUNDS					
Acrolein	2	107-02-8	624.1	5	10
Acrylonitrile	3	107-13-1	624.1	1.0	2.0
Benzene	4	71-43-2	624.1	4.4	13.2
Bromoform	47	75-25-2	624.1	4.7	14.1
Carbon tetrachloride	6	56-23-5	624.1/601 or SM6230B	2.8	8.4
Chlorobenzene	7	108-90-7	624.1	6.0	18.0
Chloroethane	16	75-00-3	624.1 or 601	1.0	2.0
2-Chloroethylvinyl Ether	19	110-75-8	624.1	1.0	2.0
Chloroform	23	67-66-3	624.1 or SM6210B	1.6	4.8
Dibromochloromethane (chlordibromomethane)	51	124-48-1	624.1	3.1	9.3
1,2-Dichlorobenzene	25	95-50-1	624.1	1.9	7.6
1,3-Dichlorobenzene	26	541-73-1	624.1	1.9	7.6
1,4-Dichlorobenzene	27	106-46-7	624.1	4.4	17.6
Dichlorobromomethane	48	75-27-4	624.1	2.2	6.6
1,1-Dichloroethane	13	75-34-3	624.1	4.7	14.1
1,2-Dichloroethane	10	107-06-2	624.1	2.8	8.4
1,1-Dichloroethylene	29	75-35-4	624.1	2.8	8.4
1,2-Dichloropropane	32	78-87-5	624.1	6.0	18.0
1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene) [6]	33	542-75-6	624.1	5.0	15.0
Ethylbenzene	38	100-41-4	624.1	7.2	21.6
Methyl bromide (Bromomethane)	46	74-83-9	624.1 or 601	5.0	10.0
Methyl chloride (Chloromethane)	45	74-87-3	624.1	1.0	2.0
Methylene chloride	44	75-09-2	624.1	2.8	8.4
1,1,2,2-Tetrachloroethane	15	79-34-5	624.1	6.9	20.7
Tetrachloroethylene	85	127-18-4	624.1	4.1	12.3
Toluene	86	108-88-3	624.1	6.0	18.0
1,2-Trans-Dichloroethylene (Ethylene dichloride)	30	156-60-5	624.1	1.6	4.8
1,1,1-Trichloroethane	11	71-55-6	624.1	3.8	11.4

PRIORITY POLLUTANTS	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL) [2] *µg/L unless specified*
VOLATILE COMPOUNDS					
1,1,2-Trichloroethane	14	79-00-5	624.1	5.0	15.0
Trichloroethylene	87	79-01-6	624.1	1.9	5.7
Vinyl chloride	88	75-01-4	624.1 or SM6200B	1.0	2.0

PRIORITY POLLUTANTS	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL) [2] *µg/L unless specified*
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)					
Acenaphthene	1	83-32-9	625.1	1.9	5.7
Acenaphthylene	77	208-96-8	625.1	3.5	10.5
Anthracene	78	120-12-7	625.1	1.9	5.7
Benzidine	5	92-87-5	625.1	44	132
Benzyl butyl phthalate	67	85-68-7	625.1	2.5	7.5
Benzo(*a*)anthracene	72	56-55-3	625.1	7.8	23.4
Benzo(b)fluoranthene (3,4-benzofluoranthene) [7]	74	205-99-2	610/625.1	4.8	14.4
Benzo(j)fluoranthene [7]		**205-82-3**	625.1	0.5	1.0
Benzo(k)fluoranthene (11,12-benzofluoranthene) [7]	75	207-08-9	610/625.1	2.5	7.5
Benzo(b,j,k)fluoranthene (combined according to footnote 7) [7]			625.1	7.8	22.9
Benzo(r,s,t)pentaphene		**189-55-9**	625.1	1.3	5.0
Benzo(*a*)pyrene	73	50-32-8	610/625.1	2.5	7.5
Benzo(*ghi*)Perylene	79	191-24-2	610/625.1	4.1	12.3
Bis(*2-chloroethoxy)*methane	43	111-91-1	625.1	5.3	15.9
Bis(*2-chloroethyl*)ether	18	111-44-4	611/625.1	5.7	17.1
Bis(*2-chloroisopropyl*)ether	42	39638-32-9	625.1	0.5	1.0
Bis(*2-ethylhexyl*)phthalate	66	117-81-7	625.1	2.5	7.5
4-Bromophenyl phenyl ether	41	101-55-3	625.1	1.9	5.7
2-Chloronaphthalene	20	91-58-7	625.1	1.9	5.7
4-Chlorophenyl phenyl ether	40	7005-72-3	625.1	4.2	12.6
Chrysene	76	218-01-9	610/625.1	2.5	7.5
Dibenzo (a,h)acridine		**226-36-8**	610M/625M	2.5	10.0
Dibenzo (a,j)acridine		**224-42-0**	610M/625M	2.5	10.0
Dibenzo(a-*h*)anthracene (1,2,5,6-dibenzanthracene)	82	53-70-3	625.1	2.5	7.5
Dibenzo(a,e)pyrene		192-65-4	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene		189-64-0	625M	2.5	10.0
3,3-Dichlorobenzidine	28	91-94-1	605/625.1	16.5	49.5
Diethyl phthalate	70	84-66-2	625.1	1.9	5.7
Dimethyl phthalate	71	131-11-3	625.1	1.6	4.8
Di-n-butyl phthalate	68	84-74-2	625.1	2.5	7.5
2,4-dinitrotoluene	35	121-14-2	609/625.1	5.7	17.1
2,6-dinitrotoluene	36	606-20-2	609/625.1	1.9	5.7
Di-n-octyl phthalate	69	117-84-0	625.1	2.5	7.5
1,2-Diphenylhydrazine (*as Azobenzene*)	37	122-66-7	1625B	5.0	20
Fluoranthene	39	206-44-0	625.1	2.2	6.6
Fluorene	80	86-73-7	625.1	1.9	5.7
Hexachlorobenzene	9	118-74-1	612/625.1	1.9	5.7
Hexachlorobutadiene	52	87-68-3	625.1	0.9	2.7

PRIORITY POLLUTANTS	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL) [2] *µg/L unless specified*
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)					
Hexachlorocyclopentadiene	53	77-47-4	1625B/625	2.0	4.0
Hexachloroethane	12	67-72-1	625.1	1.6	4.8
Indeno(*1,2,3-cd*)Pyrene	83	193-39-5	610/625.1	3.7	11.1
Isophorone	54	78-59-1	625.1	2.2	6.6
3-Methyl cholanthrene		**56-49-5**	625.1	2.0	8.0
Naphthalene	55	91-20-3	625.1	1.6	4.8
Nitrobenzene	56	98-95-3	625.1	1.9	5.7
N-Nitrosodimethylamine	61	62-75-9	607/625.1	2.0	4.0
N-Nitrosodi-n-propylamine	63	621-64-7	607/625.1	0.5	1.0
N-Nitrosodiphenylamine	62	86-30-6	625.1	1.0	2.0
Perylene		**198-55-0**	625.1	1.9	7.6
Phenanthrene	81	85-01-8	625.1	5.4	16.2
Pyrene	84	129-00-0	625.1	1.9	5.7
1,2,4-Trichlorobenzene	8	120-82-1	625.1	1.9	5.7

PRIORITY POLLUTANT	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL) [2] *µg/L unless specified*
DIOXIN					
2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (2,3,7,8 TCDD)	129	1746-01-6	1613B	1.3 pg/L	5 pg/L

PRIORITY POLLUTANTS	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL) [2] *µg/L unless specified*
PESTICIDES/PCBs					
Aldrin	89	309-00-2	608.3	4.0 ng/L	12 ng/L
alpha-BHC	102	319-84-6	608.3	3.0 ng/L	9.0 ng/L
beta-BHC	103	319-85-7	608.3	6.0 ng/L	18 ng/L
gamma-BHC (Lindane)	104	58-89-9	608.3	4.0 ng/L	12 ng/L
delta-BHC	105	319-86-8	608.3	9.0 ng/L	27 ng/L
Chlordane [8]	91	57-74-9	608.3	14 ng/L	42 ng/L
4,4'-DDT	92	50-29-3	608.3	12 ng/L	36 ng/L
4,4'-DDE	93	72-55-9	608.3	4.0 ng/L	12 ng/L
4,4' DDD	94	72-54-8	608.3	11ng/L	33 ng/L
Dieldrin	90	60-57-1	608.3	2.0 ng/L	6.0 ng/L
alpha-Endosulfan	95	959-98-8	608.3	14 ng/L	42 ng/L
beta-Endosulfan	96	33213-65-9	608.3	4.0 ng/L	12 ng/L
Endosulfan Sulfate	97	1031-07-8	608.3	66 ng/L	198 ng/L
Endrin	98	72-20-8	608.3	6.0 ng/L	18 ng/L
Endrin Aldehyde	99	7421-93-4	608.3	23 ng/L	70 ng/L
Heptachlor	100	76-44-8	608.3	3.0 ng/L	9.0 ng/L
Heptachlor Epoxide	101	1024-57-3	608.3	83 ng/L	249 ng/L
PCB-1242 [9]	106	53469-21-9	608.3	0.065	0.095
PCB-1254	107	11097-69-1	608.3	0.065	0.095
PCB-1221	108	11104-28-2	608.3	0.065	0.095
PCB-1232	109	11141-16-5	608.3	0.065	0.095
PCB-1248	110	12672-29-6	608.3	0.065	0.095
PCB-1260	111	11096-82-5	608.3	0.065	0.095
PCB-1016 [9]	112	12674-11-2	608.3	0.065	0.095
Toxaphene	113	8001-35-2	608.3	240 ng/L	720 ng/L

1. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.

2. Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard or a multiple of the method detection limit. The Permittee must ensure that the analytical lab derives QLs for each analyte according to the procedures documented in the specific analytical method used by the lab.
   ALSO GIVEN AS:
   The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency, December 2007).

3. Soluble Biochemical Oxygen Demand method note: First, filter the sample through a Millipore Nylon filter (or equivalent) - pore size of 0.45-0.50 um (prep all filters by filtering 250 ml of laboratory grade deionized water through the filter and discard). Then, analyze sample as per method 5210-B.

4. NWTPH Dx – Northwest Total Petroleum Hydrocarbons Diesel Extended Range – see http://www.ecy.wa.gov/biblio/97602.html

5. NWTPH Gx - Northwest Total Petroleum Hydrocarbons Gasoline Extended Range – see http://www.ecy.wa.gov/biblio/97602.html

6. 1, 3-dichloroproylene (mixed isomers) - You may report this parameter as two separate parameters: cis-1, 3-dichlorpropropene (10061-01-5) and trans-1, 3-dichloropropene (10061-02-6).

7. Total Benzofluoranthenes - Because Benzo(b)fluoranthene, Benzo(j)fluoranthene and Benzo(k)fluoranthene co-elute you may report these three isomers as total benzofluoranthenes.

8. Chlordane – You may report alpha-chlordane (5103-71-9) and gamma-chlordane (5103-74-2) in place of chlordane (57-74-9). If you report alpha and gamma-chlordane, the DL/PQLs that apply are 14/42 ng/L.

9. PCB 1016 & PCB 1242 – You may report these two PCB compounds as one parameter called PCB 1016/1242.

EXHIBIT B

Issuance Date: July 1, 2015
Effective Date: August 1,2015
Expiration Date: July 31, 2020

National Pollutant Discharge Elimination System
Waste Discharge Permit No. WA0029581

State of Washington
DEPARTMENT OF ECOLOGY
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq.

King County Wastewater Treatment Division
King Street Center, KSC-NR-0512
Seattle, Washington 98104-3855

is authorized to discharge in accordance with the Special and General Conditions that follow.

Plant Location:	**Receiving Water:**
King County South Wastewater Treatment Plant 1200 Monster Road SW Renton, WA 98057	Puget Sound – Central
Treatment Type: Activated Sludge with chlorine disinfection	

Kevin C. Fitzpatrick
Water Quality Section Manager
Northwest Regional Office
Washington State Department of Ecology

Exhibit B

Table of Contents

Summary of Permit Report Submittals

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report (DMR)	Monthly	September 15, 2015
S3.A	Permit application and priority pollutant data in WQWebDMR	Annually	July 31, 2016
S3.F	Reporting Permit Violations	As necessary	
S4.B	Plans for Maintaining Adequate Capacity	As necessary	
S4.D	Notification of New or Altered Sources	As necessary	
S4.E	Wasteload Assessment	1/permit cycle	October 31, 2018
S5.F	Bypass Notification	As necessary	
S5.G	Operations and Maintenance Manual Update	As necessary	
S6.A.4	Pretreatment Report	1/year	April 30, 2016
S8	Spill Control Plan Update	As necessary	
S9.A	Sediment Sampling and Analysis Plan	1/permit cycle	December 1, 2016
S9.B	Sediment Data Report	1/permit cycle	December 1, 2018
S10.A	Acute Toxicity Effluent Test Results - Submit with Permit Renewal Application	2 tests/permit cycle, 1 submittal/permit cycle	Tests: 2018, 1st and 3rd quarters. Submittal: July 31, 2019
S11.A	Chronic Toxicity Effluent Test Results with Permit Renewal Application	2 tests/permit cycle, 1 submittal/permit cycle	Tests: 2018, 2nd and 4th quarters. Submittal: July 31, 2019
S13	Application for Permit Renewal	1/permit cycle	July 31, 2019
G4	Reporting Planned Changes	As necessary	
G5	Engineering Report for Construction or Modification Activities	As necessary	

Special Conditions

S1. Discharge limits

S1.A. Effluent limits

Puget Sound (Marine) Outfall No. 001

All discharges and activities authorized by this permit must comply with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a level in excess of, that identified and authorized by this permit violates the terms and conditions of this permit.

Beginning on the effective date of this permit, the Permittee may discharge treated municipal wastewater to the Puget Sound at the permitted locations subject to compliance with the following limits:

Effluent Limits: Outfall 001 (Puget Sound) *North Diffuser Lat/Long:* 47.602778˚, -122.429000˚ *South Diffuser Lat/Long:* 47.599722˚, -122.429028˚		
Parameter	**Average Monthly [a]**	**Average Weekly [b]**
Carbonaceous Biochemical Oxygen Demand (5-day) ($CBOD_5$)	25 milligrams/liter (mg/L) 30,000 pounds/day (lbs/day) 85% removal of influent $CBOD_5$	40 mg/L 48,000 lbs/day
Total Suspended Solids (TSS)	30 mg/L 36,000 lbs/day 85% removal of influent TSS	45 mg/L 54,000 lbs/day
	Average Monthly	**Maximum Daily [c]**
Total Residual Chlorine	500 µg/L	750 µg/L
	Instantaneous Minimum	**Instantaneous Maximum**
pH [d]	6.0 standard units	9.0 standard units
	Monthly Geometric Mean	**Weekly Geometric Mean**
Fecal Coliform Bacteria [e]	200/100 milliliter (mL)	400/100 mL

[a] Average monthly effluent limit is the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

[b] Average weekly discharge limit is the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

[c] Maximum daily effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day. This does not apply to pH.

[d] Report the instantaneous maximum and minimum pH monthly. Do not average pH values.

[e] Ecology provides directions to calculate the monthly and the weekly geometric mean in publication No. 04-10-020, *Information Manual for Treatment Plant Operators* available at: http://www.ecy.wa.gov/pubs/0410020.pdf

Green River (Freshwater) - Outfall No. 002

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge treated municipal wastewater at the Green River outfall for maintenance purposes only under the following conditions:

1. The Permittee must obtain approval from Ecology at least five (5) working days in advance of the discharging to the Green River for maintenance purposes.
2. The duration of the discharge must not exceed four (4) hours.
3. The discharge must comply with the limits specified below.

Effluent Limits: Outfall 002A (Green River) *Lat/Long:* 47.467500˚, -122.244167˚	
Parameter	**Maximum Daily [1]**
Effluent Flow, MGD [2]	Must be less than or equal to: 0.25 * Green River Flow (MGD) / 5
$CBOD_5$	20 mg/L
Total Suspended Solids	20 mg/L
Total Residual Chlorine	95 µg/L
pH	Shall not be outside the range 6.0 to 9.0
	Maximum Geometric Mean
Fecal Coliform	200/100 mL

[1] Maximum daily effluent limit is the highest allowable daily discharge. In this case, the daily discharge is the average measurement over the discharge duration.

[2] Effluent flow limit is based on a dilution factor of 5, which is required to assure compliance with water quality criteria.

4. The Permittee may only discharge when the Green River flow is greater than 500 cfs.
5. The Permittee must treat any maintenance discharges to the Green River using secondary treatment, disinfection, and dechlorination.
6. The Permittee must monitor the discharge as required in S2.A to ensure that effluent limits are met.
7. The Permittee must sample receiving water turbidity as detailed in S2.A.
8. Any discharge from the treatment plant that results in water quality violations or contributes significantly to a fish kill is a violation of this permit.
9. The Permittee may only discharge, as a result of maintenance activities, during the out-going tide (after a high tide and before the subsequent low tide).
10. The Permittee should consider fish migration patterns when scheduling maintenance discharges.

S1.B. Mixing zone authorization

Outfall 001 – Puget Sound (marine)

The following paragraphs define the maximum boundaries of the mixing zones:

Chronic mixing zone

The chronic mixing zone consists of circles surrounding each discharge port with radii of 825 feet measured from the center of each port. The mixing zone extends from the bottom to the top of the water column. The concentration of pollutants at the edge of the chronic zone must meet chronic aquatic life criteria and human health criteria.

Acute mixing zone

The extended acute mixing zone consists of circles surrounding each discharge port with radii of 82 feet measured from the center of each port. The mixing zone extends from the bottom to the top of the water column. The concentration of pollutants at the edge of the acute zone must meet acute aquatic life criteria.

Outfall 001 - Available Dilution (dilution factor)	
Acute Aquatic Life Criteria	186
Chronic Aquatic Life Criteria	225
Human Health Criteria - Carcinogen	428
Human Health Criteria - Non-carcinogen	428

Outfall 002 – Green River (freshwater)

The Green River outfall is used as an emergency/backup outfall and is permitted for maintenance purposes only; emergency discharges from this outfall are permitted under S5.F. No chronic mixing zone is granted because maintenance discharges are permitted for durations of 4 hours or less.

Acute mixing zone

The acute mixing zone encompasses 25% of the river flow in accordance with WAC 173-201A-400(12). The resulting dilution factor is 5.0. The mixing zone extends 100 feet upstream, 300 feet downstream, and from the bottom to the top of the water column. The concentration of pollutants at the edge of the acute zone must meet acute aquatic life criteria.

Outfall 002 - Available Dilution (dilution factor)	
Chronic Dilution Ratio*	Not Applicable
Acute Dilution Ratio	5.0:1

* Maintenance discharges are permitted for durations of 4 hours or less and therefore a chronic dilution factor is not applicable.

S2. Monitoring requirements

S2.A. Monitoring schedules

The Permittee must monitor in accordance with the following schedules and must use the laboratory method, detection level (DL), and quantitation level (QL) specified in Appendix A or corresponding Sampling Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) documents. Alternative methods from 40 CFR Part 136 are acceptable for those parameters without limits, and if the DL and QL are equivalent to those specified in Appendix A, corresponding SAP/QAPP documents, or sufficient to produce a measurable quantity.

Monitoring Requirements for Outfall 001 – Puget Sound

Parameter	Units	Minimum Sampling Frequency	Sample Type
(1) Wastewater influent (raw sewage from the collection system into the treatment facility)			
BOD_5	mg/L	1/week	24-hour composite [a]
	lbs/day [b]	1/week	Calculation
$CBOD_5$	mg/L	4/week	24-hour composite
	lbs/day [b]	4/week	Calculation
TSS	mg/L	4/week	24-hour composite
	lbs/day [b]	4/week	Calculation
(2) Final wastewater effluent (wastewater exiting the last treatment process or operation)			
Flow	MGD	Continuous [c]	Metered/recorded
$CBOD_5$ [d]	mg/L	4/week	24-hour composite
	lbs/day [b]	4/week	Calculation
	% removal [e]	Monthly	Calculation
TSS	mg/L	4/week	24-hour composite
	lbs/day [b]	4/week	Calculation
	% removal [e]	Monthly	Calculation
Chlorine (Total Residual)	µg/L	Continuous	Metered/recorded
Fecal Coliform [f]	# /100 ml	5/week	Grab [g]
pH [h]	Standard Units	Continuous	Metered/recorded
Total Ammonia	mg/L as N	Monthly	24-hour composite
	lbs/day [b]	Monthly	Calculation
Nitrate plus Nitrite Nitrogen	mg/L as N	Monthly	24-hour composite
Total Kjeldahl Nitrogen (TKN)	mg/L as N	Monthly	24-hour composite
Total Phosphorus	mg/L as P	Monthly	24-hour composite
Soluble Reactive Phosphorus	mg/L as P	Monthly	24-hour composite
Cyanide	micrograms/liter (µg/L)	2/year: Aug & Jan	Grab

Parameter	Units	Minimum Sampling Frequency	Sample Type
Total Phenolic Compounds	µg/L	2/year: Aug & Jan	Grab
Priority Pollutants (PP) – Total Metals [i]	µg/L ng/L for mercury	2/year: Aug & Jan	24-hour composite Grab for mercury
PP – Volatile Organic Compounds [i]	µg/L	2/year: Aug & Jan	Grab
PP – Acid-extractable Compounds [i]	µg/L	2/year: Aug & Jan	24-hour composite
PP – Base-neutral Compounds [i]	µg/L	2/year: Aug & Jan	24-hour composite
PP – PCBs [i]	µg/L	2/year: Aug & Jan	24-hour composite
(3) Whole effluent toxicity testing – As specified in Permit Conditions S10 & S11			
Acute Toxicity Testing		2/permit cycle	24-hour composite
Chronic Toxicity Testing		2/permit cycle	24-hour composite
(4) Pretreatment - As specified in Permit Condition S6			
(5) Permit Application Requirements – Final Wastewater Effluent			
Dissolved Oxygen	mg/L	1/year in Aug	Grab
Oil and Grease (HEM)	mg/L	1/year in Aug	Grab
Total Dissolved Solids	mg/L	1/year in Aug	24-hour composite
Total Hardness	mg/L	1/year in Aug	24-hour composite
Alkalinity	mg/L as CaCO3	1/year in Aug	Grab
Temperature	˚C	1/year in Aug	Grab
(6) Sediment - As specified in Permit Condition S9			

[a] 24-hour composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.

[b] lbs/day = Concentration (in mg/L) x Flow (in MGD) x Conversion Factor (8.34). Calculate using the average flow measured during the sample collection period.

[c] "Continuous" means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance. The time interval for the associated data logger must be no greater than 30 minutes. The Permittee must sample every six hours when continuous monitoring is not possible.

[d] Effluent samples for $CBOD_5$ analysis may be taken before or after the disinfection process. If taken after, dechlorinate and reseed the sample.

[e] % removal = $\frac{\text{Influent monthly average conc. (mg/L)} - \text{Effluent monthly average conc. (mg/L)}}{\text{Influent monthly average concentration (mg/L)}} \times 100$

[f] Report a numerical value for fecal coliforms following the procedures in Ecology's *Information Manual for Wastewater Treatment Plant Operators*, Publication Number 04-10-020 available at: http://www.ecy.wa.gov/programs/wq/permits/guidance.html. Do not report a result as too numerous to count (TNTC).

[g] Grab means an individual sample collected over a fifteen (15) minute, or less, period.

[h] Report the instantaneous maximum and minimum pH daily. Do not average pH values.

[i] Record and report the effluent flow discharged on the day of the priority pollutant samples.

See Appendix A or corresponding SAP/QAPP for the required detection (DL) or quantitation (QL) levels.

Report single analytical values below detection as "less than (detection level)" where (detection level) is the numeric value specified in Appendix A.

Report single analytical values between the detection and quantitation levels with qualifier code of 'j' following the value. If unable to obtain the required DL and QL due to matrix effects, the Permittee must submit a matrix specific MDL and a QL with appropriate laboratory documentation.

Monitoring Requirements for Outfall 002A – Green River

Parameter	Units	Minimum Sampling Frequency	Sample Type
(1) Wastewater Final Effluent (wastewater exiting the last treatment process or operation)			
Effluent Flow - maximum	MGD	Continuous	Metered/recorded
Duration	Hours	Once per event	Measurement
$CBOD_5$	mg/L	Once per event	Composite of equal volume grab samples during event
TSS	mg/L	Once per event	Composite of equal volume grab samples during event
pH	s.u.	Continuous	Metered/recorded
Fecal Coliform	# /100 ml	Once per event	Grab
Total Residual Chlorine	µg/L	Continuous	Metered/recorded
Dilution Factor *	None	Once per event	Calculated
(2) Downstream of Discharge - 300 feet			
River Flow	cfs	Once per event	Measurement
Turbidity	NTU	Once per event	Grab
(3) Upstream of Discharge			
Turbidity	NTU	Once per event	Grab

* Dilution Factor = [0.25 * River Flow, MGD] / [Effluent Flow, MGD], report as comment on DMR

S2.B. Sampling and analytical procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters. The Permittee must conduct representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions that may affect effluent quality.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 (or as applicable in 40 CFR subchapters N [Parts 400–471] or O [Parts 501-503]) unless otherwise specified in this permit . Ecology may only specify alternative methods for parameters without permit limits and for those parameters without an EPA approved test method in 40 CFR Part 136.

S2.C. Flow measurement and continuous monitoring devices

The Permittee must:

1. Select and use appropriate flow measurement and continuous monitoring devices and methods consistent with accepted scientific practices.

2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard, the manufacturer's recommendation, and approved O&M manual procedures for the device and the wastestream.
3. Calibrate continuous monitoring instruments consistent with the manufacturer's recommendation.
4. Maintain calibration records for at least three years.

S2.D. Laboratory accreditation

The Permittee must ensure that all monitoring data required by Ecology for permit specified parameters is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. Flow and internal process control parameters are exempt from this requirement.

S3. Reporting and recording requirements

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

S3.A. Discharge monitoring reports

The first monitoring period begins on the effective date of the permit. Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic discharge monitoring report (DMR) form provided by Ecology within the Water Quality Permitting Portal. Include data for each of the parameters tabulated in Special Condition S2 and as required by the form. Report a value for each day sampling occurred and for the summary values (when applicable) included on the electronic form.

   To find out more information and to sign up for the Water Quality Permitting Portal go to: http://www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html
2. Enter the "No Discharge" reporting code for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.
3. Report single analytical values below detection as "less than the detection level (DL)" by entering < followed by the numeric value of the detection level (e.g. < 2.0) on the DMR. If the method used did not meet the minimum DL and quantitation level (QL) identified in the permit, report the actual QL and DL in the comments or in the location provided.
4. **Not** report zero for bacteria monitoring. Report as required by the laboratory method.
5. Calculate the geometric mean values for bacteria using:

a. The reported numeric value for all bacteria samples measured above the detection value except when it took multiple samples in one day. If the Permittee takes multiple samples in one day it must use the arithmetic average for that day in the geometric mean calculation.

b. The detection value for those samples measured below detection.

6. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit and as allowed in Appendix A.

7. Calculate average values and total values (unless otherwise specified in the permit) using:

   a. The reported numeric value for all parameters measured between the agency-required detection value and the agency-required quantitation value.

   b. One-half the detection value (for values reported below detection) if the lab detected the parameter in another sample from the same monitoring point for the reporting period.

   c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for the reporting period.

8. Report single-sample grouped parameters (for example: priority pollutants) on the WQWebDMR form and include sample date, concentration detected, detection limit (DL) (as necessary), laboratory quantitation level (QL) (as necessary), and CAS number. The Permittee must also submit an electronic copy of the laboratory report as an attachment using WQWebDMR. The contract laboratory reports must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter.

9. Ensure that DMRs are electronically submitted no later than the dates specified below, unless otherwise specified in this permit.

10. Submit DMRs in WQWebDMR for parameters with the monitoring frequencies specified in S2 (monthly, annually, etc.) at the reporting schedule identified below. The Permittee must:

    a. Submit **monthly** DMRs by the 15th day of the following month.

    b. Submit **annual** DMRs by July 31th for the previous calendar year. These submittals must include the permit renewal application monitoring data, priority pollutant, cyanide, and phenolic compound data as required in Special Condition S2.A. The annual sampling period is the calendar year.

S3.B. Permit submittals and schedules

The Permittee must use the *Water Quality Permitting Portal – Permit Submittals* application to submit all other written permit-required reports by the date specified in the permit.

When another permit condition requires submittal of a paper (hard-copy) report, the Permittee must ensure that it is postmarked or received by Ecology no later than the dates specified by this permit. Send these paper reports to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

S3.C. Records retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

S3.D. Recording of results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

S3.E. Additional monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Special Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR unless otherwise specified by Special Condition S2.

S3.F. Reporting permit violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
2. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.

a. Immediate reporting

The Permittee must **immediately** report to Ecology and the Department of Health, Shellfish Program, and Public Health of Seattle-King County (phone numbers listed below), all:

- Failures of the disinfection system
- Collection system overflows
- Plant bypasses discharging to marine surface waters
- Any other failures of the sewage system (pipe breaks, etc.)

The Permittee must also *immediately* report any collection system overflows discharging to a waterbody used as a source of drinking water to Ecology, the Department of Health Drinking Water Program, and Public Health of Seattle-King County.

Ecology - Northwest Regional Office	425-649-7000
Department of Health - Shellfish Program	360-236-3330 (business hours) 360-789-8962 (after business hours)
Public Health of Seattle-King County	206-477-8177
Department of Health, Drinking Water Program	800-521-0323 (business hours) 877-481-4901 (after business hours)

Additionally, for any sanitary sewer overflow (SSO) that discharges to a municipal separate storm sewer system (MS4), the Permittee must notify the appropriate MS4 owner or operator.

b. Twenty-four-hour reporting

The Permittee must report the following occurrences of noncompliance by telephone, to Ecology at the telephone number listed above, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

i. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.

ii. Any unanticipated bypass that causes an exceedance of an effluent limit in the permit (See Part S5.F, "Bypass Procedures").

iii. Any upset that causes an exceedance of an effluent limit in the permit (see G15, "Upset").

iv. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Section S1.A of this permit.

v. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit.

c. Report within five days

The Permittee must also submit a written report within five business days of the time that the Permittee becomes aware of any reportable event under subparts a or b, above. The report must contain:

i. A description of the noncompliance and its cause.

ii. The period of noncompliance, including exact dates and times.

iii. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.

iv. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

v. If the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

d. Waiver of written reports

Ecology may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

e. All other permit violation reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

S3.G. Other reporting

1. Spills of oil or hazardous materials

   The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and chapter 173-303-145. You can obtain further instructions at the following website: http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm .

2. Failure to submit relevant or correct facts

   Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

S3.H. Maintaining a copy of this permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

S4. Facility loading

S4.A. Design criteria

The flows or waste loads for the permitted facility must not exceed the following design criteria:

Maximum Month Design Flow (MMDF)	144 MGD
BOD_5 Influent Loading for Maximum Month	251,000 lbs/day
TSS Influent Loading for Maximum Month	235,000 lbs/day

S4.B. Plans for maintaining adequate capacity

1. Conditions triggering plan submittal

   The Permittee must submit a plan and a schedule for continuing to maintain capacity to Ecology when:

   a. The actual flow or waste load reaches 85 percent of any one of the design criteria in S4.A for three consecutive months.

   b. The projected plant flow or loading would reach design capacity within five years.

2. Plan and schedule content

   The plan and schedule must identify the actions necessary to maintain adequate capacity for the expected population growth and to meet the limits and requirements of the permit. The Permittee must consider the following topics and actions in its plan.

   a. Analysis of the present design and proposed process modifications.

   b. Reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system.

   c. Limits on future sewer extensions or connections or additional waste loads.

   d. Modification or expansion of facilities.

   e. Reduction of industrial or commercial flows or waste loads

   Engineering documents associated with the plan must meet the requirements of WAC 173-240-060, "Engineering Report," and be approved by Ecology prior to any construction.

S4.C. Duty to mitigate

The Permittee must take all reasonable steps to minimize or prevent any discharge or biosolids use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

S4.D. Notification of new or altered sources

1. The Permittee must submit written notice to Ecology whenever any new discharge or a substantial change in volume or character of an existing discharge into the wastewater treatment plant is proposed which:
    a. Would interfere with the operation of, or exceed the design capacity of, any portion of the wastewater treatment plant.
    b. Is not part of an approved general sewer plan or approved plans and specifications.
    c. Is subject to pretreatment standards under 40 CFR Part 403 and Section 307(b) of the Clean Water Act.
2. This notice must include an evaluation of the wastewater treatment plant's ability to adequately transport and treat the added flow and/or waste load, the quality and volume of effluent to be discharged to the treatment plant, and the anticipated impact on the Permittee's effluent [40 CFR 122.42(b)].

S4.E. Wasteload assessment

The Permittee must conduct an assessment of its influent flow and waste load and submit a report to Ecology by October 31, 2018. The report must contain:

1. A description of compliance or noncompliance with the permit effluent limits.
2. A comparison between the existing and design:
    a. Monthly average dry weather and wet weather flows.
    b. Maximum month flows.
    c. Peak flows.
    d. BOD_5 loadings.
    e. Total suspended solids loadings.
3. The percent change in the above parameters since the previous report.
4. The present and design population or population equivalent.
5. The projected population growth rate.
6. The estimated date upon which the Permittee expects the wastewater treatment plant to reach design capacity, according to the most restrictive of the parameters above.
7. An Infiltration and Inflow (I/I) update that describes:
    a. For the collection system owned and operated by the County:
        i. The results of recent I/I monitoring
        ii. A summary of recent I/I improvement projects.
        iii. Projects planned to improve I/I.

b. For the collection systems owned and operated by component agencies:

i. Measures taken to encourage component agencies to control I/I.

ii. Any known I/I concerns.

iii. Steps planned to further encourage I/I reduction projects.

S5. Operation and maintenance

The Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes keeping a daily operation logbook (paper or electronic), adequate laboratory controls, and appropriate quality assurance procedures. This provision of the permit requires the Permittee to operate backup or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of this permit.

S5.A. Certified operator

This permitted facility must be operated by an operator certified by the state of Washington for at least a Class IV plant. This operator must be in responsible charge of the day-to-day operation of the wastewater treatment plant. An operator certified for at least a Class III plant must be in charge during all regularly scheduled shifts.

S5.B. Operation and maintenance program

The Permittee must:

1. Institute an adequate operation and maintenance program for the entire sewage system.
2. Keep maintenance records on all major electrical and mechanical components of the treatment plant, as well as the sewage system and pumping stations. Such records must clearly specify the frequency and type of maintenance recommended by the manufacturer and must show the frequency and type of maintenance performed.
3. Make maintenance records available for inspection at all times.

S5.C. Short-term reduction

The Permittee must schedule any facility maintenance, which might require interruption of wastewater treatment and degrade effluent quality, during non-critical water quality periods and carry this maintenance out according to the approved O&M manual or as otherwise approved by Ecology.

If a Permittee contemplates a reduction in the level of treatment that would cause a violation of permit discharge limits on a short-term basis for any reason, and such reduction cannot be avoided, the Permittee must:

1. Give written notification to Ecology, if possible, thirty (30) days prior to such activities.
2. Detail the reasons for, length of time of, and the potential effects of the reduced level of treatment.

This notification does not relieve the Permittee of its obligations under this permit.

S5.D. Electrical power failure

The Permittee must ensure that adequate safeguards prevent the discharge of untreated wastes or wastes not treated in accordance with the requirements of this permit during electrical power failure at the treatment plant and/or sewage lift stations. Adequate safeguards include, but are not limited to, alternate power sources, standby generator(s), or retention of inadequately treated wastes.

The Permittee must maintain Reliability Class II (EPA 430-99-74-001) at the wastewater treatment plant. Reliability Class II requires a backup power source sufficient to operate all vital components and critical lighting and ventilation during peak wastewater flow conditions. Vital components used to support the secondary processes (i.e., mechanical aerators or aeration basin air compressors) need not be operable to full levels of treatment, but must be sufficient to maintain the biota.

S5.E. Prevent connection of inflow

The Permittee must strictly enforce its sewer ordinances and not allow the connection of inflow (roof drains, foundation drains, etc.) to the sanitary sewer system within King County control.

S5.F. Bypass procedures

This permit prohibits a bypass, which is the intentional diversion of waste streams from any portion of a treatment facility. Ecology may take enforcement action against a Permittee for a bypass unless one of the following circumstances (1, 2, or 3) applies.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

   This permit authorizes a bypass if it allows for essential maintenance and does not have the potential to cause violations of limits or other conditions of this permit, or adversely impact public health as determined by Ecology prior to the bypass. The Permittee must submit prior notice, if possible, at least ten (10) days before the date of the bypass.

2. Bypass which is unavoidable, unanticipated, and results in noncompliance of this permit.

   This permit authorizes such a bypass only if:

a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

b. No feasible alternatives to the bypass exist, such as:

- The use of auxiliary treatment facilities.
- Retention of untreated wastes.
- Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass.
- Transport of untreated wastes to another treatment facility.

c. Ecology is properly notified of the bypass as required in Special Condition S3.F of this permit.

3. If bypass is anticipated and has the potential to result in noncompliance of this permit.

a. The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:

- A description of the bypass and its cause.
- An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
- A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
- The minimum and maximum duration of bypass under each alternative.
- A recommendation as to the preferred alternative for conducting the bypass.
- The projected date of bypass initiation.
- A statement of compliance with SEPA.
- A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
- Details of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process. The project-specific engineering report or facilities plan as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where

the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.

c. Ecology will consider the following prior to issuing an administrative order for this type of bypass:

- If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
- If feasible alternatives to bypass exist, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
- If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve or deny the request. Ecology will give the public an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Ecology will approve a request to bypass by issuing an administrative order under RCW 90.48.120.

S5.G. Operations and maintenance (O&M) manuals

1. O&M manual submittal and requirements

   The Permittee must:

   a. Review the O&M Manuals at least annually.

   b. Submit to Ecology for review and approval substantial changes or updates to the O&M Manuals.

   c. Keep the approved O&M Manuals at the permitted facility.

   d. Follow the instructions and procedures of the manuals.

2. O&M manual components

   In addition to the requirements of WAC 173-240-080 (1) through (5), the O&M manuals must include:

   a. Emergency procedures for cleanup in the event of wastewater system upset or failure.

   b. A review of system components which if failed could pollute surface water or could impact human health. Provide a procedure for a routine schedule of checking the function of these components.

   c. Wastewater system maintenance procedures that contribute to the generation of process wastewater.

d. Reporting protocols for submitting reports to Ecology to comply with the reporting requirements in the discharge permit.

e. Any directions to maintenance staff when cleaning or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine).

f. The treatment plant process control monitoring schedule.

S6. Pretreatment

S6.A. General requirements

1. The Permittee must implement the Industrial Pretreatment Program in accordance with King County Code 28.84.060 as amended by King County Ordinance No. 11963 on January 1, 1996, legal authorities, policies, procedures, and financial provisions described in the Permittee's approved pretreatment program submittal entitled "Industrial Pretreatment Program" and dated April 27, 1981; any approved revisions thereto; and the General Pretreatment Regulations (40 CFR Part 403). At a minimum, the Permittee must undertake the following pretreatment implementation activities:

   a. Enforce categorical pretreatment standards under Section 307(b) and (c) of the Federal Clean Water Act (hereinafter, the Act), prohibited discharge standards as set forth in 40 CFR 403.5, local limits, or state standards, which ever are most stringent or apply at the time of issuance or modification of a local industrial waste discharge permit. Locally derived limits are defined as pretreatment standards under Section 307(d) of the Act and are not limited to categorical industrial facilities.

   b. Issue industrial waste discharge permits to all significant industrial users [SIUs, as defined in 40 CFR 403.3(v)(i)(ii)] contributing to the treatment system, including those from other jurisdictions. Industrial waste discharge permits must contain as a minimum, all the requirements of 40 CFR 403.8 (f)(l)(iii). The Permittee must coordinate the permitting process with Ecology regarding any industrial facility which may possess a state waste discharge permit issued by Ecology.

   c. Maintain and update, as necessary, records identifying the nature, character, and volume of pollutants contributed by industrial users to the treatment works. The Permittee must maintain records for at least a three-year period.

   d. Perform inspections, surveillance, and monitoring activities on industrial users to determine or confirm compliance with pretreatment standards and requirements. The Permittee must conduct a thorough inspection of SIUs annually, except Middle-Tier Categorical Industrial Users, as defined by 40 CFR 403.8(f)(2)(v)(B)&(C), need only be inspected once every two

years. The Permittee must conduct regular local monitoring of SIU wastewaters commensurate with the character and volume of the wastewater but not less than once per year except for Middle-Tier Categorical Industrial Users which may be sampled once every two years. The Permittee must collect and analyze samples in accordance with 40 CFR Part 403.12(b)(5)(ii)-(v) and 40 CFR Part 136.

e. Enforce and obtain remedies for non-compliance by any industrial users with applicable pretreatment standards and requirements. Once violations have been identified, the Permittee must take timely and appropriate enforcement action to address the non-compliance. The Permittee's action must follow its enforcement response procedures and any amendments, thereof.

f. Publish, at least annually in a newspaper of general circulation within the Permittee's service area, a list of all non-domestic users which, at any time in the previous 12 months, were in significant non-compliance as defined in 40 CFR 403.8(f)(2)(vii).

g. If the Permittee elects to conduct sampling of an SIU's discharge in lieu of requiring user self-monitoring, it must satisfy all requirements of 40 CFR Part 403.12. This includes monitoring and record keeping requirements of sections 403.12(g) and (o). For SIU's subject to categorical standards (i.e., CIUs), the Permittee may either complete baseline and initial compliance reports for the CIU (when required by 403.12(b) and (d)) or require these of the CIU. The Permittee must ensure SIUs are provided the results of sampling in a timely manner, inform SIUs of their right to sample, their obligations to report any sampling they do, to respond to non-compliance, and to submit other notifications. These include a slug load report (403.12(f)), notice of changed discharge (403.12(j)), and hazardous waste notifications (403.12(p)). If sampling for the SIU, the Permittee must not sample less than once in every six month period unless the Permittee's approved program includes procedures for reduction of monitoring for Middle-Tier or Non-Significant Categorical Users per 403.12(e)(2) and (3) and those procedures have been followed.

h. Develop and maintain a data management system designed to track the status of the Permittee's industrial user inventory, industrial user discharge characteristics, and compliance status.

i. Maintain adequate staff, funds, and equipment to implement its pretreatment program.

j. Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by commercial or industrial users within these jurisdictions. These contracts or agreements must identify the agency responsible for the various implementation and enforcement activities to be performed in the contributing jurisdiction.

2. Per 40 CFR 403.8(f)(2)(vii), the Permittee must evaluate each Significant Industrial User to determine if a Slug Control Plan is needed to prevent slug discharges which may cause interference, pass-through, or in any other way result in violations of the Permittee's regulations, local limits or permit conditions. The Slug Control Plan evaluation shall occur within one year of a user's designation as a SIU. In accordance with 40 CFR 403.8(f)(1)(iii)(B)(6) the Permittee shall include slug discharge control requirements in an SIU's permit if the Permittee determines that they are necessary.

3. Whenever Ecology determines that any waste source contributes pollutants to the Permittee's treatment works in violation of Subsection (b), (c), or (d) of Section 307 of the Act, and the Permittee has not taken adequate corrective action, Ecology will notify the Permittee of this determination. If the Permittee fails to take appropriate enforcement action within 30 days of this notification, Ecology may take appropriate enforcement action against the source or the Permittee.

4. Pretreatment Report

   The Permittee must provide to Ecology an annual report that briefly describes its program activities during the previous calendar year. By April 30th, the Permittee must send the annual report to Ecology at:

   Water Quality Permit Coordinator
   Department of Ecology
   Northwest Regional Office
   3190 160th Avenue SE
   Bellevue, WA 98008-5452

   The report must include the following information:

   a. An updated listing of non-domestic industrial dischargers.

   b. Results of wastewater sampling at the treatment plant as specified in Subsection S6.B below. The Permittee must calculate removal rates for each pollutant and evaluate the adequacy of the existing local limits in prevention of treatment plant interference, pass through of pollutants that could affect receiving water quality and biosolids contamination.

   c. Status of program implementation, including:

      i. Any substantial modifications to the pretreatment program as originally approved by Ecology, including staffing and funding levels.

      ii. Any interferences, upsets, or permit violations experienced at the WWTP that are directly attributable to wastes from industrial users.

      iii. Listing of industrial users inspected and/or monitored, and a summary of the results.

      iv. Listing of industrial users scheduled for inspection and/or monitoring for the next year, and expected frequencies.

v. Listing of industrial users notified of promulgated pretreatment standards and/or local standards as required in 40 CFR 403.8(f)(2)(iii). The list must indicate which industrial users are on compliance schedules and the final date of compliance for each.

vi. Listing of industrial users issued industrial waste discharge permits.

vii. Planned changes in the pretreatment program implementation plan.

d. Status of compliance activities, including:

i. Listing of industrial users that failed to submit baseline monitoring reports or any other reports required under 40 CFR 403.12 and in the Permittee's pretreatment program, dated April 27, 1981.

ii. Listing of industrial users that were at any time during the reporting period not complying with federal, state, or local pretreatment standards or with applicable compliance schedules for achieving those standards, and the duration of such non-compliance.

iii. Summary of enforcement activities and other corrective actions taken or planned against non-complying industrial users. The Permittee must supply to Ecology a copy of the public notice of facilities that were in significant non-compliance.

5. The Permittee must request and obtain approval from Ecology before making any significant changes to the approved local pretreatment program. The Permittee must follow the procedure in 40 CFR 403.18 (b) and (c).

S6.B. Monitoring requirements

The Permittee must monitor its influent, effluent, and biosolids at the South Plant WWTP for the priority pollutants identified in Tables II and III of Appendix D of 40 CFR Part 122 as amended, any compounds identified as a result of Condition S6.B.4, and any other pollutants expected from nondomestic sources using U.S. EPA-approved procedures for collection, preservation, storage, and analysis. The Permittee must test influent, effluent, and biosolids samples for the priority pollutant metals (Table III, 40 CFR 122, Appendix D) on a quarterly basis throughout the term of this permit. The Permittee must test influent, effluent, and biosolids samples for the organic priority pollutants (Table II, 40 CFR 122, Appendix D) on an annual basis.

1. The Permittee must sample South Plant WWTP influent and effluent on a day when industrial discharges are occurring at normal to maximum levels. The Permittee must obtain 24-hour composite samples for the analysis of acid and base/neutral extractable compounds and metals. The Permittee must collect samples for the analysis of volatile organic compounds and samples must be collected using grab sampling techniques at equal intervals for a total of four grab samples per day.

   The laboratory may run a single analysis for volatile pollutants (using GC/MS procedures approved by 40 CFR 136) for each monitoring day by

compositing equal volumes of each grab sample directly in the GC purge and trap apparatus in the laboratory, with no less than 1 ml of each grab included in the composite.

Unless otherwise indicated, all reported test data for metals must represent the total amount of the constituent present in all phases, whether solid, suspended, or dissolved, elemental or combined including all oxidation states.

The Permittee must handle, prepare, and analyze all wastewater samples taken for GC/MS analysis using procedures approved by 40 CFR 136.

2. The Permittee must collect a biosolids sample concurrently with a wastewater sample as a single grab sample of residual biosolids. Sampling and analysis must be performed using procedures approved by 40 CFR 136 unless the Permittee requests an alternate method and Ecology has approved.

3. The Permittee must take cyanide, phenols, and oils as grab samples. Oils must be hexane soluble or equivalent, and should be measured in the influent and effluent only.

4. In addition to quantifying pH, oil and grease, and all priority pollutants, the Permittee must make a reasonable attempt to identify all other substances and quantify all pollutants shown to be present by gas chromatograph/mass spectrometer (GC/MS) analysis using procedures approved by 40 CFR 136. The Permittee should attempt to make determinations of pollutants for each fraction, which produces identifiable spectra on total ion plots (reconstructed gas chromatograms). The Permittee should attempt to make determinations from all peaks with responses 5% or greater than the nearest internal standard. The 5% value is based on internal standard concentrations of 30 μg/l, and must be adjusted downward if higher internal standard concentrations are used or adjusted upward if lower internal standard concentrations are used. The Permittee may express results for non-substituted aliphatic compounds as total hydrocarbon content. The Permittee must use a laboratory whose computer data processing programs are capable of comparing sample mass spectra to a computerized library of mass spectra, with visual confirmation by an experienced analyst. For all detected substances which are determined to be pollutants, the Permittee must conduct additional sampling and appropriate testing to determine concentration and variability, and to evaluate trends.

S6.C. Reporting of monitoring results

The Permittee must include a summary of monitoring results in the Annual Pretreatment Report.

S6.D. Local limit development

As sufficient data become available, the Permittee must, in consultation with Ecology, reevaluate their local limits in order to prevent pass through or interference. If Ecology determines that any pollutant present causes pass through or interference, or exceeds established biosolids standards, the Permittee must

establish new local limits or revise existing local limits as required by 40 CFR 403.5. Ecology may also require the Permittee to revise or establish local limits for any pollutant discharged from the treatment works that has a reasonable potential to exceed the water quality standards, sediment standards, or established effluent limits, or causes whole effluent toxicity. Ecology makes this determination in the form of an Administrative Order.

Ecology may modify this permit to incorporate additional requirements relating to the establishment and enforcement of local limits for pollutants of concern. Any permit modification is subject to formal due process procedures under state and federal law and regulation.

S7. Solid wastes

S7.A. Solid waste handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

S7.B. Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee must apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

S8. Spill control plan

S8.A Spill control plan submittals and requirements

The Permittee must:

1. Review the existing spill plan at least annually and update the spill plan as needed.
2. Send significant changes to the plan to Ecology.
3. Follow the plan and any supplements throughout the term of the permit.

S8.B. Spill control plan components

The spill control plan must include the following:

1. A list of all oil and petroleum products and other materials used and/or stored on-site, which when spilled, or otherwise released into the environment, designate as dangerous waste (DW) or extremely hazardous waste (EHW) by the procedures set forth in WAC 173-303-070. Include other materials used and/or stored on-site which may become pollutants or cause pollution upon reaching state's waters.

2. A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) which prevent, contain, or treat spills of these materials.
3. A description of the reporting system the Permittee will use to alert responsible managers and legal authorities in the event of a spill.
4. A description of operator training to implement the plan.

The Permittee may submit plans and manuals required by 40 CFR Part 112, contingency plans required by Chapter 173-303 WAC, or other plans required by other agencies, which meet the intent of this section.

S9. Sediment monitoring

S9.A. Sediment sampling and analysis plan

The Permittee must submit to Ecology for review and approval a sediment sampling and analysis plan for sediment monitoring by December 1, 2016. The purpose of the plan is to recharacterize sediment (the nature and extent of chemical contamination and biological toxicity) quality in the vicinity of the Permittee's discharge locations. The Permittee must sample the top 10 cm of sediment at the same eight stations sampled during the previous permit term, and the sediments must be analyzed for the 47 chemicals with SMS numeric criteria as well as conventional analytes. The Permittee must follow the guidance provided in the current version of the *Sediment Source Control Standards User Manual, Appendix B: sediment sampling and analysis plan.*

S9.B. Sediment data report

Following Ecology approval of the sediment sampling and analysis plan, the Permittee must collect sediments between August 15th and September 30th of 2017. The Permittee must submit to Ecology a sediment data report containing the results of the sediment sampling and analysis no later than December 1, 2018. The sediment data report must conform to the approved sediment sampling and analysis plan. The report must document when the data was successfully loaded into EIM as required below.

In addition to a sediment data report, submit the sediment chemical and any biological data to Ecology's EIM database (http://www.ecy.wa.gov/eim/). Data must be submitted to EIM according to the instructions on the EIM website. The data submittal portion of the EIM website (http://www.ecy.wa.gov/eim/submitdata.htm) provides information and help on formats and requirements for submitting tabular data.

S10. Acute toxicity

S10.A. Testing when there is no permit limit for acute toxicity

The Permittee must:

1. Conduct acute toxicity testing on final effluent once in the first quarter of 2018 and once in the third quarter of 2018.
2. Conduct acute toxicity testing on a series of at least five concentrations of effluent, including 100% effluent and a control.
3. Use each of the following species and protocols for each acute toxicity test:

Acute Toxicity Tests	Species	Method
Fathead minnow 96-hour static-renewal test	*Pimephales promelas*	EPA-821-R-02-012
Daphnid 48-hour static test	*Ceriodaphnia dubia, Daphnia pulex,* or *Daphnia magna*	EPA-821-R-02-012

4. Submit the results to Ecology with the permit renewal application.

S10.B. Sampling and reporting requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain toxicity data, bench sheets, and reference toxicant results for test methods. In addition, the Permittee must submit toxicity test data in electronic format (CETIS export file preferred) for entry into Ecology's database.
2. The Permittee must collect 24-hour composite effluent samples for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Subsection C and the Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Section A or pristine natural water of sufficient quality for good control performance.

6. The Permittee must collect effluent samples for whole effluent toxicity testing just prior to the chlorination step in the treatment process.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the acute critical effluent concentration (ACEC). The ACEC equals 0.54% effluent.
8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing must comply with the acute statistical power standard of 29% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S11. Chronic toxicity

S11.A. Testing when there is no permit limit for chronic toxicity

The Permittee must:

1. Conduct chronic toxicity testing on final effluent once in the second quarter of 2018 and once in the fourth quarter of 2018.
2. Conduct chronic toxicity testing on a series of at least five concentrations of effluent and a control. This series of dilutions must include the acute critical effluent concentration (ACEC). The ACEC equals 0.54% effluent. The series of dilutions should also contain the CCEC of 0.44% effluent.
3. Compare the ACEC to the control using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001.
4. Submit the results to Ecology with the next permit renewal application.
5. Perform chronic toxicity tests with all of the following species and the most recent version of the following protocols:

Saltwater Chronic Test	Species	Method
Topsmelt survival and growth	*Atherinops affinis*	EPA/600/R-95/136
Mysid shrimp survival and growth	*Americamysis bahia* (formerly *Mysidopsis bahia*)	EPA-821-R-02-014

S11.B. Sampling and reporting requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain toxicity data, bench sheets, and reference toxicant results for test methods. In addition, the Permittee must submit toxicity test data in electronic format (CETIS export file preferred) for entry into Ecology's database.

2. The Permittee must collect 24-hour composite effluent samples for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Section C and the Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Subsection C or pristine natural water of sufficient quality for good control performance.
6. The Permittee must collect effluent samples for whole effluent toxicity testing just prior to the chlorination step in the treatment process.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the CCEC and the ACEC. The CCEC and the ACEC may either substitute for the effluent concentrations that are closest to them in the dilution series or be extra effluent concentrations. The CCEC equals 0.44% effluent. The ACEC equals 0.54% effluent.
8. All whole effluent toxicity tests that involve hypothesis testing must comply with the chronic statistical power standard of 39% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S12. Use of effluent from effluent transfer system

The Permittee may distribute effluent from the effluent transfer system (ETS) for use and return to the ETS for discharge via Outfall #001 of this permit – without modification of this permit – under the following conditions:

1. The distributed ETS effluent must meet all treatment and disinfection requirements of Condition S1 of this permit.
2. The effluent is used at the Boeing facility in the approved, closed loop, noncontact chiller project.

3. The Permittee may distribute ETS effluent to a similar closed-loop, noncontact system only after it requests and receives specific written approval from both the Departments of Ecology and Health.
4. The effluent returned to the ETS system for discharge via Outfall #001 must meet all permit requirements for that discharge.
5. The Permittee obtains, files, and enforces a signed user contract assuring compliance with all requirements of the approved project. All new contracts must be approved by the Departments of Ecology and Health and signed by all parties prior to any distribution of the effluent.
6. The Permittee immediately notifies all users during instances of noncompliance.

No other uses of ETS effluent are authorized under this permit.

S13. Application for permit renewal or modification for facility changes

The Permittee must submit an application for renewal of this permit by July 31, 2019.

The Permittee must also submit a new application or supplement at least one hundred eighty (180) days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

General Conditions

G1. Signatory requirements

1. All applications, reports, or information submitted to Ecology must be signed and certified.

   a. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

      - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
      - The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

   b. In the case of a partnership, by a general partner.

   c. In the case of sole proprietorship, by the proprietor.

   d. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

   Applications for permits for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity shall be submitted by the public entity.

2. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to Ecology.

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to authorization. If an authorization under paragraph G1.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G1.2, above, must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section must make the following certification:

   "I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G2. Right of inspection and entry

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

1. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
2. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
3. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
4. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. Permit actions

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the Permittee) or upon Ecology's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 40 CFR 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

1. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
   a. Violation of any permit term or condition.
   b. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
   c. A material change in quantity or type of waste disposal.
   d. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination.

e. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or biosolids use or disposal practice controlled by the permit.

f. Nonpayment of fees assessed pursuant to RCW 90.48.465.

g. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.

2. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:

a. A material change in the condition of the waters of the state.

b. New information not available at the time of permit issuance that would have justified the application of different permit conditions.

c. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.

d. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.

e. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.

f. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.

g. Incorporation of an approved local pretreatment program into a municipality's permit.

3. The following are causes for modification or alternatively revocation and reissuance:

a. When cause exists for termination for reasons listed in 1.a through 1.g of this section, and Ecology determines that modification or revocation and reissuance is appropriate.

b. When Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G7) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

G4. Reporting planned changes

The Permittee must, as soon as possible, but no later than one hundred eighty (180) days prior to the proposed changes, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

1. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).

2. A significant change in the nature or an increase in quantity of pollutants discharged.

3. A significant change in the Permittee's biosolids use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. Plan review required

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with chapter 173-240 WAC. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G6. Compliance with other laws and statutes

Nothing in this permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. Transfer of this permit

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology.

1. Transfers by Modification

   Except as provided in paragraph (2) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

2. Automatic Transfers

   This permit may be automatically transferred to a new Permittee if:

   a. The Permittee notifies Ecology at least thirty (30) days in advance of the proposed transfer date.

   b. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.

   c. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G8. Reduced production for compliance

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G9. Removed substances

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G10. Duty to provide information

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G11. Other requirements of 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. Additional monitoring

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. Payment of fees

The Permittee must submit payment of fees associated with this permit as assessed by Ecology.

G14. Penalties for violating permit conditions

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars ($10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit may incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars ($10,000) for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G15. Upset

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset.
2. The permitted facility was being properly operated at the time of the upset.
3. The Permittee submitted notice of the upset as required in Special Condition S3.E.
4. The Permittee complied with any remedial measures required under S3.E of this permit.

In any enforcement action the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. Property rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. Duty to comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. Toxic pollutants

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. Penalties for tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G20. Compliance schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than fourteen (14) days following each schedule date.

G21. Service agreement review

The Permittee must submit to Ecology any proposed service agreements and proposed revisions or updates to existing agreements for the operation of any wastewater treatment facility covered by this permit. The review is to ensure consistency with chapters 90.46 and 90.48 RCW as required by RCW 70.150.040(9). In the event that Ecology does not comment within a thirty-day (30) period, the Permittee may assume consistency and proceed with the service agreement or the revised/updated service agreement.

Appendix A

LIST OF POLLUTANTS WITH ANALYTICAL METHODS, DETECTION LIMITS AND QUANTITATION LEVELS

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table for permit and application required monitoring unless:

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136, or EPA has granted the laboratory written permission to use the method.
- The Permittee knows that an alternate, less sensitive method (higher DL and QL) from those listed below is sufficient to produce measurable results in their effluent.
- If the Permittee is unable to obtain the required DL and QL due to matrix effects (such as for treatment plant influent or CSO effluent), the Permittee must strive to achieve to lowest possible DL and QL and report the DL and QL in the required report.

If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

All pollutants that have numeric limits in Section S1 of this permit must be analyzed with the methods specified below. When the permit requires the Permittee to measure the base neutral compounds in the list of priority pollutants, it must measure all of the base neutral pollutants listed in the table below. The list includes EPA required base neutral priority pollutants and several additional polynuclear aromatic hydrocarbons (PAHs). The Water Quality Program added several PAHs to the list of base neutrals below from Ecology's Persistent Bioaccumulative Toxics (PBT) List. It only added those PBT parameters of interest to Appendix A that did not increase the overall cost of analysis unreasonably.

Ecology added this appendix to the permit in order to reduce the number of analytical "non-detects" in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost.

CONVENTIONAL PARAMETERS

Pollutant & CAS No. ***(if available)***	**Recommended Analytical Protocol**	**Detection (DL)[1], µg/L unless specified**	**Quantitation Level (QL)[2], µg/L unless specified**
Biochemical Oxygen Demand	SM5210-B		2 mg/L
Total Suspended Solids	SM2540-D		5 mg/L
Total Ammonia (as N)	SM4500-NH3-B and C/D/E/G/H Kerouel & Aminot 1997		0.3 mg/L
Dissolved oxygen	SM4500-OC/OG		0.2 mg/L
Temperature (max. 7-day avg.)	Analog recorder or use micro-recording devices known as thermistors		0.2º C
pH	SM4500-H^+ B	N/A	N/A

NONCONVENTIONAL PARAMETERS

Pollutant & CAS No. (if available)	**Recommended Analytical Protocol**	**Detection (DL)[1], µg/L unless specified**	**Quantitation Level (QL)[2], µg/L unless specified**
Total Alkalinity	SM2320-B		5.0 mg/L as CaCO3
Chlorine, Total Residual	SM4500 Cl G 4500 Cl D/E, Hach 8370		50.0
Fecal Coliform	SM 9221E,9222 B, D	N/A	Specified in method - sample aliquot dependent
Total Coliform	SM 9221B, 9222B,9223B	N/A	Specified in method - sample aliquot dependent
Nitrate + Nitrite Nitrogen (as N)	SM4500-NO3- E/F/H		200
Nitrogen, Total Kjeldahl (as N)	SM4500-N_{org}B/C and SM4500NH_3-B/C/D/EF/G/H EPA 351.2		500
Nitrogen, Total (as N)	SM4500-N-C	50	100
Soluble Reactive Phosphorus (as P)	SM4500- PE/PF	100	100
Phosphorus, Total (as P)	SM 4500 PB followed by SM4500-PE/PF	100	300

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)[1], µg/L unless specified	Quantitation Level (QL)[2], µg/L unless specified
Oil and Grease (HEM)	1664 A or B	1,400	5,000
Salinity	SM2520-B		3 practical salinity units or scale (PSU or PSS)
Settleable Solids	SM2540 -F		Sample and limit dependent
Sulfate (as mg/L SO_4)	SM4110-B, 4500-SO4 E		7.1 mg/L
Sulfide (as mg/L S)	SM4500-S^2F/D/E/G		200
Sulfite (as mg/L SO_3)	SM4500-SO3B		2000
Total dissolved solids	SM2540 C		98 mg/L
Total Hardness	SM2340B C, 200.7, 200.8		200 as $CaCO_3$
Aluminum, Total (7429-90-5)	200.8	2.0	10
Barium Total (7440-39-3)	200.8	0.5	2.0
BTEX (benzene +toluene + ethylbenzene + m,o,p xylenes)	EPA SW 846 8021/8260	1	2
Boron Total (7440-42-8)	200.8	2.0	10.0
Cobalt, Total (7440-48-4)	200.8	0.05	0.25
Iron, Total (7439-89-6)	200.7, 200.8	12.5	50
Magnesium, Total (7439-95-4)	200.7, 200.8	10	50
Molybdenum, Total (7439-98-7)	200.8	0.1	0.5
Manganese, Total (7439-96-5)	200.8	0.1	0.5
NWTPH Dx [4]	Ecology NWTPH Dx	250	250
NWTPH Gx [5]	Ecology NWTPH Gx	250	250
Tin, Total (7440-31-5)	200.8	0.3	1.5
Titanium, Total (7440-32-6)	200.8	0.5	2.5

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)[1], µg/L unless specified	Quantitation Level (QL)[2], µg/L unless specified
METALS, CYANIDE & TOTAL PHENOLS			
Antimony, Total (7440-36-0)	200.8	0.3	1.0
Arsenic, Total (7440-38-2)	200.8	0.1	0.5
Beryllium, Total (7440-41-7)	200.8	0.1	0.5
Cadmium, Total (7440-43-9)	200.8	0.05	0.25
Chromium (hex) dissolved (18540-29-9)	SM3500-Cr B	5	10
Chromium, Total (7440-47-3)	200.8	0.2	1.0
Copper, Total (7440-50-8)	200.8	0.4	2.0
Lead, Total (7439-92-1)	200.8	0.1	0.5
Mercury, Total (7439-97-6)	1631E	0.0002	0.0005
Nickel, Total (7440-02-0)	200.8	0.1	0.5
Selenium, Total (7782-49-2)	200.8	1.0	1.0
Silver, Total (7440-22-4)	200.8	0.04	0.2
Thallium, Total (7440-28-0)	200.8	0.09	0.36
Zinc, Total (7440-66-6)	200.8	0.5	2.5
Cyanide, Total (57-12-5)	335.4, SM4500-CN-C,E	5	10
Cyanide, Weak Acid Dissociable	SM4500-CN I	5	10
Cyanide, Free Amenable to Chlorination (Available Cyanide)	SM4500-CN G	5	10
Phenols, Total	EPA 420.1		50
ACID COMPOUNDS			
2-Chlorophenol (95-57-8)	625	1.0	2.0
2,4-Dichlorophenol (120-83-2)	625	0.5	1.0
2,4-Dimethylphenol (105-67-9)	625	0.5	1.0
4,6-dinitro-o-cresol (534-52-1) (2-methyl-4,6,-dinitrophenol)	625/1625B	2.0	4.0
2,4 dinitrophenol (51-28-5)	625	1.5	3.0
2-Nitrophenol (88-75-5)	625	0.5	1.0
4-nitrophenol (100-02-7)	625	1.0	2.0
Parachlorometa cresol (59-50-7) (4-chloro-3-methylphenol)	625	1.0	2.0
Pentachlorophenol (87-86-5)	625	0.5	1.0

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)[1], µg/L unless specified	Quantitation Level (QL)[2], µg/L unless specified
Phenol (108-95-2)	625	2.0	4.0
2,4,6-Trichlorophenol (88-06-2)	625	2.0	4.0
VOLATILE COMPOUNDS			
Acrolein (107-02-8)	624	5	10
Acrylonitrile (107-13-1)	624	1.0	2.0
Benzene (71-43-2)	624	1.0	2.0
Bromoform (75-25-2)	624	1.0	2.0
Carbon tetrachloride (56-23-5)	624/601 or SM6230B	1.0	2.0
Chlorobenzene (108-90-7)	624	1.0	2.0
Chloroethane (75-00-3)	624/601	1.0	2.0
2-Chloroethylvinyl Ether (110-75-8)	624	1.0	2.0
Chloroform (67-66-3)	624 or SM6210B	1.0	2.0
Dibromochloromethane (124-48-1)	624	1.0	2.0
1,2-Dichlorobenzene (95-50-1)	624	1.9	7.6
1,3-Dichlorobenzene (541-73-1)	624	1.9	7.6
1,4-Dichlorobenzene (106-46-7)	624	4.4	17.6
Dichlorobromomethane (75-27-4)	624	1.0	2.0
1,1-Dichloroethane (75-34-3)	624	1.0	2.0
1,2-Dichloroethane (107-06-2)	624	1.0	2.0
1,1-Dichloroethylene (75-35-4)	624	1.0	2.0
1,2-Dichloropropane (78-87-5)	624	1.0	2.0
1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene) (542-75-6) [6]	624	1.0	2.0
Ethylbenzene (100-41-4)	624	1.0	2.0
Methyl bromide (74-83-9) (Bromomethane)	624/601	5.0	10.0
Methyl chloride (74-87-3) (Chloromethane)	624	1.0	2.0
Methylene chloride (75-09-2)	624	5.0	10.0
1,1,2,2-Tetrachloroethane (79-34-5)	624	1.9	2.0
Tetrachloroethylene (127-18-4)	624	1.0	2.0
Toluene (108-88-3)	624	1.0	2.0
1,2-Trans-Dichloroethylene (156-60-5) (Ethylene dichloride)	624	1.0	2.0
1,1,1-Trichloroethane (71-55-6)	624	1.0	2.0
1,1,2-Trichloroethane (79-00-5)	624	1.0	2.0
Trichloroethylene (79-01-6)	624	1.0	2.0
Vinyl chloride (75-01-4)	624/SM6200B	1.0	2.0
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)			
Acenaphthene (83-32-9)	625	0.2	0.4
Acenaphthylene (208-96-8)	625	0.3	0.6
Anthracene (120-12-7)	625	0.3	0.6
Benzidine (92-87-5)	625	20	40
Benzyl butyl phthalate (85-68-7)	625	0.3	0.6
Benzo(*a*)anthracene (56-55-3)	625	0.3	0.6
Benzo(b)fluoranthene (3,4-benzofluoranthene) (205-99-2) [7]	610/625	0.8	1.6
Benzo(j)fluoranthene (205-82-3) [7]	625	0.5	1.0
Benzo(k)fluoranthene (11,12-benzofluoranthene) (207-08-9) [7]	610/625	0.8	1.6
Benzo(r,s,t)pentaphene (189-55-9)	625	1.3	5.0
Benzo(*a*)pyrene (50-32-8)	610/625	0.5	1.0
Benzo(*ghi*)Perylene (191-24-2)	610/625	0.5	1.0
Bis(*2-chloroethoxy)*methane (111-91-1)	625	5.3	21.2
Bis(*2-chloroethyl*)ether (111-44-4)	611/625	0.3	1.0
Bis(*2-chloroisopropyl*)ether (39638-32-9)	625	0.5	1.0
Bis(*2-ethylhexyl*)phthalate (117-81-7)	625	0.3	1.0
4-Bromophenyl phenyl ether (101-55-3)	625	0.3	0.5
2-Chloronaphthalene (91-58-7)	625	0.3	0.6
4-Chlorophenyl phenyl ether (7005-72-3)	625	0.3	0.5

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)[1], µg/L unless specified	Quantitation Level (QL)[2], µg/L unless specified
Chrysene (218-01-9)	610/625	0.3	0.6
Dibenzo (a,h)acridine (226-36-8)	610M/625M	2.5	10.0
Dibenzo (a,j)acridine (224-42-0)	610M/625M	2.5	10.0
Dibenzo(a-*h*)anthracene (53-70-3)(1,2,5,6-dibenzanthracene)	625	0.8	1.6
Dibenzo(a,e)pyrene (192-65-4)	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene (189-64-0)	625M	2.5	10.0
3,3-Dichlorobenzidine (91-94-1)	605/625	2.0	4.0
Diethyl phthalate (84-66-2)	625	1.9	7.6
Dimethyl phthalate (131-11-3)	625	1.6	6.4
Di-n-butyl phthalate (84-74-2)	625	0.5	1.0
2,4-dinitrotoluene (121-14-2)	609/625	1.0	2.0
2,6-dinitrotoluene (606-20-2)	609/625	1.0	2.0
Di-n-octyl phthalate (117-84-0)	625	0.3	0.6
1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)	1625B, 625	5.0	20
Fluoranthene (206-44-0)	625	0.3	0.6
Fluorene (86-73-7)	625	0.3	0.6
Hexachlorobenzene (118-74-1)	612/625	0.3	0.6
Hexachlorobutadiene (87-68-3)	625	0.5	1.0
Hexachlorocyclopentadiene (77-47-4)	1625B/625	2.0	4.0
Hexachloroethane (67-72-1)	625	0.5	1.0
Indeno(*1,2,3-cd*)Pyrene (193-39-5)	610/625	0.5	1.0
Isophorone (78-59-1)	625	0.5	1.0
3-Methyl cholanthrene (56-49-5)	625	2.0	8.0
Naphthalene (91-20-3)	625	0.4	0.75
Nitrobenzene (98-95-3)	625	0.5	1.0
N-Nitrosodimethylamine (62-75-9)	607/625	2.0	4.0
N-Nitrosodi-n-propylamine (621-64-7)	607/625	0.5	1.0
N-Nitrosodiphenylamine (86-30-6)	625	1.0	2.0
Perylene (198-55-0)	625	1.9	7.6
Phenanthrene (85-01-8)	625	0.3	0.6
Pyrene (129-00-0)	625	0.3	0.6
1,2,4-Trichlorobenzene (120-82-1)	625	0.3	0.6
PCBs			
PCB-1242 [8]	608	0.25	0.5
PCB-1254	608	0.25	0.5
PCB-1221	608	0.25	0.5
PCB-1232	608	0.25	0.5
PCB-1248	608	0.25	0.5
PCB-1260	608	0.13	0.5
PCB-1016 [8]	608	0.13	0.5

1. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.
2. Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – TThe smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).
3. Soluble Biochemical Oxygen Demand method note: First, filter the sample through a Millipore Nylon filter (or equivalent) - pore size of 0.45-0.50 um (prep all filters by filtering 250 ml of laboratory grade deionized water through the filter and discard). Then, analyze sample as per method 5210-B.
4. NWTPH Dx - Northwest Total Petroleum Hydrocarbons Diesel Extended Range – see http://www.ecy.wa.gov/biblio/97602.html
5. NWTPH Gx - Northwest Total Petroleum Hydrocarbons Gasoline Extended Range – see http://www.ecy.wa.gov/biblio/97602.html
6. 1, 3-dichloroproylene (mixed isomers) You may report this parameter as two separate parameters: cis-1, 3-dichlorpropropene (10061-01-5) and trans-1, 3-dichloropropene (10061-02-6).
7. Total Benzofluoranthenes – Because Benzo(b)fluoranthene, Benzo(j)fluoranthene and Benzo(k)fluoranthene co-elute you may report these three isomers as total benzofluoranthenes.
8. PCB 1016 & PCB 1242 – You may report these two PCB compounds as one parameter called PCB 1016/1242.

EXHIBIT C

Issuance Date: December 19, 2014
Effective Date: February 1, 2015
Expiration Date: January 31, 2020

National Pollutant Discharge Elimination System
Waste Discharge Permit No. WA0029181

State of Washington
DEPARTMENT OF ECOLOGY
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq.

KING COUNTY WASTEWATER TREATMENT DIVISION – WEST POINT WASTEWATER TREATMENT PLANT & COMBINED SEWER OVERFLOW SYSTEM

King Street Center, KSC-NR-0512
201 South Jackson Street
Seattle, WA 98104-3855

is authorized to discharge in accordance with the Special and General Conditions that follow.

Facility Name	**West Point Wastewater Treatment Plant** (serves combined sewer area)	**Alki Storage and CSO Treatment Plant**	**Carkeek Storage and CSO Treatment Plant**	**Denny/Elliott West Storage and CSO Treatment Plant**	**Henderson/MLK Storage and CSO Treatment Plant**
Plant Address	1400 Discovery Park Blvd Seattle, WA 98199	3380 Beach Drive SW Seattle, WA 98116-2616	1201 NW Carkeek Park Rd, Seattle, WA 98177-4640	545 Elliott Ave W Seattle, WA 98119	Outlet Regulator 9829 42nd Ave S Seattle, WA 98118
Receiving Water	Puget Sound	Puget Sound	Puget Sound	Elliott Bay	Duwamish Waterway
Plant Type	Secondary, Activated Sludge, Chlorine Disinfection	Satellite CSO Storage and Treatment Plant	Satellite CSO Storage and Treatment Plant	Satellite CSO Storage and Treatment Plant	Satellite CSO Storage and Treatment Plant
Discharge Location:	Lat: 47.661111˚ Long: -122.446389˚	Lat: 47.57025˚ Long: -122.4225˚	Lat: 47.71264˚ Long: -122.38789˚	Lat: 47.61755˚ Long: -122.36186˚	Lat: 47.51194˚ Long: -122.29736˚

Kevin C. Fitzpatrick
Water Quality Section Manager
Northwest Regional Office
Washington State Department of Ecology

Exhibit C

Table of Contents

Summary of Permit Report Submittals

Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report	Monthly Annually	March 15, 2015 July 31, 2015
S3.F	Reporting Permit Violations	As necessary	
S4.B	Plans for Maintaining Adequate Capacity	As necessary	
S4.D	Notification of New or Altered Sources	As necessary	
S4.E	Wasteload Assessment	1/permit cycle	With permit application
S5.F	Bypass Notification	As necessary	
S5.G	Operations and Maintenance Update	As necessary	
S6.A	Pretreatment Report	1/year	March 31, 2015
S8	Acute Toxicity Effluent Tests (testing in 1st and 3rd quarters of 2017)	2 tests/permit cycle, 1 submittal/permit cycle	With permit application
S9	Chronic Toxicity Effluent Tests (testing in 2nd and 4th quarters of 2017)	2 tests/permit cycle, 1 submittal/permit cycle	With permit application
S10	Wet Weather Operation Reports	As necessary with monthly DMR submittal	
S11.C	CSO Monthly Report	Monthly with monthly DMR submittal	
S11.C	CSO Annual Report	Annually	July 31, 2015
S11.D	CSO Reduction Plan Amendment	1/permit cycle	With permit application
S11.F.d	CSO Post Construction Monitoring Data Report	1/permit cycle	December 1, 2019
S12	Spill Control Plan Update	As necessary	
S13.A	Sediment Sampling & Analysis Plan- West Pt Sediment Data Report - West Pt	1/permit cycle	December 1, 2016 December 1, 2018
S13.B	Sediment Sampling & Analysis Plan- CSO Outfalls Sediment Data Report - CSO Outfalls	1/permit cycle	December 1, 2016 December 1, 2018
S13.C	Sediment Quality at CSO Outfalls Summary Report	1/permit cycle	December 1, 2018
S14	Outfall Evaluation Reports – West Point and CSO TPs	1/permit cycle	With permit application
S15	Elliott West Copper Reduction Assessment	1/permit cycle	November 1, 2018
S16	Elliott West Settleable Solids Removal Assessment	1/permit cycle	November 1, 2018
S17	Application for Permit Renewal	1/permit cycle	January 31, 2019
G1	Notice of Change in Authorization	As necessary	
G4	Reporting Planned Changes	As necessary	
G5	Engineering Report for Construction or Modification Activities	As necessary	
G13	Payment of Fees	As assessed	

Special Conditions

S1. Discharge limits

All discharges and activities authorized by this permit must comply with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a level in excess of, that identified and authorized by this permit violates the terms and conditions of this permit.

S1.A. Effluent limits for Outfall 001 - West Point wastewater treatment plant

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee may discharge treated municipal wastewater at the permitted locations subject to compliance with the following limits:

Effluent Limits: Outfall #001 - West Point WWTP Latitude: 47.661111˚ Longitude: -122.446389˚		
Parameter	**Average Monthly [a]**	**Average Weekly [b]**
Carbonaceous Biochemical Oxygen Demand (5-day)	25 milligrams/liter (mg/L) 44,800 pounds/day (lbs/day) May–Oct: 85% removal of influent $CBOD_5$ Nov–April: 80% removal of influent $CBOD_5$	40 mg/L 71,700 lbs/day
Total Suspended Solids	30 mg/L, 53,800 lbs/day May–Oct: 85% removal of influent TSS Nov–April: 80% removal of influent TSS	45 mg/L 80,700 lbs/day
	Monthly Geometric Mean	**Weekly Geometric Mean**
Fecal Coliform Bacteria [c]	200/100 mL	400/100 mL
	Instantaneous Minimum	**Instantaneous Maximum**
pH [d]	6.0	9.0
	Average Monthly [a]	**Maximum Daily [e]**
Total Residual Chlorine	139 µg/L	364 µg/L

[a] Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

[b] Average weekly discharge limit means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

[c] Ecology provides directions to calculate this value in publication No. 04-10-020, *Information Manual for Treatment Plant Operators,* available at: http://www.ecy.wa.gov/pubs/0410020.pdf.

[d] Report the instantaneous maximum and minimum pH monthly. Do not average pH values.

[e] Maximum daily effluent limit means the highest allowable daily discharge. The daily discharge is the average measurement of the pollutant over the day.

S1.B. Effluent limits for the CSO treatment plants

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee may discharge treated combined sewer overflows at the following permitted locations subject to compliance with the following limits. Discharges from these outfalls are prohibited except as a result of precipitation events.

Effluent Limits: Outfall #051 - Alki CSO TP Latitude: 47.57025° Longitude: -122.4225°		
Parameter	**Average Monthly**	**Annual Average [a]**
Total Suspended Solids Removal Efficiency [b]	Report	Equal to or greater than 50% removal of influent TSS
	Monthly Geometric Mean	
Fecal Coliform Bacteria	400/100 mL [c]	
		Annual Average [a]
Settleable Solids		0.3 mL/L/hr
	Instantaneous Minimum	**Instantaneous Maximum**
pH [d]	6.0	9.0
	Maximum Daily [e]	
Total Residual Chlorine	234 µg/L	
	Long-Term Average [f]	
Number of Discharge Events	29 events/year	
Discharge Volume	108 million gallons/year	

[a] Calculate annual averages as the average of all 'event' averages. Do not omit one event per year from calculation. Data must be collected and reported on a calendar year basis via WQWebDMR and in the Annual CSO Report.

[b] Calculate the TSS total removal efficiency on a mass balance basis as the percent of solids captured at the CSO treatment facility and then permanently removed at the West Point WWTP. The reported daily average TSS % removal efficiency at the West Point WWTP, corresponding to the event, must be used for calculating the total removal efficiency for the CSO facility. Note: While % TSS removal is reported on a monthly basis, compliance is based on the annual average as reported via WQWebDMR and in the annual CSO report as required in S11.

[c] For the monthly geometric mean, calculate the geometric mean of all samples collected during the month; use a value of 1 for the geomean calc when fecal coliform results are 0. Do not include non-discharge days in the calculation. Ecology provides directions to calculate this value in publication No. 04-10-020, *Information Manual for Treatment Plant Operators,* available at: http://www.ecy.wa.gov/pubs/0410020.pdf.

[d] Report the instantaneous maximum and minimum pH monthly. Do not average pH values.

[e] Maximum daily effluent limit means the highest allowable daily discharge. The daily discharge is the average measurement of the pollutant measured over a calendar day while discharging.

[f] Long-term average will be assessed using data collected over the full permit cycle. Data must be collected and reported for the period of the permit cycle prior to permit renewal, as required in S4.E.

Effluent Limits: Outfall #046 - Carkeek CSO TP Latitude: 47.71264° Longitude: -122.38789°		
Parameter	**Average Monthly**	**Annual Average [a]**
Total Suspended Solids Removal Efficiency [b]	Report	Equal to or greater than 50% removal of influent TSS
	Monthly Geometric Mean	
Fecal Coliform Bacteria [c]	400/100 mL	
		Annual Average [a]
Settleable Solids		0.3 mL/L/hr
	Instantaneous Minimum	**Instantaneous Maximum**
pH [d]	6.0	9.0
	Maximum Daily [e]	
Total Residual Chlorine	490 µg/L	
	Long-Term Average [f]	
Number of Discharge Events	10 events/year	
Discharge Volume	46 million gallons/year	

[a] Calculate annual averages as the average of all 'event' averages. Do not omit one event per year from calculation. Data must be collected and reported on a calendar year basis via WQWebDMR and in the Annual CSO Report.

[b] Calculate the TSS total removal efficiency on a mass balance basis as the percent of solids captured at the CSO treatment facility and then permanently removed at the West Point WWTP. The reported daily average TSS % removal efficiency at the West Point WWTP, corresponding to the event, must be used for calculating the total removal efficiency for the CSO facility. Note: While % TSS removal is reported on a monthly basis, compliance is based on the annual average as reported via WQWebDMR and in the annual CSO report as required in S11.

[c] For the monthly geometric mean, calculate the geometric mean of all samples collected during the month; use a value of 1 for the geomean calc when fecal coliform results are 0. Do not include non-discharge days in the calculation. Ecology provides directions to calculate this value in publication No. 04-10-020, *Information Manual for Treatment Plant Operators,* available at: http://www.ecy.wa.gov/pubs/0410020.pdf.

[d] Report the instantaneous maximum and minimum pH monthly. Do not average pH values.

[e] Maximum daily effluent limit means the highest allowable daily discharge. The daily discharge is the average measurement of the pollutant measured over a calendar day while discharging.

[f] Long-term average will be assessed using data collected over the full permit cycle. Data must be collected and reported for the period of the permit cycle prior to permit renewal, as required in S4.E.

Effluent Limits: Outfall #027B - Elliott West CSO TP Latitude: 47.61755° Longitude: -122.361856°		
Parameter	**Average Monthly**	**Annual Average [a]**
Total Suspended Solids Removal Efficiency [b]	Report	Equal to or greater than 50% removal of influent TSS
	Monthly Geometric Mean	
Fecal Coliform Bacteria [c]	400/100 mL	
		Annual Average [a]
Settleable Solids		0.3 mL/L/hr
	Instantaneous Minimum	**Instantaneous Maximum**
pH [d]	6.0	9.0
	Maximum Daily [e]	
Total Residual Chlorine	109 µg/L	

[a] Calculate annual averages as the average of all 'event' averages. Do not omit one event per year from calculation. Data must be collected and reported on a calendar year basis via WQWebDMR and in the Annual CSO Report.

[b] Calculate the TSS total removal efficiency on a mass balance basis as the percent of solids captured at the CSO treatment facility and then permanently removed at the West Point WWTP. The reported daily average TSS % removal efficiency at the West Point WWTP, corresponding to the event, must be used for calculating the total removal efficiency for the CSO facility. Note: While % TSS removal is reported on a monthly basis, compliance is based on the annual average as reported via WQWebDMR and in the annual CSO report as required in S11.

[c] For the monthly geometric mean, calculate the geometric mean of all samples collected during the month; use a value of 1 for the geomean calc when fecal coliform results are 0. Do not include non-discharge days in the calculation. Ecology provides directions to calculate this value in publication No. 04-10-020, *Information Manual for Treatment Plant Operators,* available at: http://www.ecy.wa.gov/pubs/0410020.pdf.

[d] Report the instantaneous maximum and minimum pH monthly. Do not average pH values.

[e] Maximum daily effluent limit means the highest allowable daily discharge. The daily discharge is the average measurement of the pollutant measured over a calendar day while discharging.

Effluent Limits: Outfall #044 - Henderson/MLK CSO TP Latitude: 47.51194˚ Longitude: -122.29736˚		
Parameter	**Average Monthly**	**Annual Average [a]**
Total Suspended Solids Removal Efficiency [b]	Report	Equal to or greater than 50% removal of influent TSS
	Monthly Geometric Mean	
Fecal Coliform Bacteria [c]	400/100 mL	
		Annual Average [a]
Settleable Solids		0.3 mL/L/hr
	Instantaneous Minimum	**Instantaneous Maximum**
pH [d]	6.0	9.0
	Maximum Daily [e]	
Total Residual Chlorine	39 µg/L	

[a] Calculate annual averages as the average of all 'event' averages. Do not omit one event per year from calculation. Data must be collected and reported on a calendar year basis via WQWebDMR and in the Annual CSO Report.

[b] Calculate the TSS total removal efficiency on a mass balance basis as the percent of solids captured at the CSO treatment facility and then permanently removed at the West Point WWTP. The reported daily average TSS % removal efficiency at the West Point WWTP, corresponding to the event, must be used for calculating the total removal efficiency for the CSO facility. Note: While % TSS removal is reported on a monthly basis, compliance is based on the annual average as reported via WQWebDMR and in the annual CSO report as required in S11.

[c] For the monthly geometric mean, calculate the geometric mean of all samples collected during the month; use a value of 1 for the geomean calc when fecal coliform results are 0. Do not include non-discharge days in the calculation. Ecology provides directions to calculate this value in publication No. 04-10-020, *Information Manual for Treatment Plant Operators,* available at: http://www.ecy.wa.gov/pubs/0410020.pdf.

[d] Report the instantaneous maximum and minimum pH monthly. Do not average pH values.

[e] Maximum daily effluent limit means the highest allowable daily discharge. The daily discharge is the average measurement of the pollutant measured over a calendar day while discharging.

S1.C. Mixing zone authorizations

Table 1 summarizes the mixing boundaries and dilution factors for the West Point WWTP and CSO treatment plant outfalls.

Table 1. Dilution zone sizes and dilution factors for permitted outfalls

Outfall	Mixing Zone Radius (feet) [a]		Dilution Factors			
	Chronic	Acute	Aquatic Life Chronic	Aquatic Life Acute	Human Health: Carcinogen	Human Health: Non-Carcinogen
West Point WWTP	430	43	188	28	324	324
Alki CSO [b]	343	34	99	20		
Carkeek CSO [b]	395	39.5	104	75		
Elliott West CSO [b]	260	26	9.7	8.4		
Henderson/MLK CSO [b]	312 [c]	31.2 [c]	10.3	1.9		

[a] As measured from each port.

[b] Mixing zone dilution modeling is more accurate for continuous discharges. The resultant dilution factor that is achieved in the mixing zone of an intermittent discharge such as this is an approximation that is based on reasonable assumptions about the flow characteristics of the discharge and conditions of the receiving water.

[c] Since this is a river discharge, these dimensions represent distance downstream of outfall instead of radius.

S2. Monitoring requirements

S2.A. Monitoring schedules

The Permittee must monitor in accordance with the schedules in the following tables and the requirements specified in Appendix A or any corresponding *Sampling Analysis Plan/Quality Assurance Project Plan (SAP/QAPP)* documents. Alternative methods from 40 CFR Part 136 are acceptable only for those parameters without limits and if the DL and QL are equivalent to those specified in Appendix A, any corresponding SAP/QAPP documents, or sufficient to produce a measurable quantity.

Table 2. Monitoring Schedule – West Point WWTP (001)

Parameter	Units	Minimum Frequency	Sample Type
(1) Wastewater Influent [a]			
BOD_5	mg/L	1/week	24-hr Composite [b]
	lbs/day [c]	1/week	Calculation
$CBOD_5$	mg/L	1/day	24-hr Composite
	lbs/day [c]	1/day	Calculation
TSS	mg/L	1/day	24-hr Composite
	lbs/day	1/day	Calculation
(2) Final Wastewater Effluent [d]			
Flow	MGD	Continuous [e]	Meter
$CBOD_5$ [f]	mg/L	1/day	24-hr Composite
	lbs/day [c]	1/day	Calculation
	% removal [g]	1/month	Calculation
TSS	mg/L	1/day	24-hr Composite
	lbs/day [c]	1/day	Calculation
	% removal [g]	1/month	Calculation
Chlorine (after dechlorination)	µg/L	Continuous [e]	Meter
Fecal Coliform	# /100 ml	1/day	Grab [h]
pH	Standard Units	Continuous [e]	Meter
(3) Effluent Characterization – Final Wastewater Effluent			
Total Ammonia	mg/L N	1/month	24-hr Composite
	lbs/day	1/month	Calculation
Nitrate + Nitrite Nitrogen	mg/L N	1/month	24-hr Composite
Total Kjeldahl Nitrogen	mg/L N	1/month	24-hr Composite
Total Phosphorus	mg/L P	1/month	24-hr Composite
Soluble Reactive Phosphorus	mg/L P	1/month	24-hr Composite
(4) Whole Effluent Toxicity Testing – Final Wastewater Effluent - As specified in Permit Conditions S8 & S9.			
Acute Toxicity Testing		2/permit cycle	24-hr Composite
Chronic Toxicity Testing		2/permit cycle	24-hr Composite
(5) Pretreatment - As specified in Permit Condition S6.			
(6) CSO Monitoring - As specified in Permit Condition S11.			
(7) Permit Application Requirements – Final Wastewater Effluent [j]			
Dissolved Oxygen	mg/L	1/year in Aug	Grab
Oil and Grease (HEM)	mg/L	1/year in Aug	Grab
Total Dissolved Solids	mg/L	1/year in Aug	24-hr Composite
Total Hardness	mg/L	1/year in Aug	24-hr Composite
Alkalinity	mg/L as CaCO3	1/year in Aug	Grab

Table 2. Monitoring Schedule – West Point WWTP (001)

Parameter	Units	Minimum Frequency	Sample Type
Temperature	˚C	1/year in Aug	Grab
Cyanide	µg/L	2/year [i, j]	Grab
Total Phenolic Compounds	µg/L	2/year [i, j]	Grab
Priority Pollutants (PP) – Total Metals	µg/L (ng for mercury)	2/year [i, j]	24-hr Composite; Grab for mercury
PP – Volatile Organic Compounds	µg/L	2/year [i, j]	Grab
PP – Acid-extractable Compounds	µg/L	2/year [i, j]	24-hr Composite
PP – Base-neutral Compounds	µg/L	2/year [i, j]	24-hr Composite
(8) Sediment Study - As specified in Permit Condition S13.A.			

[a] Wastewater Influent means the raw sewage flow from the collection system into the treatment facility. Sample the wastewater entering the headworks of the plant excluding any side-stream returns from inside the plant.

[b] 24-hour composite means a series of individual samples collected over a 24-hour period in a single container and analyzed as one sample.

[c] lbs/day = Concentration (in mg/L) x Flow (in MGD) x Conversion Factor (8.34) = lbs/day. Calculate using the average flow measured during the sample collection period.

[d] Final Wastewater Effluent means wastewater which is exiting, or has exited, the last treatment process or operation.

[e] "Continuous" means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance. The Permittee must sample every six hours when continuous monitoring is not possible.

[f] Effluent samples for $CBOD_5$ analysis may be taken before or after the disinfection process. If taken after, dechlorinate and reseed the sample.

[g] $$\% \text{ removal} = \frac{\text{Influent monthly average concentration (mg/L)} - \text{Effluent monthly average concentration (mg/L)}}{\text{Influent monthly average concentration (mg/L)}} \times 100$$

[h] "Grab" means an individual sample collected over a 15-minute, or less, period.

[i] One of the two annual sampling events must occur when flows are being diverted around the secondary process (i.e. instantaneous effluent flow rate is greater than 300 MGD) or when the average daily precipitation is equal to or greater than 0.25 inches.

[j] The Permittee must record and report the wastewater treatment plant flow discharged on the day it collects the sample for Appendix A pollutant testing with the discharge monitoring report.

See Appendix A or corresponding SAP/QAPP for the required detection (DL) or quantitation (QL) levels.

Report single analytical values below detection as "less than (detection level)" where (detection level) is the numeric value specified in Appendix A.

Report single analytical values between the detection and quantitation levels with qualifier code of 'j' following the value. If unable to obtain the required DL and QL due to matrix effects, the Permittee must submit a matrix specific MDL and a QL with appropriate laboratory documentation.

Table 3. Monitoring Schedule for all CSO TPs: Alki-051, Carkeek-046, Elliott West-027, Henderson/MLK-044

Parameter	Units	Minimum Frequency	Sample Type
(1) Influent [a]			
Volume	MG	Per Event [b]	Meter/Calculation [c]
BOD_5	mg/L	Per Event	Flow Proportional Composite [d]
TSS	mg/L	Per Event	Flow Proportional Composite
(2) Final Effluent [e]			
Volume	MG	Per Event	Meter/Calculation
BOD_5	mg/L	Per Event	Flow Proportional Composite
TSS	mg/L	Per Event	Flow Proportional Composite
	% removal [f]	1/month	Calculation
Settleable Solids	mL/L/hr	Per Event	Flow Proportional Composite
Total Residual Chlorine	ug/L	Continuous during events [g]	Meter
Fecal Coliform	# /100 ml	Per Event	Grab [h, i]
pH	Std Units	Continuous during events	Meter
Copper, total recoverable [j]	µg/L	Elliott West and Henderson/MLK: Per Event All others: 1/year	Flow Proportional Composite
Cyanide	µg/L	Elliott West: 4/yr	Grab
Dissolved Oxygen	mg/L	Elliott West: Per Event starting in Nov 2016 All others: 1/year	Meter or Grab
Discharge Duration	Hours	Per Event	Meter/Calculation
Storm Duration [k]	Hours	Per Event	Meter/Calculation
Precipitation	Inches	Per Event	Meter/Calculation
(3) Effluent Characterization – Final Effluent			
Total Ammonia	mg/L N	Henderson/MLK: 1st 4 discharge events, then 1/year All others: 1/year	Flow Proportional Composite
Nitrate-Nitrite Nitrogen	mg/L N		Flow Proportional Composite
Total Kjeldahl Nitrogen	mg/L N		Flow Proportional Composite
Total Phosphorus	mg/L P		Flow Proportional Composite
Soluble Reactive Phosphorus	mg/L P		Flow Proportional Composite
Total Alkalinity	mg $CaCO_3$/L		Flow Proportional Composite or Grab
Temperature	°C		Grab
Priority Pollutants (PP)–Total Metals	µg/L		Flow Proportional Composite; Grab for mercury
PP – Volatile Organic Compounds	µg/L		Grab
PP – Acid-extractable Compounds	µg/L		Flow Proportional Composite
PP – Base-neutral Compounds	µg/L		Flow Proportional Composite
Cyanide	µg/L		Grab
Total Phenols	µg/L		Grab
PP – Total PCBs [l]	µg/L	Henderson/MLK only: 1/year	Flow Proportional Composite
(4) Permit Application Requirements – Final Effluent [m]			
Oil and Grease	mg/L	1/year	Grab
Total Dissolved Solids	mg/L	1/year	Flow Proportional Composite

Table 3. Monitoring Schedule for all CSO TPs: Alki-051, Carkeek-046, Elliott West-027, Henderson/MLK-044

Parameter	Units	Minimum Frequency	Sample Type
Total Hardness	mg/L	1/year	Flow Proportional Composite

[a] Influent means the combined raw sewage and stormwater flows from the collection system into the treatment facility. Sample the wastewater entering the treatment plant.

[b] "Per Event" means a unique flow event as defined in the *Permit Writer's Manual*, p. V-30. Ecology defines the minimum inter-event period as 24 hours. A CSO event is considered to have ended only after at least 24 hours has elapsed since the last measured occurrence of an overflow.

[c] "Meter/Calculation" means the total volume of the discharge or amount of precipitation event as estimated by direct measurement or indirectly by calculation (i.e. flow weirs, pressure transducers, tipping bucket). Precipitation must be measured by the nearest precipitation-measuring device as owned and operated by King County and actively monitored during the period of interest.

[d] "Flow proportional composite" means a series of individual samples collected over a flow period in a single container, and analyzed as one sample. The composite sample should represent the entire discharge event.

[e] "Final Effluent" means treated CSO effluent which is discharged to the receiving water, sampled after the dechlorination process. The Permittee may take effluent samples for the BOD_5 analysis before or after the disinfection process. If taken after, dechlorinate and reseed the sample.

[f] The total removal efficiency for TSS is to be calculated on a mass balance basis as the percent of solids captured at the CSO Treatment Plant and then permanently removed at the West Point Treatment Plant based on the estimated removal efficiency at West Point.

[g] "Continuous" means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance. The Permittee must sample every hour when continuous monitoring is not possible.

[h] "Grab" means an individual sample collected over a 15-minute, or less, period.

[i] Fecal grab samples must be taken at specific time intervals after the discharge begins to the receiving water as follows:

1. 1 sample within first 3 hours.
2. 1 sample between 3-8 hours.
3. 1 sample between 20-24 hours.
4. If discharge extends beyond 24 hours, at a minimum take 1 sample each day until the discharge ends.

If more than 1 sample is collected within the time intervals listed above, report the average of the fecal values for that time interval. Report one fecal value for each interval (as appropriate for the discharge duration) and calculate the monthly geomean using all of the reported fecal values for the month.
Chlorine and pH analyzer readings must be logged when fecal coliform samples are taken. Each individual fecal coliform sample should be dechlorinated.

[j] Copper sampling must be performed with laboratory-verified sampling procedures.

[k] Storm duration is the total amount of time precipitation occurred that contributed to a discharge event; it is determined on a case-by-case basis.

[l] PCB monitoring only required for the Henderson/MLK CSO treatment plant. Total PCBs must be analyzed using method 1668 with a detection limit of 0.0001 µg/L or lower.

[m] The Permittee must record and report the wastewater treatment plant flow discharged on the day it collects the sample for Appendix A pollutant testing with the discharge monitoring report.

See Appendix A or corresponding SAP/QAPP for the required detection (DL) or quantitation (QL) levels.

Report single analytical values below detection as "less than [detection level]" where [detection level] is the numeric value specified in Appendix A.

Report single analytical values between the detection and quantitation levels with qualifier code of 'j' following the value.

Untreated CSO Outfalls

The Permittee must monitor all discharges from the CSO outfalls listed in Special Condition S11, not including any CSO treatment plants, using the following monitoring schedule. The Permittee must use automatic flow monitoring equipment to collect the information required below, and must calibrate flow monitoring equipment according to requirements in Condition S2.C. A CSO discharge is defined as any untreated CSO which will exit or has exited the CSO outfall.

Table 4. Monitoring Schedule – Untreated CSO Outfalls

Parameter	Units	Minimum Sampling Frequency	Sample Type
Volume Discharged	MG	Per Event [a]	Meter/Calculation [b]
Discharge Duration	Hours	Per Event	Meter/Calculation
Storm Duration [c]	Hours	Per Event	Meter/Calculation
Precipitation	Inches	Per Event	Meter/Calculation
Sediments – As specified in Permit Condition S13.C.			

[a] "Per Event" means a unique flow event as defined in the *Permit Writer's Manual*, p. V-30. Ecology defines the minimum inter-event period as 24 hours. A CSO event is considered to have ended only after at least 24 hours has elapsed since the last measured occurrence of an overflow.

[b] "Meter/Calculation" means the total volume of the discharge or amount of precipitation event as estimated by direct measurement or indirectly by calculation (i.e. flow weirs, pressure transducers, tipping bucket). Precipitation must be measured by the nearest possible precipitation-measuring device and actively monitored during the period of interest.

[c] Storm duration is the total amount of time precipitation occurred that contributed to a discharge event; it is determined on a case-by-case basis.

S2.B. Sampling and analytical procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters. The Permittee must conduct representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions that may affect effluent quality.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 (or as applicable in 40 CFR subchapters N [Parts 400–471] or O [Parts 501-503]) unless otherwise specified in this permit. Ecology may only specify alternative methods for parameters without permit limits and for those parameters without an EPA approved test method in 40 CFR Part 136.

S2.C. Flow measurement, field measurement, and continuous monitoring devices

The Permittee must:

1. Select and use appropriate flow measurement, field measurement, and continuous monitoring devices and methods consistent with accepted scientific practices.

2. Install and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard and the manufacturer's recommendation for that type of device.
3. Calibrate continuous monitoring instruments consistent with the manufacturer's recommendation.
4. Maintain calibration records for at least three years.

S2.D. Laboratory accreditation

The Permittee must ensure that all monitoring data required by Ecology for permit specified parameters is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. Flow, temperature, settleable solids, and internal process control parameters are exempt from this requirement. .

S3. Reporting and recording requirements

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

S3.A. Reporting

The first monitoring period begins on the effective date of the permit. The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic Discharge Monitoring Report (DMR) form provided by Ecology within the Water Quality Permitting Portal. Include data for each of the parameters tabulated in Special Condition S2 and as required by the form. Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.

   To find out more information and to sign up for the Water Quality Permitting Portal go to: http://www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html.
2. Enter the "no discharge" reporting code for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.
3. Report single analytical values below detection as "less than the detection level (DL)" by entering < followed by the numeric value of the detection level (e.g. < 2.0) on the DMR. If the method used did not meet the minimum DL and quantitation level (QL) identified in the permit, report the actual QL and DL in the comments or in the location provided.
4. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit and as allowed in Appendix A.

5. Calculate average values and calculated total values (unless otherwise specified in the permit) using:
    a. The reported numeric value for all parameters measured between the agency-required detection value and the agency-required quantitation value.
    b. One-half the detection value (for values reported below detection) if the lab detected the parameter in another sample for the reporting period.
    c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for the reporting period.
6. Report priority pollutant data on the WQWebDMR form and include sample date, concentration detected, detection limit (DL) (as necessary), laboratory quantitation level (QL) (as necessary), and CAS number. The Permittee must also submit an electronic PDF copy of the laboratory report as an attachment using WQWebDMR. The laboratory report must provide the following information: date sampled, sample location, date of analysis, parameter name, CAS number, analytical method/number, detection limit (DL), laboratory quantitation level (QL), reporting units, and concentration detected. The laboratory report must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter.
7. Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must:
    a. Submit **monthly** DMRs by the 15th day of the following month.
    b. Submit **annual** DMRs by July 31th for the previous calendar year. The annual sampling period is the calendar year.

S3.B. Permit submittals and schedules

The Permittee must use the *Water Quality Permitting Portal – Permit Submittals* application to submit all other written permit-required reports by the date specified in the permit.

When another permit condition requires submittal of a report/file that cannot be accepted by the Water Quality Permitting Portal (i.e. video file for outfall inspection), the Permittee must ensure that the report/file is postmarked or received by Ecology no later than the dates specified by this permit. Send these reports/files to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

S3.C. Records retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

S3.D. Recording of results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.
5. The analytical techniques or methods used and the relevant detection limits.
6. The results of all analyses.

S3.E. Additional monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Special Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR or annual CSO report, as appropriate. If the Permittee monitors sediment or untreated CSO discharges more frequently than required by this permit, then the Permittee must enter the results of such monitoring into Ecology's EIM database or include the results in the annual CSO report, as appropriate.

S3.F. Reporting permit violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the non-compliance and correct the problem.
2. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.

a. Immediate reporting

The Permittee must *immediately* report to Ecology and the Department of Health, Shellfish Program, and King County Public Health (at the numbers listed below), all:

- Failures of the disinfection systems.
- Collection system overflows other than permitted CSO discharges.

- Plant bypasses discharging to marine surface waters, other than as described in Section S10.
- Any other failures of the sewage system (pipe breaks, etc.)

Additionally, for any sanitary sewer overflow (SSO) that discharges to a municipal separate storm sewer system (MS4), the Permittee must notify the appropriate MS4 owner or operator.

Northwest Regional Office	425-649-7000
Department of Health, Shellfish Program	360-236-3330 (business hours) 360-789-8962 (after business hours)
Public Health of Seattle-King County	206-296-4932

b. Twenty-four-hour reporting

The Permittee must report the following occurrences of non-compliance by telephone, to Ecology at the telephone numbers listed above, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

1. Any non-compliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
2. Any unanticipated bypass that causes an exceedance of an effluent limit in the permit (See Section S5.F, "Bypass Procedures").
3. Any upset that causes an exceedance of an effluent limit in the permit (See G15, "Upset").
4. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Section S1 of this permit for the West Point outfall 001.
5. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit.

c. Report within five days

The Permittee must also submit a written report within five business days of the time that the Permittee becomes aware of any reportable event under subparts a or b, above. The report must contain:

1. A description of the non-compliance and its cause.
2. The period of non-compliance, including exact dates and times.
3. The estimated time the Permittee expects the non-compliance to continue if not yet corrected.
4. Steps taken or planned to reduce, eliminate, and prevent recurrence of the non-compliance.

5. If the non-compliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

d. Waiver of written reports

Ecology may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

e. All other permit violation reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

f. Report submittal

The Permittee must submit reports to the address listed in S3.B.

S3.G. Other reporting

a. Spills of oil or hazardous materials

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and chapter 173-303-145. You can obtain further instructions at the following website: http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm .

b. Failure to submit relevant or correct facts

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

S3.H. Maintaining a copy of this permit

The Permittee must keep a copy of this permit at all treatment facilities and make it available upon request to Ecology inspectors.

S4. Facility loading (West Point WWTP)

S4.A. Design criteria

The flows or waste loads for the permitted West Point WWTP must not exceed the following design criteria:

Maximum Month Design Flow (MMDF)	215 MGD
BOD_5 Influent Loading for Maximum Month	201,000 lbs/day
TSS Influent Loading for Maximum Month	218,000 lbs/day

S4.B. Plans for maintaining adequate capacity

a. Conditions triggering plan submittal

The Permittee must submit a plan and a schedule for continuing to maintain capacity to Ecology when:

1. The actual flow or waste load reaches 85 percent of any one of the design criteria in S4.A for three consecutive months, or
2. The projected plant flow or loading would reach design capacity within five years.

b. Plan and schedule content

The plan and schedule must identify the actions necessary to maintain adequate capacity for the expected population growth and to meet the limits and requirements of the permit. The Permittee must consider the following topics and actions in its plan.

1. Analysis of the present design and proposed process modifications.
2. Reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system.
3. Limits on future sewer extensions or connections or additional waste loads.
4. Modification or expansion of facilities.
5. Reduction of industrial or commercial flows or waste loads.

Engineering documents associated with the plan must meet the requirements of WAC 173-240-060, "Engineering Report," and be approved by Ecology prior to any construction.

S4.C. Duty to mitigate

The Permittee must take all reasonable steps to minimize or prevent any discharge, use, or disposal of sludge or biosolids in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

S4.D. Notification of new or altered sources

1. The Permittee must submit written notice to Ecology whenever any new discharge or a substantial change in volume or character of an existing discharge into the wastewater treatment plant is proposed which:
   a. Would interfere with the operation of, or exceed the design capacity of, any portion of the wastewater treatment plant.
   b. Is not part of an approved general sewer plan or approved plans and specifications.
   c. Is subject to pretreatment standards under 40 CFR Part 403 and Section 307(b) of the Clean Water Act.

2. This notice must include an evaluation of the wastewater treatment plant's ability to adequately transport and treat the added flow and/or waste load, the quality and volume of effluent to be discharged to the treatment plant, and the anticipated impact on the Permittee's effluent [40 CFR 122.42(b)].

S4.E. Wasteload assessment

The Permittee must conduct wasteload assessments of the West Point WWTP and each CSO treatment plant and submit a report to Ecology with the next permit application. The Permittee must also submit the report electronically. The report must contain:

1. A description of compliance or non-compliance with the permit effluent limits.
2. A comparison between the existing and design:
    a. Monthly average dry weather and wet weather flows.
    b. Peak flows.
    c. $CBOD_5$ and TSS loadings (West Point only).
    d. 5-year average of annual discharge events and annual discharge volume for the Alki and Carkeek CSO treatment plants.
3. The percent change in the above parameters since the previous report.
4. The present and design population or population equivalent.
5. The projected population growth rate.
6. The estimated date upon which the Permittee expects the wastewater treatment plant to reach design capacity, according to the most restrictive of the parameters above.

S5. Operation and maintenance

The Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes keeping a daily operation logbook (paper or electronic), adequate laboratory controls, and appropriate quality assurance procedures. This provision of the permit requires the Permittee to operate backup or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of this permit.

S5.A. Certified operator

These permitted facilities must be operated by an operator certified by the state of Washington for at least a Class IV plant. This operator must be in responsible charge of the day-to-day operation of the wastewater treatment facilities. An operator certified for at least a Class III plant must be in charge during all regularly scheduled shifts.

S5.B. Operation and maintenance program

The Permittee must:

1. Maintain the operation and maintenance program for the entire sewage system under the ownership and control of KC.
2. Keep maintenance records on all major electrical and mechanical components of the treatment plant, as well as the sewage system and pumping stations. Such records must clearly specify the frequency and type of maintenance recommended by the manufacturer and must show the frequency and type of maintenance performed.
3. Make maintenance records available for inspection at all times.

S5.C. Short-term reduction

The Permittee must schedule any facility maintenance, which might require interruption of wastewater treatment and degrade effluent quality, during non-critical water quality periods and carry this maintenance out in a manner approved by Ecology.

If a Permittee contemplates a reduction in the level of treatment that would cause a violation of permit discharge limits on a short-term basis for any reason, and such reduction cannot be avoided, the Permittee must:

1. Give written notification to Ecology, if possible, thirty (30) days prior to such activities.
2. Detail the reasons for, length of time of, and the potential effects of the reduced level of treatment.

This notification does not relieve the Permittee of its obligations under this permit.

S5.D. Electrical power failure

The Permittee must ensure that adequate safeguards prevent the discharge of untreated wastes or wastes not treated in accordance with the requirements of this permit during electrical power failure at the treatment plant and/or sewage lift stations. Adequate safeguards include, but are not limited to, alternate power sources, standby generator(s), or retention of inadequately treated wastes.

The Permittee must maintain Reliability Class II (EPA 430-99-74-001) at the wastewater treatment plant. Reliability Class II requires a backup power source sufficient to operate all vital components and critical lighting and ventilation during peak wastewater flow conditions. Vital components used to support the secondary processes (i.e., mechanical aerators or aeration basin air compressors) need not be operable to full levels of treatment, but must be sufficient to maintain the biota.

S5.E. Prevent connection of inflow

The Permittee must strictly enforce its sewer ordinances and not allow the connection of inflow (roof drains, foundation drains, etc.) to the sanitary sewer system where under ownership and control of King County.

S5.F. Bypass procedures

This permit prohibits a bypass, which is the intentional diversion of waste streams from any portion of a treatment facility. Ecology may take enforcement action against a Permittee for a bypass unless one of the following circumstances (1, 2, or 3) applies.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

   This permit authorizes a bypass if it allows for essential maintenance and does not have the potential to cause violations of limits or other conditions of this permit, or adversely impact public health as determined by Ecology prior to the bypass. The Permittee must submit prior notice, if possible, at least ten (10) days before the date of the bypass.

2. Bypass which is unavoidable, unanticipated, and results in non-compliance of this permit.

   This permit authorizes such a bypass only if:

   a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

   b. No feasible alternatives to the bypass exist, such as:

      - The use of auxiliary treatment facilities.
      - Retention of untreated wastes.
      - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass.
      - Transport of untreated wastes to another treatment facility or preventative maintenance.

   c. Ecology is properly notified of the bypass as required in Special Condition S3.E of this permit.

3. If bypass is anticipated and has the potential to result in non-compliance of this permit.

   a. The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:

      - A description of the bypass and its cause.
      - An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
      - A cost-effectiveness analysis of alternatives including comparative resource damage assessment.

- The minimum and maximum duration of bypass under each alternative.
- A recommendation as to the preferred alternative for conducting the bypass.
- The projected date of bypass initiation.
- A statement of compliance with SEPA.
- A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
- Details of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during preparation of the engineering report or facilities plan and plans and specifications and must include these to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.

c. Ecology will consider the following prior to issuing an administrative order for this type of bypass:

- If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
- If feasible alternatives to bypass exist, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
- If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve or deny the request. Ecology will give the public an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Ecology will approve a request to bypass by issuing an administrative order under RCW 90.48.120.

S5.G. Operations and maintenance (O&M) manual

a. O&M manual submittal and requirements

The Permittee must:

1. Review the O&M manuals at least annually.

2. Submit to Ecology for review and approval substantial changes or updates to the O&M manuals whenever it incorporates them into the manual. The Permittee must submit an electronic copy (preferably as a PDF).
3. Keep the approved O&M manuals at the permitted facility.
4. Follow the instructions and procedures of these manuals.

b. O&M manual components

In addition to the requirements of WAC 173-240-080 (1) through (5), the O&M manuals must include:

- Emergency procedures for cleanup in the event of wastewater system upset or failure.
- A review of system components which if failed could pollute surface water or could impact human health. Provide a procedure for a routine schedule of checking the function of these components.
- Wastewater system maintenance procedures that contribute to the generation of process wastewater.
- Reporting protocols for submitting reports to Ecology to comply with the reporting requirements in the discharge permit.
- Any directions to maintenance staff when cleaning or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine).
- Treatment plant process control monitoring schedules.

S6. Pretreatment

S6.A. General requirements

1. The Permittee must implement the Industrial Pretreatment Program in accordance with King County Code 28.84.060 as amended by King County Ordinance No. 11963 on January 1, 1996, legal authorities, policies, procedures, and financial provisions described in the Permittee's approved pretreatment program submittal entitled "Industrial Pretreatment Program" and dated April 27, 1981; any approved revisions thereto; and the General Pretreatment Regulations (40 CFR Part 403). At a minimum, the Permittee must undertake the following pretreatment implementation activities:

   a. Enforce categorical pretreatment standards under Section 307(b) and (c) of the Federal Clean Water Act (hereinafter, the Act), prohibited discharge standards as set forth in 40 CFR 403.5, local limits, or state standards, which ever are most stringent or apply at the time of issuance or modification of a local industrial waste discharge permit. Locally derived limits are defined as pretreatment standards under Section 307(d) of the Act and are not limited to categorical industrial facilities.

b. Issue industrial waste discharge permits to all significant industrial users [SIUs, as defined in 40 CFR 403.3(v)(i)(ii)] contributing to the treatment system, including those from other jurisdictions. Industrial waste discharge permits must contain as a minimum, all the requirements of 40 CFR 403.8 (f)(l)(iii). The Permittee must coordinate the permitting process with Ecology regarding any industrial facility which may possess a state waste discharge permit issued by Ecology.

c. Maintain and update, as necessary, records identifying the nature, character, and volume of pollutants contributed by industrial users to the treatment works. The Permittee must maintain records for at least a three-year period.

d. Perform inspections, surveillance, and monitoring activities on industrial users to determine or confirm compliance with pretreatment standards and requirements. The Permittee must conduct a thorough inspection of SIUs annually, except Middle-Tier Categorical Industrial Users, as defined by 40 CFR 403.8(f)(2)(v)(B)&(C), need only be inspected once every two years, unless they discharge to a CSO outfall (controlled and uncontrolled) located within the Lower Duwamish Waterway cleanup site boundary, in which case they must be inspected annually. The Permittee must conduct regular local monitoring of SIU wastewaters commensurate with the character and volume of the wastewater but not less than once per year except for Middle-Tier Categorical Industrial Users which may be sampled once every two years. The Permittee must collect and analyze samples in accordance with 40 CFR Part 403.12(b)(5)(ii)-(v) and 40 CFR Part 136.

e. Enforce and obtain remedies for non-compliance by any industrial users with applicable pretreatment standards and requirements. Once violations have been identified, the Permittee must take timely and appropriate enforcement action to address the non-compliance. The Permittee's action must follow its enforcement response procedures and any amendments, thereof.

f. Publish, at least annually in a newspaper of general circulation within the Permittee's service area, a list of all non-domestic users which, at any time in the previous 12 months, were in significant non-compliance as defined in 40 CFR 403.8(f)(2)(vii).

g. If the Permittee elects to conduct sampling of an SIU's discharge in lieu of requiring user self-monitoring, it must satisfy all requirements of 40 CFR Part 403.12. This includes monitoring and record keeping requirements of sections 403.12(g) and (o). For SIU's subject to categorical standards (i.e., CIUs), the Permittee may either complete baseline and initial compliance reports for the CIU (when required by 403.12(b) and (d)) or require these of the CIU. The Permittee must ensure SIUs are provided the results of sampling in a timely manner, inform SIUs of their right to sample, their obligations to report any sampling they do, to respond to non-compliance, and to submit other notifications.

These include a slug load report (403.12(f)), notice of changed discharge (403.12(j)), and hazardous waste notifications (403.12(p)). If sampling for the SIU, the Permittee must not sample less than once in every six month period unless the Permittee's approved program includes procedures for reduction of monitoring for Middle-Tier or Non-Significant Categorical Users per 403.12(e)(2) and (3) and those procedures have been followed.

h. Develop and maintain a data management system designed to track the status of the Permittee's industrial user inventory, industrial user discharge characteristics, and compliance status.

i. Maintain adequate staff, funds, and equipment to implement its pretreatment program.

j. Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by commercial or industrial users within these jurisdictions. These contracts or agreements must identify the agency responsible for the various implementation and enforcement activities to be performed in the contributing jurisdiction.

2. Per 40 CFR 403.8(f)(2)(vii), the Permittee must evaluate each Significant Industrial User to determine if a Slug Control Plan is needed to prevent slug discharges which may cause interference, pass-through, or in any other way result in violations of the Permittee's regulations, local limits or permit conditions. The Slug Control Plan evaluation shall occur within one year of a user's designation as a SIU. In accordance with 40 CFR 403.8(f)(1)(iii)(B)(6) the Permittee shall include slug discharge control requirements in an SIU's permit if the Permittee determines that they are necessary.

3. Whenever Ecology determines that any waste source contributes pollutants to the Permittee's treatment works in violation of Subsection (b), (c), or (d) of Section 307 of the Act, and the Permittee has not taken adequate corrective action, Ecology will notify the Permittee of this determination. If the Permittee fails to take appropriate enforcement action within 30 days of this notification, Ecology may take appropriate enforcement action against the source or the Permittee.

4. Pretreatment Report

The Permittee must provide to Ecology an annual report that briefly describes its program activities during the previous calendar year. By March 31st, the Permittee must send the annual report to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

The report must include the following information:

a. An updated listing of non-domestic industrial dischargers. Starting with the report submitted in 2016, the list must identify, for each discharger with a King County discharge authorization (minor or major) or discharge permit, the downstream CSO outfall(s) to which the discharger contributes, where applicable.

b. Results of wastewater sampling at the treatment plant as specified in Subsection S6.B below. The Permittee must calculate removal rates for each pollutant and evaluate the adequacy of the existing local limits in prevention of treatment plant interference, pass through of pollutants that could affect receiving water quality and biosolids contamination.

c. Status of program implementation, including:

    i. Any substantial modifications to the pretreatment program as originally approved by Ecology, including staffing and funding levels.

    ii. Any interferences, upsets, or permit violations experienced at the WWTP that are directly attributable to wastes from industrial users.

    iii. Listing of industrial users inspected and/or monitored, and a summary of the results.

    iv. Listing of industrial users scheduled for inspection and/or monitoring for the next year, and expected frequencies.

    v. Listing of industrial users notified of promulgated pretreatment standards and/or local standards as required in 40 CFR 403.8(f)(2)(iii). The list must indicate which industrial users are on compliance schedules and the final date of compliance for each.

    vi. Listing of industrial users issued industrial waste discharge permits.

    vii. Planned changes in the pretreatment program implementation plan.

d. Status of compliance activities, including:

    i. Listing of industrial users that failed to submit baseline monitoring reports or any other reports required under 40 CFR 403.12 and in the Permittee's pretreatment program, dated April 27, 1981.

    ii. Listing of industrial users that were at any time during the reporting period not complying with federal, state, or local pretreatment standards or with applicable compliance schedules for achieving those standards, and the duration of such non-compliance.

    iii. Summary of enforcement activities and other corrective actions taken or planned against non-complying industrial users. The Permittee must supply to Ecology a copy of the public notice of facilities that were in significant non-compliance.

5. The Permittee must request and obtain approval from Ecology before making any significant changes to the approved local pretreatment program. The Permittee must follow the procedure in 40 CFR 403.18 (b) and (c).

S6.B. Monitoring requirements

The Permittee must monitor its influent, effluent, and biosolids at the West Point WWTP for the priority pollutants identified in Tables II and III of Appendix D of 40 CFR Part 122 as amended, any compounds identified as a result of Condition S6.B.4, and any other pollutants expected from nondomestic sources using U.S. EPA-approved procedures for collection, preservation, storage, and analysis. The Permittee must test influent, effluent, and biosolids samples for the priority pollutant metals (Table III, 40 CFR 122, Appendix D) on a quarterly basis throughout the term of this permit. The Permittee must test influent, effluent, and biosolids samples for the organic priority pollutants (Table II, 40 CFR 122, Appendix D) on an annual basis.

1. The Permittee must sample West Point WWTP influent and effluent on a day when industrial discharges are occurring at normal to maximum levels. The Permittee must obtain 24-hour composite samples for the analysis of acid and base/neutral extractable compounds and metals. The Permittee must collect samples for the analysis of volatile organic compounds and samples must be collected using grab sampling techniques at equal intervals for a total of four grab samples per day.

   The laboratory may run a single analysis for volatile pollutants (using GC/MS procedures approved by 40 CFR 136) for each monitoring day by compositing equal volumes of each grab sample directly in the GC purge and trap apparatus in the laboratory, with no less than 1 ml of each grab included in the composite.

   Unless otherwise indicated, all reported test data for metals must represent the total amount of the constituent present in all phases, whether solid, suspended, or dissolved, elemental or combined including all oxidation states.

   The Permittee must handle, prepare, and analyze all wastewater samples taken for GC/MS analysis using procedures approved by 40 CFR 136.

2. The Permittee must collect a biosolids sample concurrently with a wastewater sample as a single grab sample of residual biosolids. Sampling and analysis must be performed using procedures approved by 40 CFR 136 unless the Permittee requests an alternate method and Ecology has approved.

3. The Permittee must take cyanide, phenols, and oils as grab samples. Oils must be hexane soluble or equivalent, and should be measured in the influent and effluent only.

4. In addition to quantifying pH, oil and grease, and all priority pollutants, the Permittee must make a reasonable attempt to identify all other substances and quantify all pollutants shown to be present by gas chromatograph/mass spectrometer (GC/MS) analysis using procedures approved by 40 CFR 136. The Permittee should attempt to make determinations of pollutants for each

fraction, which produces identifiable spectra on total ion plots (reconstructed gas chromatograms). The Permittee should attempt to make determinations from all peaks with responses 5% or greater than the nearest internal standard. The 5% value is based on internal standard concentrations of 30 μg/l, and must be adjusted downward if higher internal standard concentrations are used or adjusted upward if lower internal standard concentrations are used. The Permittee may express results for non-substituted aliphatic compounds as total hydrocarbon content. The Permittee must use a laboratory whose computer data processing programs are capable of comparing sample mass spectra to a computerized library of mass spectra, with visual confirmation by an experienced analyst. For all detected substances which are determined to be pollutants, the Permittee must conduct additional sampling and appropriate testing to determine concentration and variability, and to evaluate trends.

S6.C. Reporting of monitoring results

The Permittee must include a summary of monitoring results in the Annual Pretreatment Report.

S6.D. Local limit development

As sufficient data become available, the Permittee must, in consultation with Ecology, reevaluate their local limits in order to prevent pass through or interference. On a case-by-case basis, as applicable, the Permittee should consider the impacts of CSO discharges on the receiving waterbody when establishing limits for individual permittees. If Ecology determines that any pollutant present causes pass through or interference, or exceeds established biosolids standards, the Permittee must establish new local limits or revise existing local limits as required by 40 CFR 403.5. Ecology may also require the Permittee to revise or establish local limits for any pollutant discharged from the treatment works that has a reasonable potential to exceed the water quality standards, sediment standards, or established effluent limits, or causes whole effluent toxicity. Ecology makes this determination in the form of an Administrative Order.

Ecology may modify this permit to incorporate additional requirements relating to the establishment and enforcement of local limits for pollutants of concern. Any permit modification is subject to formal due process procedures under state and federal law and regulation.

S7. Solid wastes

S7.A. Solid waste handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

S7.B. Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality

Standards, Chapter 173-200 WAC. The Permittee must apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

S8. Acute toxicity

S8.A. Acute testing

The Permittee must:

1. Conduct acute toxicity testing on final West Point WWTP effluent during the first and third quarters of 2017.
2. Submit the results to Ecology with the permit renewal application.
3. Conduct acute toxicity testing on a series of at least five concentrations of effluent, including 100% effluent and a control.
4. Use each of the following species and protocols for each acute toxicity test:

Acute Toxicity Tests	Species	Method
Fathead minnow 96-hour static-renewal test	*Pimephales promelas*	EPA-821-R-02-012
Daphnid 48-hour static test	*Ceriodaphnia dubia, Daphnia pulex,* or *Daphnia magna*	EPA-821-R-02-012

S8.B. Sampling and reporting requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data in electronic format for entry into Ecology's database, then the Permittee must send the data to Ecology along with the test report, bench sheets, and reference toxicant results.
2. The Permittee must collect 24-hour composite effluent samples for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Subsection C and the Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.

5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Section A or pristine natural water of sufficient quality for good control performance.
6. The Permittee must collect effluent samples for whole effluent toxicity testing just prior to the chlorination step in the treatment process.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the acute critical effluent concentration (ACEC). The ACEC equals 3.6 % effluent.
8. All whole effluent toxicity tests that involve hypothesis testing must comply with the acute statistical power standard of 29% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S9. Chronic toxicity

S9.A. Chronic testing

The Permittee must:

1. Conduct chronic toxicity testing on final West Point WWTP effluent during the second and fourth quarters of 2017.
2. Submit the results to Ecology with the permit renewal application.
3. Conduct chronic toxicity testing on a series of at least five concentrations of effluent and a control. This series of dilutions must include the acute critical effluent concentration (ACEC). The ACEC equals 3.6% effluent. The series of dilutions should also contain the CCEC of 0.53 % effluent.
4. Compare the ACEC to the control using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001.
5. Perform chronic toxicity tests with all of the following species and the most recent version of the following protocols:

Saltwater Chronic Test	Species	Method
Topsmelt survival and growth	*Atherinops affinis*	EPA/600/R-95/136
Mysid shrimp survival and growth	*Americamysis bahia* (formerly *Mysidopsis bahia*)	EPA-821-R-02-014

S9.B. Sampling and reporting requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain bench sheets and reference toxicant results for test methods. If the lab

provides the toxicity test data in electronic format for entry into Ecology's database, then the Permittee must send the data to Ecology along with the test report, bench sheets, and reference toxicant results.

2. The Permittee must collect 24-hour composite effluent samples for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Section C and the Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Subsection C or pristine natural water of sufficient quality for good control performance.
6. The Permittee must collect effluent samples for whole effluent toxicity testing just prior to the chlorination step in the treatment process.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the CCEC and the ACEC. The CCEC and the ACEC may either substitute for the effluent concentrations that are closest to them in the dilution series or be extra effluent concentrations. The CCEC equals 0.53% effluent. The ACEC equals 3.6% effluent.
8. All whole effluent toxicity tests that involve hypothesis testing must comply with the chronic statistical power standard of 39% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S10. Wet weather operation

CSO-related bypass of the secondary treatment portion of the West Point WWTP is authorized when the instantaneous flow rate to the WWTP exceeds 300 MGD as a result of precipitation events. Bypasses that occur when the instantaneous flow rate is less than 300 MGD are not authorized under this condition and are subject to the bypass provisions as stated in S5.F of the permit. In the event of a CSO-related bypass authorized under this condition, the Permittee must minimize the discharge of

pollutants to the environment. At a minimum, CSO-related bypass flows must receive solids and floatables removal, primary clarification, and disinfection. The final discharge must at all times meet the effluent limits of this permit as listed in S1.

The Permittee must maintain records of all CSO-related bypasses at the treatment plant. These records must document the date, duration, and volume of each bypass event, and the magnitude of the precipitation event. The records must also indicate the effluent flow rate at the time when bypassing is initiated. The Permittee must report all occurrences of bypassing on a monthly and annual basis. The monthly report must include the above information and must be included in narrative form with the discharge monitoring report. The annual report must include all of the above information in summary format and should be reported in the annual CSO report per S11.C.

S11. Combined sewer overflows

S11.A. Authorized CSO discharge locations

Beginning on the effective date of this permit, the Permittee may discharge combined wastewater and stormwater from the 38 combined sewer overflow (CSO) outfalls listed in

Table 5. These point source discharges occur intermittently when rain events overload the combined sewer system. The permit prohibits discharges from the CSO outfall sites except as a result of precipitation. This permit does not authorize discharges from CSO outfalls that threaten characteristic uses of the receiving water as identified in the water quality standards, Chapter 173-201A WAC, or that result in an exceedance of the Sediment Management Standards, Chapter 173-204 WAC.

Table 5. Permitted CSO outfalls (38)

Outfall No.	Facility Name	Receiving Water	Latitude	Longitude
003	Ballard Siphon Reg.via Seattle storm drain	Lake Washington Ship Canal	47.663916˚	-122.382333˚
004	11th Ave NW (AKA East Ballard)	Lake Washington Ship Canal	47.659491˚	-122.370774˚
006	Magnolia Overflow	Elliott Bay/Puget Sound	47.630184˚	-122.399021˚
007	Canal Street Overflow	Lake Washington Ship Canal	47.651856˚	-122.358113˚
008	3rd Ave W and Ewing St.	Lake Washington Ship Canal	47.652084˚	-122.360052˚
009	Dexter Ave Regulator	Lake Union	47.632273˚	-122.339235˚
011	E Pine St. PS Emergency Overflow	Lake Washington	47.614926˚	-122.280304˚
012	Belvoir Pump Station Emergency Overflow	Lake Washington	47.656698˚	-122.287589˚
013	MLK Trunkline Overflow - via storm drain	Lake Washington	47.523285˚	-122.262950˚
014	Montlake Overflow	Lake Washington Ship Canal	47.647110˚	-122.304861˚
015	University Regulator	Lake Washington Ship Canal	47.648929˚	-122.311296˚
018	Matthews Park PS Emergency Overflows	Lake Washington	47.697458˚	-122.272650˚
027a	Denny Way Regulator	Elliott Bay	47.618139˚	-122.361888˚
028	King Street Regulator	Elliott Bay	47.599003˚	-122.337425˚
029	Kingdome	Elliott Bay	47.592532˚	-122.342106˚
030	Lander St. Regulator	Elliott Bay	47.581476˚	-122.342997˚

Outfall No.	Facility Name	Receiving Water	Latitude	Longitude
031a, b, c	Hanford #1 Overflow - Via Diagonal Storm Drain	Duwamish River	47.563108˚	-122.345315˚
032	Hanford #2 Regulator	Duwamish - East Waterway	47.577223˚	-122.34278˚
033	Rainier Ave Pump Station	Lake Washington	47.571374˚	-122.27553˚
034	E. Duwamish Pump Station	Duwamish River	47.562985˚	-122.345272˚
035	W. Duwamish Pump Station	Duwamish River	47.563224˚	-122.348256˚
036	Chelan Ave Regulator	Duwamish - West Waterway	47.573667˚	-122.357779˚
037	Harbor Avenue Regulator	Duwamish to Elliott Bay	47.573706˚	-122.361159˚
038	Terminal 115 Overflow	Duwamish River	47.54826˚	-122.340503˚
039	Michigan S. Regulator	Duwamish River	47.54353˚	-122.334967˚
040	8th Ave South Reg. (W. Marginal Way PS)	Duwamish River	47.533648˚	-122.322639˚
041	Brandon Street Regulator	Duwamish River	47.554661˚	-122.340832˚
042	Michigan W. Regulator	Duwamish River	47.541561˚	-122.334994˚
043	East Marginal Pump Station	Duwamish River	47.537048˚	-122.31849˚
044a	Norfolk Outfall	Duwamish River	47.511941˚	-122.297356˚
045	Henderson Pump Station	Lake Washington	47.523285˚	-122.26295˚
048a,b	North Beach Pump Station: a.) wet well, b) inlet structure	Puget Sound	47.704007˚ 47.702142˚	-122.392337˚ -122.392564˚
049	30th Avenue NE Pump Station	Lake Washington	47.656698˚	-122.287589˚
052	53rd Avenue SW Pump Station	Puget Sound	47.584799˚	-122.402552˚
054	63rd Avenue SW Pump Station	Puget Sound	47.570016˚	-122.416301˚
055	SW Alaska Street Overflow	Puget Sound	47.559442˚	-122.406947˚
056	Murray Street Pump Station	Puget Sound	47.540275˚	-122.400003˚
057	Barton Street Pump Station	Puget Sound	47.523886˚	-122.396393˚

S11.B. Nine minimum controls

In accordance with chapter 173-245 WAC and US EPA CSO control policy (59 FR 18688), the Permittee must implement and document the following nine minimum controls (NMC) for CSOs. The Permittee must document compliance with the NMCs in the annual CSO report as required in Special Condition S11.C.

The NMCs are considered technology-based requirements for CSO systems. In order to comply with these requirements, the Permittee must:

1. Implement proper operation and maintenance programs for the sewer system and all CSO outfalls to reduce the magnitude, frequency, and duration of CSOs. The program must consider regular sewer inspections; sewer, catch basin, and regulator cleaning; equipment and sewer collection system repair or replacement, where necessary; and disconnection of illegal connections.
2. Implement procedures that will maximize use of the collection system for wastewater storage that can be accommodated by the storage capacity of the collection system in order to reduce the magnitude, frequency, and duration of CSOs.

3. Review and modify, as appropriate, its existing pretreatment program to minimize CSO impacts from the discharges from non-domestic users. Starting with its annual Pretreatment Report submitted in 2016, the County must include in the report, for each discharger with a King County discharge authorization (major or minor) or discharge permit, the downstream CSO outfall(s) to which the discharger contributes, where applicable.
4. Operate the wastewater treatment plant at maximum treatable flow during all wet weather flow conditions to reduce the magnitude, frequency, and duration of CSOs. The Permittee must deliver all flows to the treatment plant within the constraints of the treatment capacity of the treatment works.
5. Not discharge overflows from CSO outfalls except as a result of precipitation events; dry weather overflows from CSO outfalls are prohibited. The Permittee must report each dry weather overflow to the permitting authority immediately per Special Condition S3.E. When it detects a dry weather overflow, the Permittee must begin corrective action immediately and inspect the dry weather overflow each subsequent day until it has eliminated the overflow.
6. Implement measures to control solid and floatable materials in CSOs.
7. Implement a pollution prevention program focused on reducing the impact of CSOs on receiving waters. Best management practices (BMPs) to control pollutant sources in stormwater in CSO basins must be an element of the pollution prevention program. Ecology's *Stormwater Management Manual for Western Washington* (2012) contains appropriate BMPs for reference.

   Starting with the Annual CSO Report submitted in 2017, the Permittee must include a detailed description of the pollution prevention program, appropriate BMPs, and the legal authority and administrative procedures that will be used to ensure the program is being implemented. If the legal authority and/or administrative procedures are not in place, the Annual CSO Report must include a detailed description of the steps needed to establish such a program and the timeline for getting the program in place.
8. Continue to implement the public notification process that informs citizens of when and where CSOs occur. The process must continue to include (a) a mechanism to alert citizens of CSO occurrences and (b) a system to determine the nature and duration of conditions that are potentially harmful for users of receiving waters due to CSOs.
9. Monitor CSO outfalls to characterize CSO impacts and the efficacy of CSO controls. This must include collection of data to document existing baseline conditions and to evaluate the efficacy of the technology-based controls. This data must include:

   a. Characteristics of the combined sewer system, including the population served by the combined portion of the system and locations of all CSO outfalls.

b. Total number of CSO events, and the frequency and duration of CSOs for all events.

c. Locations and designated uses of receiving water bodies.

d. Water quality data for receiving water bodies.

e. Water quality impacts directly related to CSO (e.g., beach closing, floatables, wash-up episodes, fish kills).

S11.C. Combined sewer overflow reporting

1. Monthly CSO Report

The Permittee must submit a monthly report by the 15th of each month that includes:

a. Discharge monitoring reports (DMRs) and narrative summaries for each CSO treatment plant (Alki, Carkeek, Elliott West, and Henderson), and

b. An event-based summary that includes discharge volume, duration, and precipitation for all CSO discharge events that occur during the reporting period.

2. Annual CSO Report

The Permittee must submit a CSO Annual Report to Ecology for review by July 31st of each year. The CSO Annual Report must cover the previous calendar year. The report must comply with the requirements of WAC 173-245-090(1) and must include documentation of compliance with the Nine Minimum Controls for CSOs described in Special Condition S11.B. The Permittee must submit paper and electronic copies of the report, and Excel spreadsheet copies of significant spreadsheets. The CSO Annual Report must include the following information:

a. A summary of the number and volume of untreated discharge events per outfall for that year.

b. A summary of the 20-year moving average number of untreated discharge events per outfall, calculated once annually.

c. An event-based reporting form (provided by Ecology) for all CSO discharges for the reporting period, summarizing all data collected according to the monitoring schedule in Special Condition S11.B.9.

d. An explanation of the previous year's CSO reduction accomplishments.

e. A list of CSO reduction projects planned for the next year.

f. A list of which permitted CSO outfalls can be categorized as meeting the one untreated discharge per year on a 20-year moving average performance standard. This annual assessment may be based on historical long-term discharge data, modeling, or other reasonable methods as approved by Ecology.

S11.D. Combined sewer overflow reduction plan amendment

The Permittee must submit an amendment of its *2012 Long Term Control Plan Amendment* (also referred to as a CSO Reduction Plan) to Ecology for review and approval with the application for permit renewal. The amendment must comply with the requirements of WAC 173-245-090(2).

S11.E. Engineering reports and plans and specifications for CSO reduction projects

The Permittee must submit to Ecology an engineering report for each specific CSO reduction construction project. Engineering documents associated with each CSO reduction project must meet the requirements of WAC 173-240-060, *Engineering Report*, and be approved by Ecology prior to construction. The report must:

1. Specify any contracts, ordinances, methods of financing, or any other arrangements necessary to achieve this objective.
2. Describe how each project will achieve the performance standard of *greatest reasonable control* and explicitly state the expected frequency of overflow events per year per associated outfall after the CSO reduction construction project has been completed.
3. Identify the potential hydraulic impacts of the project on downstream conveyance and treatment facilities.

For each specific CSO reduction construction project, the Permittee must prepare and submit approvable plans and specifications consistent with chapter 173-240-070 WAC to Ecology for review and approval. Ecology must approve plans and specifications prior to construction.

Prior to the start of construction, the Permittee must submit to Ecology a construction quality assurance plan as required by chapter 173-240-075 WAC.

S11.F. Requirements for controlled combined sewer overflows

a. CSOs identified as controlled

Based on monitoring data presented in King County's *2012 Annual CSO Report* and King County's *2012 Long Term Control Plan Amendment*, the 16 CSO outfalls listed in Table 6 meet the requirement of "greatest reasonable reduction" as defined in chapter WAC 173-245-020(22). Frequency of overflow events at these CSO outfalls, as a result of precipitation events, must continue to meet the performance standard.

Table 6. Controlled CSO outfalls (16)

CSO Outfall No	Location/Name	Receiving Water	Latitude	Longitude
007	Canal Street Overflow	Lake Washington Ship Canal	47.651856˚	-122.358113˚
011	E Pine St. PS Emergency Overflow	Lake Washington	47.614926˚	-122.280304˚
012	Belvoir PS Emergency Overflow	Lake Washington	47.656698˚	-122.287589˚
013	MLK Trunkline Overflow - via storm drain	Lake Washington	47.523285˚	-122.26295˚
018	Matthews Park PS Emergency Overflows	Lake Washington	47.697458˚	-122.27265˚
033	Rainier Ave Pump Station	Lake Washington	47.571374˚	-122.27553˚
034	E. Duwamish Pump Station	Duwamish River	47.563224˚	-122.348256˚
035	W. Duwamish Pump Station	Duwamish River	47.562986˚	-122.345272˚
040	8th Ave South Reg. (W Marginal Way PS)	Duwamish River	47.533648˚	-122.322639˚
043	East Marginal Pump Station	Duwamish River	47.537048˚	-122.31849˚
044a	Norfolk Outfall	Duwamish River	47.511941˚	-122.297356˚
045	Henderson Pump Station	Lake Washington	47.523285˚	-122.26295˚
049	30th Avenue NE Pump Station	Lake Washington	47.656698˚	-122.287589˚
052	53rd Avenue SW Pump Station	Puget Sound	47.584799˚	-122.402552˚
054	63rd Avenue SW Pump Station	Puget Sound	47.570016˚	-122.416301˚
055	SW Alaska Street Overflow	Puget Sound	47.559442˚	-122.406947˚

b. Performance standards for controlled CSO outfalls

The performance standard for each controlled CSO outfall is not more than one discharge event per outfall per year on average, due to precipitation. Ecology evaluates compliance with the performance standard annually based on a 20 year moving average. The Permittee must report the running 20-year average number of overflow events per year during this permit term from these CSO outfalls in the *CSO Annual Report* required in Section S11.C.

c. CSO post construction monitoring

The Permittee must continue to implement a post construction compliance monitoring program to verify the effectiveness of CSO controls and to demonstrate compliance with water quality standards and protection of designated uses. The Permittee must follow the approved *King County 2012 Post Construction Monitoring Plan* and submit to Ecology for review and approval any proposed changes to this plan.

d. CSO post construction monitoring data report

The Permittee must submit to Ecology, by December 1, 2019, a post-construction monitoring summary report that demonstrates how each CSO outfall listed as controlled in Table 6, as well as those brought under control during the permit term, achieves performance requirements and complies with state water and sediment quality standards. The report must

conform to the approved *CSO Post Construction Monitoring Plan*. For outfalls with SMS exceedances associated with CSO discharges, the report must describe clean-up activities in the vicinity including clean-up actions planned or that have been performed, targeted chemicals, any available pre- and post-cleanup monitoring results, clean-up project schedule, post-project monitoring schedule, and a list of parties involved.

The outfalls scheduled to be controlled during this permit term and to be discussed in the CSO post construction monitoring data report include: Dexter Avenue Regulator (DSN 009), Denny Way Regulator (DSN 027a), Harbor Avenue Regulator (DSN 037), Ballard Siphon Regulator (DSN 003), Barton (DSN 057), Murray (DSN 056), South Magnolia (DSN 006), and North Beach (DSN 048).

S12. Spill control plan

The Permittee must:

1. Review the West Point WWTP Spill Plan at least annually and update as needed.
2. Send updated plans to Ecology when significant changes are made.
3. Follow the plan and any supplements throughout the term of the permit.

The spill control plan must include the following:

1. A list of all oil and petroleum products and other materials used and/or stored on site, which when spilled, or otherwise released into the environment, designate as dangerous waste (DW) or extremely hazardous waste (EHW) by the procedures set forth in WAC 173-303-070. Include other materials used and/or stored on site which may become pollutants or cause pollution upon reaching state's waters.
2. A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) which prevent, contain, or treat spills of these materials.
3. A description of the reporting system the Permittee will use to alert responsible managers and legal authorities in the event of a spill.
4. A description of operator training to implement the plan.

S13. Sediment monitoring

S13.A. Sediment sampling – West Point WWTP

a. Sediment sampling and analysis plan

The Permittee must submit to Ecology for review and approval a sediment sampling and analysis plan for sediment monitoring for the West Point WWTP outfall. The Permittee must submit one paper copy and an electronic copy (preferably as a PDF) by December 1, 2016. The purpose of the plan is to re-characterize sediment quality in the vicinity of the discharge location.

The Permittee must:

- Follow the guidance provided in the *Sediment Source Control Standards User Manual, Appendix B: sediment sampling and analysis plan* (Ecology, 2008). Method detection limits must be listed in the plan.
- Collect enough sediment in the top 10 cm at each station to allow for conventional parameter testing (percent solids, total organic carbon, particle size), chemistry testing, and if necessary, bioassay testing. Chemistry tests must be performed before bioassay tests and if there are Sediment Quality Standard (SQS) exceedances, then bioassay tests must be performed.
- Chemistry: Analyze conventional parameters and the full suite of 47 Sediment Management Standards (SMS) marine chemicals at all stations.
- Bioassay: Perform bioassay tests at all stations with SQS exceedances. Run parallel larval echinoderm tests, using standard protocols and screen tube manipulation, in order to see if a physical influence from turbidity in the overlying test water continues to lead to failed bioassays.
- Stations: Collect samples at the same stations as the previous sampling events. Identify the predominant current direction in the vicinity of the outfall on all figures.

b. Sediment data report

Following Ecology approval of the Sediment Sampling and Analysis Plan, the Permittee must collect sediments between August 15th and September 15th. The Permittee must submit to Ecology a Sediment Data Report containing the results of the sediment sampling and analysis no later than December 1, 2018. The Permittee must submit two paper copies and an electronic copy (preferably as a PDF). The sediment data report must conform to the approved sediment sampling and analysis plan.

In addition to a Sediment Data Report, the sediment chemical and biological data must be submitted to Ecology's EIM database (http://www.ecy.wa.gov/eim/), and Ecology's MyEIM tools must be used to confirm the accuracy of the submitted data (http://www.ecy.wa.gov/eim/MyEIM.htm).

S13.B. Sediment sampling – CSO outfalls

The Permittee must model and/or collect sediment samples in the vicinities of controlled CSO outfalls: E. Pine Street Pump Station Emergency Overflow (011), Belvoir (012)/30th Ave NE Pump Station (049), Martin Luther King (013)/Henderson Pump Station (045), Matthews Park Pump Station Emergency Overflow (018), and Rainier Avenue Pump Station Emergency Overflow (033). A sediment sampling and analysis plan (SAP) must be submitted by December 1, 2016 in accordance with (a) below. Following Ecology approval of the sediment SAP, the Permittee must collect sediments according to the SAP. The Permittee must submit to Ecology a sediment data report, in accordance with (b) below, that contains the sediment sampling and analysis results no later than December 1, 2018.

In addition, the Permittee must model and/or sample sediments in accordance with their approved *2012 Post Construction Monitoring Plan* or any subsequent approved plan revisions. Post construction monitoring of sediments is required with the completion of CSO projects once the CSO has been deemed controlled unless sufficient recent data exists that shows there are no SMS exceedances. An exception is made if an area-wide cleanup project is planned with sediment sampling scheduled at cleanup project completion.

For each CSO outfall site that requires sediment monitoring, the Permittee must submit a sediment sampling and analysis plan and data report in accordance with the following.

a. Sediment sampling and analysis plan

The Permittee must submit to Ecology for review and approval a sediment sampling and analysis plan (SSAP) for sediment monitoring at least eight months prior to sediment testing. The Permittee must submit one paper copy and an electronic copy (preferably as a PDF). The purpose of the plan is to characterize sediment (the nature and extent of chemical contamination and biological toxicity) quality in the vicinity of the discharge locations. The SSAP must be consistent with the *CSO Sediment Quality Characterization Sampling and Analysis Plan* in Appendix H of the County's approved *Post-Construction Monitoring Plan.* The Permittee must list method detection limits in the plan.

b. Sediment data report

Following Ecology approval of the Sediment Sampling and Analysis Plan, the Permittee must collect sediments according to the plan. The Permittee must submit to Ecology a Sediment Data Report containing the results of the sediment sampling and analysis no later than ten months after the data was collected. The Permittee must submit two paper copies and an electronic copy (preferably as a PDF). The sediment data report must conform to the approved sediment sampling and analysis plan.

In addition to a Sediment Data Report, the sediment chemical and biological data must be submitted to Ecology's EIM database (http://www.ecy.wa.gov/eim/), and Ecology's MyEIM tools must be used to confirm the accuracy of the submitted data (http://www.ecy.wa.gov/eim/MyEIM.htm).

S13.C. Sediment quality summary at CSO outfalls

The Permittee must submit to Ecology an update to the *2009 Comprehensive Sediment Quality Summary Report* no later than December 1, 2018. The 2009 report summarizes sediment data collected at all CSO outfalls including CSO treatment plants. The purpose of this update is to keep CSO sediment monitoring history information consolidated to help King County and Ecology assess the potential for sediment impacts from CSO discharges.

This update report must provide any new site-specific information including quantity and quality of the discharges, receiving water characteristics, and new knowledge about sediment quality near the CSO outfalls. The report must also include a status of sediment cleanup sites and monitoring plans.

Data not previously submitted and not yet formatted and future data must be formatted in the EIM format.

S14. Outfall evaluation

The Permittee must inspect, once during the permit term, the submerged portions of the West Point WWTP and CSO treatment plant outfall lines and diffusers to document their integrity and continued function. If conditions allow for a photographic verification, the Permittee must include such verification in the reports. The Permittee must submit the inspection reports to Ecology with the NPDES Permit renewal application. The inspector must at minimum:

- Assess the physical condition of the outfall pipes, diffusers, and associated couplings.
- Determine the extent of sediment accumulation in the vicinity of the diffusers.
- Ensure diffuser ports are free of obstructions and are allowing uniform flow.
- Confirm physical location (latitude/longitude) and depth (at MLLW) of the diffuser sections of the outfalls.
- Assess physical condition of anchors used to secure the submarine lines.
- For the West Point WWTP, follow-up on the findings from the 2011 inspection by inspecting gaps and checking for leaks at station 30.

S15. Elliott West CSO treatment plant – copper reduction assessment

The Permittee must assess copper discharges from the Elliott West CSO treatment plant and submit a *Copper Reduction Assessment Report* to Ecology by November 1, 2018. As part of the assessment, the Permittee must:

1. Evaluate sample reliability/accuracy of copper measurements, including potential sample interferences, from the Elliott West facility.
2. Assess copper discharge patterns such as first flush or seasonal (wet season vs. dry season) impacts, land use patterns, etc.
3. Conduct a copper source inventory and provide a list of significant copper sources.
4. Provide a description of copper source control options.
5. Examine opportunities for outfall mixing enhancements.
6. Recommend a preferred strategy with corresponding schedule to address copper discharges from the Elliott West CSO treatment plant.

S16. Elliott West CSO treatment plant – settleable solids removal assessment

The Permittee must assess settleable solids discharges from the Elliott West CSO treatment plant and submit a *Settleable Solids Reduction Assessment Report* to Ecology by November 1, 2018. As part of the assessment, the Permittee must:

1. Assess settleable solids discharge patterns such as seasonal or first flush impacts, stormwater vs. domestic wastewater concentrations, etc.

2. Recommend a preferred strategy with corresponding schedule to address settleable solids discharges from the Elliott West CSO treatment plant in order to meet the annual average settleable solids limit.

S17. Application for permit renewal or facility modifications

The Permittee must submit an application for renewal of this permit one year prior to its expiration date, or by January 31, 2019. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF).

The Permittee must also submit a new application or application supplement at least one hundred eighty (180) days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

General Conditions

G1. Signatory requirements

1. All applications, reports, or information submitted to Ecology must be signed and certified.

   a. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

      - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
      - The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

   b. In the case of a partnership, by a general partner.

   c. In the case of sole proprietorship, by the proprietor.

   d. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

   Applications for permits for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity shall be submitted by the public entity.

2. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to Ecology.

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to authorization. If an authorization under paragraph G1.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of

paragraph G1.2, above, must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section must make the following certification:

   I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

G2. Right of inspection and entry

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

1. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
2. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
3. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
4. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. Permit actions

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the Permittee) or upon Ecology's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 40 CFR 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

1. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
   a. Violation of any permit term or condition.
   b. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
   c. A material change in quantity or type of waste disposal.
   d. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination.

e. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or biosolids use or disposal practice controlled by the permit.

f. Nonpayment of fees assessed pursuant to RCW 90.48.465.

g. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.

2. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:

a. A material change in the condition of the waters of the state.

b. New information not available at the time of permit issuance that would have justified the application of different permit conditions.

c. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.

d. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.

e. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.

f. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.

g. Incorporation of an approved local pretreatment program into a municipality's permit.

3. The following are causes for modification or alternatively revocation and reissuance:

a. When cause exists for termination for reasons listed in 1.a through 1.g of this section, and Ecology determines that modification or revocation and reissuance is appropriate.

b. When Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G7) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

G4. Reporting planned changes

The Permittee must, as soon as possible, but no later than one hundred eighty (180) days prior to the proposed changes, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

1. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b)

2. A significant change in the nature or an increase in quantity of pollutants discharged.

3. A significant change in the Permittee's biosolids use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing

application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. Plan review required

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with chapter 173-240 WAC. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G6. Compliance with other laws and statutes

Nothing in this permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. Transfer of this permit

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology.

1. Transfers by Modification

   Except as provided in paragraph (2) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

2. Automatic Transfers

   This permit may be automatically transferred to a new Permittee if:

   a. The Permittee notifies Ecology at least thirty (30) days in advance of the proposed transfer date.

   b. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.

   c. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G8. Reduced production for compliance

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G9. Removed substances

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G10. Duty to provide information

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G11. Other requirements of 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. Additional monitoring

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. Payment of fees

The Permittee must submit payment of fees associated with this permit as assessed by Ecology.

G14. Penalties for violating permit conditions

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars ($10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit may incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars ($10,000) for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G15. Upset

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary non-compliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include non-compliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for non-compliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset.
2. The permitted facility was being properly operated at the time of the upset.
3. The Permittee submitted notice of the upset as required in Special Condition S3.F.
4. The Permittee complied with any remedial measures required under S3.F of this permit.

In any enforcement action the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. Property rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. Duty to comply

The Permittee must comply with all conditions of this permit. Any permit non-compliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. Toxic pollutants

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. Penalties for tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G20. Compliance schedules

Reports of compliance or non-compliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than fourteen (14) days following each schedule date.

G21. Service agreement review

The Permittee must submit to Ecology any proposed service agreements and proposed revisions or updates to existing agreements for the operation of any wastewater treatment facility covered by this permit. The review is to ensure consistency with chapters 90.46 and 90.48 RCW as required by RCW 70.150.040(9). In the event that Ecology does not comment within a thirty-day (30) period, the Permittee may assume consistency and proceed with the service agreement or the revised/updated service agreement.

Appendix A

LIST OF POLLUTANTS WITH ANALYTICAL METHODS, DETECTION LIMITS AND QUANTITATION LEVELS

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table for permit and application required monitoring unless:

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136, or EPA has granted the laboratory written permission to use the method.
- The Permittee knows that an alternate, less sensitive method (higher DL and QL) from those listed below is sufficient to produce measurable results in their effluent.
- If the Permittee is unable to obtain the required DL and QL due to matrix effects (such as for treatment plant influent or CSO effluent), the Permittee must strive to achieve to lowest possible DL and QL and report the DL and QL in the required report.

If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

All pollutants that have numeric limits in Section S1 of this permit must be analyzed with the methods specified below. When the permit requires the Permittee to measure the base neutral compounds in the list of priority pollutants, it must measure all of the base neutral pollutants listed in the table below. The list includes EPA required base neutral priority pollutants and several additional polynuclear aromatic hydrocarbons (PAHs). The Water Quality Program added several PAHs to the list of base neutrals below from Ecology's Persistent Bioaccumulative Toxics (PBT) List. It only added those PBT parameters of interest to Appendix A that did not increase the overall cost of analysis unreasonably.

Ecology added this appendix to the permit in order to reduce the number of analytical "non-detects" in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost.

CONVENTIONAL PARAMETERS

Pollutant & CAS No. ***(if available)***	**Recommended Analytical Protocol**	**Detection (DL)[1]** ***µg/L unless specified***	**Quantitation Level (QL)[2]** ***µg/L unless specified***
Biochemical Oxygen Demand	SM5210-B		2 mg/L
Total Suspended Solids	SM2540-D		5 mg/L
Total Ammonia (as N)	SM4500-NH3-B and C/D/E/G/H Kerouel & Aminot 1997		0.3 mg/L
Dissolved oxygen	SM4500-OC/OG		0.2 mg/L
Temperature (max. 7-day avg.)	Analog recorder or use micro-recording devices known as thermistors		0.2º C
pH	SM4500-H^+ B	N/A	N/A

NONCONVENTIONAL PARAMETERS

Pollutant & CAS No. (if available)	**Recommended Analytical Protocol**	**Detection (DL)[1] µg/L unless specified**	**Quantitation Level (QL)[2] µg/L unless specified**
Total Alkalinity	SM2320-B		1.3 mg/L as CaCO3
Chlorine, Total Residual	SM4500 Cl G 4500 Cl D/E, Hach 8370		50.0
Fecal Coliform	SM 9221E,9222	N/A	Specified in method - sample aliquot dependent
Nitrate + Nitrite Nitrogen (as N)	SM4500-NO3- E/F/H		200
Nitrogen, Total Kjeldahl (as N)	SM4500-N_{org}B/C and SM4500NH_3-B/C/D/EF/G/H EPA 351.2		500

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)[1] µg/L unless specified	Quantitation Level (QL)[2] µg/L unless specified
Nitrogen, Total (as N)	SM4500-N-C	50	100
Soluble Reactive Phosphorus (as P)	SM4500- PE/PF	100	100
Phosphorus, Total (as P)	SM 4500 PB followed by SM4500-PE/PF	100	300
Oil and Grease (HEM)	1664 A or B	1,400	5,000
Salinity	SM2520-B		3 practical salinity units or scale (PSU or PSS)
Settleable Solids	SM2540 -F		Sample and limit dependent
Sulfate (as mg/L SO_4)	SM4110-B, 4500-SO4 E		7.1 mg/L
Sulfide (as mg/L S)	SM4500-S^2F/D/E/G		200
Sulfite (as mg/L SO_3)	SM4500-SO3B		2000
Total dissolved solids	SM2540 C		20 mg/L
Total Hardness	SM2340B C, 200.7, 200.8		200 as $CaCO_3$
Aluminum, Total (7429-90-5)	200.8	2.0	10
Barium Total (7440-39-3)	200.8	0.5	2.0
BTEX (benzene +toluene + ethylbenzene + m,o,p xylenes)	EPA SW 846 8021/8260	1	2
Boron Total (7440-42-8)	200.8	2.0	10.0
Cobalt, Total (7440-48-4)	200.8	0.05	0.25
Iron, Total (7439-89-6)	200.7, 200.8	12.5	50
Magnesium, Total (7439-95-4)	200.7, 200.8	10	50
Molybdenum, Total (7439-98-7)	200.8	0.1	0.5
Manganese, Total (7439-96-5)	200.8	0.1	0.5
NWTPH Dx [4]	Ecology NWTPH Dx	250	250
NWTPH Gx [5]	Ecology NWTPH Gx	250	250
Tin, Total (7440-31-5)	200.8	0.3	1.5
Titanium, Total (7440-32-6)	200.8	0.5	2.5

METALS, CYANIDE & TOTAL PHENOLS			
Antimony, Total (7440-36-0)	200.8	0.3	1.0
Arsenic, Total (7440-38-2)	200.8	0.1	0.5
Beryllium, Total (7440-41-7)	200.8	0.1	0.5
Cadmium, Total (7440-43-9)	200.8	0.05	0.25
Chromium (hex) dissolved (18540-29-9)	SM3500-Cr B	5	10
Chromium, Total (7440-47-3)	200.8	0.2	1.0
Copper, Total (7440-50-8)	200.8	0.4	2.0
Lead, Total (7439-92-1)	200.8	0.1	0.5
Mercury, Total (7439-97-6)	1631E	0.0002	0.0005
Nickel, Total (7440-02-0)	200.8	0.1	0.5
Selenium, Total (7782-49-2)	200.8	1.0	1.0
Silver, Total (7440-22-4)	200.8	0.04	0.2
Thallium, Total (7440-28-0)	200.8	0.09	0.36
Zinc, Total (7440-66-6)	200.8	0.5	2.5
Cyanide, Total (57-12-5)	335.4, SM4500-CN-C,E	5	10
Cyanide, Weak Acid Dissociable	SM4500-CN I	5	10
Cyanide, Free Amenable to Chlorination (Available Cyanide)	SM4500-CN G	5	10
Phenols, Total	EPA 420.1		50
ACID COMPOUNDS			
2-Chlorophenol (95-57-8)	625	1.0	2.0
2,4-Dichlorophenol (120-83-2)	625	0.5	1.0

2,4-Dimethylphenol (105-67-9)	625	0.5	1.0
4,6-dinitro-o-cresol (534-52-1) (2-methyl-4,6,-dinitrophenol)	625/1625B	2.0	4.0
2,4 dinitrophenol (51-28-5)	625	1.5	3.0
2-Nitrophenol (88-75-5)	625	0.5	1.0
4-nitrophenol (100-02-7)	625	1.0	2.0
Parachlorometa cresol (59-50-7) (4-chloro-3-methylphenol)	625	1.0	2.0
Pentachlorophenol (87-86-5)	625	0.5	1.0
Phenol (108-95-2)	625	2.0	4.0
2,4,6-Trichlorophenol (88-06-2)	625	2.0	4.0
VOLATILE COMPOUNDS			
Acrolein (107-02-8)	624	5	10
Acrylonitrile (107-13-1)	624	1.0	2.0
Benzene (71-43-2)	624	1.0	2.0
Bromoform (75-25-2)	624	1.0	2.0
Carbon tetrachloride (56-23-5)	624/601 or SM6230B	1.0	2.0
Chlorobenzene (108-90-7)	624	1.0	2.0
Chloroethane (75-00-3)	624/601	1.0	2.0
2-Chloroethylvinyl Ether (110-75-8)	624	1.0	2.0
Chloroform (67-66-3)	624 or SM6210B	1.0	2.0
Dibromochloromethane (124-48-1)	624	1.0	2.0
1,2-Dichlorobenzene (95-50-1)	624	1.9	7.6
1,3-Dichlorobenzene (541-73-1)	624	1.9	7.6
1,4-Dichlorobenzene (106-46-7)	624	4.4	17.6
Dichlorobromomethane (75-27-4)	624	1.0	2.0
1,1-Dichloroethane (75-34-3)	624	1.0	2.0
1,2-Dichloroethane (107-06-2)	624	1.0	2.0
1,1-Dichloroethylene (75-35-4)	624	1.0	2.0
1,2-Dichloropropane (78-87-5)	624	1.0	2.0
1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene) (542-75-6) [6]	624	1.0	2.0
Ethylbenzene (100-41-4)	624	1.0	2.0
Methyl bromide (74-83-9) (Bromomethane)	624/601	5.0	10.0
Methyl chloride (74-87-3) (Chloromethane)	624	1.0	2.0
Methylene chloride (75-09-2)	624	5.0	10.0
1,1,2,2-Tetrachloroethane (79-34-5)	624	1.9	2.0
Tetrachloroethylene (127-18-4)	624	1.0	2.0
Toluene (108-88-3)	624	1.0	2.0
1,2-Trans-Dichloroethylene (156-60-5) (Ethylene dichloride)	624	1.0	2.0
1,1,1-Trichloroethane (71-55-6)	624	1.0	2.0
1,1,2-Trichloroethane (79-00-5)	624	1.0	2.0
Trichloroethylene (79-01-6)	624	1.0	2.0
Vinyl chloride (75-01-4)	624/SM6200B	1.0	2.0
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)			
Acenaphthene (83-32-9)	625	0.2	0.4
Acenaphthylene (208-96-8)	625	0.3	0.6
Anthracene (120-12-7)	625	0.3	0.6
Benzidine (92-87-5)	625	20	40
Benzyl butyl phthalate (85-68-7)	625	0.3	0.6
Benzo(*a*)anthracene (56-55-3)	625	0.3	0.6
Benzo(b)fluoranthene (3,4-benzofluoranthene) (205-99-2) [7]	610/625	0.8	1.6
Benzo(j)fluoranthene (205-82-3) [7]	625	0.5	1.0
Benzo(k)fluoranthene (11,12-benzofluoranthene) (207-08-9) [7]	610/625	0.8	1.6
Benzo(r,s,t)pentaphene (189-55-9)	625	1.3	5.0
Benzo(*a*)pyrene (50-32-8)	610/625	0.5	1.0

Benzo(*ghi*)Perylene (191-24-2)	610/625	0.5	1.0
Bis(*2-chloroethoxy)*methane (111-91-1)	625	5.3	21.2
Bis(*2-chloroethyl*)ether (111-44-4)	611/625	0.3	1.0
Bis(*2-chloroisopropyl*)ether (39638-32-9)	625	0.5	1.0
Bis(*2-ethylhexyl*)phthalate (117-81-7)	625	0.3	1.0
4-Bromophenyl phenyl ether (101-55-3)	625	0.3	0.5
2-Chloronaphthalene (91-58-7)	625	0.3	0.6
4-Chlorophenyl phenyl ether (7005-72-3)	625	0.3	0.5
Chrysene (218-01-9)	610/625	0.3	0.6
Dibenzo (a,h)acridine (226-36-8)	610M/625M	2.5	10.0
Dibenzo (a,j)acridine (224-42-0)	610M/625M	2.5	10.0
Dibenzo(a-*h*)anthracene (53-70-3)(1,2,5,6-dibenzanthracene)	625	0.8	1.6
Dibenzo(a,e)pyrene (192-65-4)	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene (189-64-0)	625M	2.5	10.0
3,3-Dichlorobenzidine (91-94-1)	605/625	2.0	4.0
Diethyl phthalate (84-66-2)	625	1.9	7.6
Dimethyl phthalate (131-11-3)	625	1.6	6.4
Di-n-butyl phthalate (84-74-2)	625	0.5	1.0
2,4-dinitrotoluene (121-14-2)	609/625	1.0	2.0
2,6-dinitrotoluene (606-20-2)	609/625	1.0	2.0
Di-n-octyl phthalate (117-84-0)	625	0.3	0.6
1,2-Diphenylhydrazine (*as Azobenzene*)(122-66-7)	1625B, 625	5.0	20
Fluoranthene (206-44-0)	625	0.3	0.6
Fluorene (86-73-7)	625	0.3	0.6
Hexachlorobenzene (118-74-1)	612/625	0.3	0.6
Hexachlorobutadiene (87-68-3)	625	0.5	1.0
Hexachlorocyclopentadiene (77-47-4)	1625B/625	2.0	4.0
Hexachloroethane (67-72-1)	625	0.5	1.0
Indeno(*1,2,3-cd*)Pyrene (193-39-5)	610/625	0.5	1.0
Isophorone (78-59-1)	625	0.5	1.0
3-Methyl cholanthrene (56-49-5)	625	2.0	8.0
Naphthalene (91-20-3)	625	0.4	0.75
Nitrobenzene (98-95-3)	625	0.5	1.0
N-Nitrosodimethylamine (62-75-9)	607/625	2.0	4.0
N-Nitrosodi-n-propylamine (621-64-7)	607/625	0.5	1.0
N-Nitrosodiphenylamine (86-30-6)	625	1.0	2.0
Perylene (198-55-0)	625	1.9	7.6
Phenanthrene (85-01-8)	625	0.3	0.6
Pyrene (129-00-0)	625	0.3	0.6
1,2,4-Trichlorobenzene (120-82-1)	625	0.3	0.6
DIOXIN			
2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (176-40-16) (2,3,7,8 TCDD)	1613B	1.3 pg/L	5 pg/L

1. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.
2. Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency, December 2007).
3. Soluble Biochemical Oxygen Demand method note: First, filter the sample through a Millipore Nylon filter (or equivalent) - pore size of 0.45-0.50 um (prep all filters by filtering 250 ml of laboratory grade deionized water through the filter and discard). Then, analyze sample as per method 5210-B.
4. NWTPH Dx Northwest Total Petroleum Hydrocarbons Diesel Extended Range – see http://www.ecy.wa.gov/biblio/97602.html
5. NWTPH Gx - Northwest Total Petroleum Hydrocarbons Gasoline Extended Range – see http://www.ecy.wa.gov/biblio/97602.html
6. 1, 3-dichloroproylene (mixed isomers) - You may report this parameter as two separate parameters: cis-1, 3-dichlorpropropene (10061-01-5) and trans-1, 3-dichloropropene (10061-02-6).
7. Total Benzofluoranthenes - Because Benzo(b)fluoranthene, Benzo(j)fluoranthene and Benzo(k)fluoranthene co-elute you may report these three isomers as total benzofluoranthenes.

EXHIBIT D

Issuance Date: January 16, 2017
Effective Date: March 1, 2017
Expiration Date: February 28, 2022

National Pollutant Discharge Elimination System
Waste Discharge Permit No. WA0022527

State of Washington
DEPARTMENT OF ECOLOGY
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq.

Vashon Wastewater Treatment Plant
King County Department of Natural Resources & Parks
Wastewater Treatment Division
201 S. Jackson St.
Seattle, WA 98104-3855

is authorized to discharge in accordance with the Special and General Conditions that follow.

Plant Location: 9621 SW 171 Street Vashon, WA 98070	Receiving Water: Puget Sound
Treatment Type: Oxidation Ditch	

Mark Henley, P.E.
Water Quality Section Manager
Northwest Regional Office
Washington State Department of Ecology

Exhibit D

Table of Contents

Summary of Permit Report Submittals

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report (DMR)	Monthly	April 15, 2017
S3.A	Discharge Monitoring Report (DMR)	Quarterly	July 15, 2017
S3.F	Reporting Permit Violations	As necessary	
S4.B	Plans for Maintaining Adequate Capacity	As necessary	
S4.D	Notification of New or Altered Sources	As necessary	
S5.F	Bypass Notification	As necessary	
S6.A.3	Pretreatment Report	1/year	April 30, 2017
S8	Acute Toxicity Effluent Test Results with Permit Renewal Application	2/permit cycle July 2019 January 2020	July 31, 2021
S9	Chronic Toxicity Effluent Test Results with Permit Renewal Application	2/permit cycle October 2019 March 2020	July 31, 2021
S10	Application for Permit Renewal	1/permit cycle	July 31, 2021
G1	Notice of Change in Authorization	As necessary	
G4	Reporting Planned Changes	As necessary	
G5	Engineering Report for Construction or Modification Activities	As necessary	
G7	Notice of Permit Transfer	As necessary	
G10	Duty to Provide Information	As necessary	
G20	Compliance Schedules	As necessary	
G21	Contract Submittal	As necessary	

Special Conditions

S1. Discharge limits

S1.A. Effluent limits

All discharges and activities authorized by this permit must comply with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a level in excess of, that identified and authorized by this permit violates the terms and conditions of this permit.

Beginning on the effective date of this permit, the Permittee may discharge treated domestic wastewater to the Puget Sound at the permitted location subject to compliance with the following limits:

Effluent Limits: Outfall 001 Latitude: 47.452917 Longitude: -122.433333		
Parameter	**Average Monthly** [a]	**Average Weekly** [b]
Biochemical Oxygen Demand (5-day) (BOD_5)	30 milligrams/liter (mg/L) 130 pounds/day (lbs/day) 85% removal of influent BOD_5	45 mg/L 195 lbs/day
Total Suspended Solids (TSS)	30 mg/L 130 lbs/day 85% removal of influent TSS	45 mg/L 195 lbs/day
Parameter	**Minimum**	**Maximum**
pH	6.0 standard units	9.0 standard units
Parameter	**Monthly Geometric Mean**	**Weekly Geometric Mean**
Fecal Coliform Bacteria [c]	200/100 milliliter (mL)	400/100 mL
Parameter	**Maximum Daily** [d]	
Total Residual Chlorine [f]	0.75 mg/L	

a	Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured. See footnote c for fecal coliform calculations.
b	Average weekly discharge limit means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges' measured during that week. See footnote c for fecal coliform calculations.
c	Ecology provides directions to calculate the monthly and the weekly geometric mean in publication No. 04-10-020, Information Manual for Treatment Plant Operators available at: http://www.ecy.wa.gov/pubs/0410020.pdf
d	Maximum daily effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day. For pollutants with limits expressed in units of mass, calculate the daily discharge as the total mass of the pollutant discharged over the day. This does not apply to pH or temperature.
f	Chlorine limits apply only during periods when chlorine is used for partial or full disinfection of the effluent. When UV disinfection is the only disinfection method used, chlorine limits do not apply. When not using chlorine for disinfection during the monitoring period, enter qualifier code “M” into the WQWebDMR form.

S1.B. Mixing zone authorization

Mixing zone for Outfall 001

The following paragraphs define the maximum boundaries of the mixing zones:

Chronic mixing zone

The mixing zone is a circular region with radius of 400 feet measured from the center of the discharge port. The mixing zone extends from the bottom to the top of the water column. The concentration of pollutants at the edge of the chronic zone must meet chronic aquatic life criteria and human health criteria.

Acute mixing zone

The acute mixing zone is a circular region with radius of 40 feet measured from the center of the discharge port. The mixing zone extends from the bottom to the top of the water column. The concentration of pollutants at the edge of the acute zone must meet acute aquatic life criteria.

Available Dilution (dilution factor)	
Acute Aquatic Life Criteria	89
Chronic Aquatic Life Criteria	681
Human Health Criteria - Carcinogen	681
Human Health Criteria - Non-carcinogen	681

S2. Monitoring requirements

S2.A. Monitoring schedule

The Permittee must monitor in accordance with the following schedule and the requirements specified in Appendix A.

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
(1) Wastewater influent			
Wastewater Influent means the raw sewage flow from the collection system into the treatment facility. Sample the wastewater entering the headworks of the treatment plant excluding any side-stream returns from inside the plant.			
Flow	gpd	Continuous [a]	Metered/Recorded
BOD_5	mg/L	2/week [c]	24-hr Composite [b]
BOD_5	lbs/day	2/week	Calculation [d]
TSS	mg/L	2/week	24-hr Composite
TSS	lbs/day	2/week	Calculation [d]
(2) Final wastewater effluent			
Final Wastewater Effluent means wastewater exiting the last treatment process or operation. Typically, this is after or at the exit from the chlorine contact chamber or other disinfection process. The Permittee may take effluent samples for the BOD_5 analysis before or after the disinfection process. If taken after, the Permittee must dechlorinate and reseed the sample.			
BOD_5 [g]	mg/L	2/week	24-hr Composite
BOD_5	lbs/day	2/week	Calculation [d]
BOD_5	% removal	1/month	Calculation [e]
TSS	mg/L	2/week	24-hr Composite

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
TSS	lbs/day	2/week	Calculation
TSS	% removal	1/month	Calculation
Chlorine (Total Residual) [h]	mg/L	Daily, when used for disinfection	Grab [f]
Fecal Coliform [i]	CFUs /100 ml	2/week	Grab
pH [j]	Standard Units	Continuous	Metered/Recorded
(3) Effluent characterization – final wastewater effluent			
Acute Toxicity Testing	--	2/permit cycle	24-hr Composite
Chronic Toxicity Testing	--	2/permit cycle	24-hr Composite
Additional requirements specified in Permit Conditions S8 & S9.			
(4) Effluent characterization – final wastewater effluent			
Total Ammonia	mg/L as N	Quarterly [k]	24-hr Composite
Nitrate plus Nitrite Nitrogen	mg/L as N	Quarterly	24-hr Composite
Total Kjeldahl Nitrogen (TKN)	mg/L as N	Quarterly	24-hr Composite
(5) Permit renewal application requirements – final wastewater effluent			
The Permittee must record and report the wastewater treatment plant flow discharged on the day it collects the sample for priority pollutant testing with the discharge monitoring report.			
Temperature [l]	Degrees Celsius	Quarterly during 2020	Measurement
Dissolved Oxygen	mg/L	Quarterly during 2020	Grab
Oil and Grease	mg/L	Quarterly during 2020	Grab
Total Dissolved Solids	mg/L	Quarterly during 2020	24-hr Composite
Total Hardness	mg/L	Quarterly during 2020	24-hr Composite
Cyanide	micrograms/liter (µg/L)	Quarterly during 2020	Grab
Total Phosphorus	mg/L	Quarterly during 2020	24-hr Composite
Priority Pollutants (PP) – Total Metals	µg/L; nanograms(ng/L) for mercury	Quarterly during 2020	24-hr Composite Grab for mercury

[a]	Continuous means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance. The time interval for the associated data logger must be no greater than 30 minutes. The Permittee must sample every 4 hours when continuous monitoring is not possible.
[b]	24-hour composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.
[c]	2/week means two (2) times during each calendar week.
[d]	Calculated means figured concurrently with the respective sample, using the following formula: Concentration (in mg/L) X Flow (in MGD) X Conversion Factor (8.34) = lbs/day
[e]	% removal = $\frac{\text{Influent concentration (mg/L)} - \text{Effluent concentration (mg/L)}}{\text{Influent concentration (mg/L)}} \times 100$ Calculate the percent (%) removal of BOD_5 and TSS using the above equation.
[f]	Grab means an individual sample collected over a fifteen (15) minute, or less, period.
[g]	Take effluent samples for the BOD_5 analysis before or after the disinfection process. If taken after, and if sampling occurs during a period when chlorine is being used for disinfection, dechlorinate and reseed the sample.
[h]	Chlorine limits apply only during emergency periods when UV disinfection is not available and the Permittee uses chlorine to disinfect effluent. During normal operations with UV disinfection, chlorine limits do not apply. When not using chlorine during the monitoring period, enter qualifier code "M" into the WQWebDMR form to indicate that for chlorine was conditional and not required for the monitoring period.

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
[i]	Report a numerical value for fecal coliforms following the procedures in Ecology's *Information Manual for Wastewater Treatment Plant Operators*, Publication Number 04-10-020 available at: http://www.ecy.wa.gov/programs/wq/permits/guidance.html . Do not report a result as too numerous to count (TNTC).		
[j]	The Permittee must report the instantaneous maximum and minimum pH daily. Do not average pH values.		
[k]	Quarterly sampling periods are January through March, April through June, July through September, and October through December. See condition S3.A.10.b for additional details.		
[l]	Temperature grab sampling must occur when the effluent is at or near its daily maximum temperature, which usually occurs in the late afternoon.		

S2.B. Sampling and analytical procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters. The Permittee must conduct representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions that may affect effluent quality.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 (or as applicable in 40 CFR subchapters N [Parts 400–471] or O [Parts 501-503]) unless otherwise specified in this permit . Ecology may only specify alternative methods for parameters without permit limits and for those parameters without an EPA approved test method in 40 CFR Part 136.

S2.C. Flow measurement and continuous monitoring devices

The Permittee must:

1. Select and use appropriate flow measurement and continuous monitoring devices and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard, the manufacturer's recommendation, and approved O&M manual procedures for the device and the wastestream.
3. Calibrate continuous monitoring instruments weekly unless it can demonstrate a longer period is sufficient based on monitoring records. The Permittee:
    a. May calibrate apparatus for continuous monitoring of dissolved oxygen by air calibration.
    b. Must calibrate continuous pH measurement instruments using a grab sample analyzed in the lab with a pH meter calibrated with standard buffers and analyzed within 15 minutes of sampling.

4. Calibrate flow-monitoring devices at a minimum frequency of at least one calibration per year or according to manufacturer's recommendation for that type of device.
5. Maintain calibration records for at least three years.

S2.D. Laboratory accreditation

The Permittee must ensure that all monitoring data required by Ecology for permit specified parameters is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. Flow, temperature, settleable solids, conductivity, pH, and internal process control parameters are exempt from this requirement. The Permittee must obtain accreditation for conductivity and pH if it must receive accreditation or registration for other parameters.

S2.E. Request for reduction in monitoring

The Permittee may request a reduction of the sampling frequency after twelve (12) months of monitoring. Ecology will review each request and at its discretion grant the request when it reissues the permit or by a permit modification.

The Permittee must:

1. Provide a written request.
2. Clearly state the parameters for which it is requesting reduced monitoring.
3. Clearly state the justification for the reduction.

S3. Reporting and recording requirements

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

S3.A. Discharge monitoring reports

The first monitoring period begins on the effective date of the permit (unless otherwise specified). The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic discharge monitoring report (DMR) form provided by Ecology within the Water Quality Permitting Portal. Include data for each of the parameters tabulated in Special Condition S2 and as required by the form. Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.
2. Enter the "No Discharge" reporting code for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.

3. Report single analytical values below detection as "less than the detection level (DL)" by entering < followed by the numeric value of the detection level (e.g. < 2.0) on the DMR. If the method used did not meet the minimum DL and quantitation level (QL) identified in the permit, report the actual QL and DL in the comments or in the location provided.
4. **Not** report zero for bacteria monitoring. Report as required by the laboratory method.
5. Calculate and report an arithmetic average value for each day for bacteria if multiple samples were taken in one day.
6. Calculate the geometric mean values for bacteria (unless otherwise specified in the permit) using:
    a. The reported numeric value for all bacteria samples measured above the detection value except when it took multiple samples in one day. If the Permittee takes multiple samples in one day it must use the arithmetic average for the day in the geometric mean calculation.
    b. The detection value for those samples measured below detection.
7. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit and as allowed in Appendix A.
8. Calculate average values and calculated total values (unless otherwise specified in the permit) using:
    a. The reported numeric value for all parameters measured between the agency-required detection value and the agency-required quantitation value.
    b. One-half the detection value (for values reported below detection) if the lab detected the parameter in another sample from the same monitoring point for the reporting period.
    c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for the reporting period.
9. Report single-sample grouped parameters (for example: priority pollutants) on the WQWebDMR form and include: sample date, concentration detected, detection limit (DL) (as necessary), and laboratory quantitation level (QL) (as necessary).

    The Permittee must also submit an electronic copy of the laboratory report as an attachment using WQWebDMR. The contract laboratory reports must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter.
10. Ensure that DMRs are electronically submitted no later than the dates specified below, unless otherwise specified in this permit.
11. Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below.

The Permittee must:

a. Submit **monthly** DMRs by the 15th day of the following month.

b. Submit **quarterly DMRs**, unless otherwise specified in the permit, by the 15th day of the month following the monitoring period. Quarterly sampling periods are January through March, April through June, July through September, and October through December. The Permittee must submit the first quarterly DMR on July 15, 2017 for the quarter beginning on April 1, 2017.

S3.B. Permit submittals and schedules

The Permittee must use the Water Quality Permitting Portal – Permit Submittals application (unless otherwise specified in the permit) to submit all other written permit-required reports by the date specified in the permit.

When another permit condition requires submittal of a paper (hard-copy) report, the Permittee must ensure that it is postmarked or received by Ecology no later than the dates specified by this permit. Send these paper reports to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

S3.C. Records retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

S3.D. Recording of results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

S3.E. Additional monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Special Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR unless otherwise specified by Special Condition S2.

S3.F. Reporting permit violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
2. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.

a. Immediate reporting

The Permittee must **immediately** report to Ecology and the Department of Health, Shellfish Program, and the Local Health Jurisdiction (at the numbers listed below), all:

- Failures of the disinfection system.
- Collection system overflows.
- Plant bypasses discharging to marine surface waters.
- Any other failures of the sewage system (pipe breaks, etc.)

Northwest Regional Office	**425-649-7000**
Department of Health, Shellfish Program	**360-236-3330 (business hours)** **360-789-8962 (after business hours)**
Public Health Seattle-King County	**206-477-8050 (Mon-Fri 8 am to 4 pm)**

Additionally, for any sanitary sewer overflow (SSO) that discharges to a municipal separate storm sewer system (MS4), the Permittee must notify the appropriate MS4 owner or operator.

b. Twenty-four-hour reporting

The Permittee must report the following occurrences of noncompliance by telephone, to Ecology at the telephone numbers listed above, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

1. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
2. Any unanticipated bypass that causes an exceedance of an effluent limit in the permit (See Part S5.F, “Bypass Procedures”).
3. Any upset that causes an exceedance of an effluent limit in the permit (See G.15, “Upset”).
4. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Section S1.A of this permit.
5. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit.

c. Report within five days

The Permittee must also submit a written report within five days of the time that the Permittee becomes aware of any reportable event under subparts a or b, above. The report must contain:

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times.
3. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
4. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
5. If the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

d. Waiver of written reports

Ecology may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

e. All other permit violation reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

S3.G. Other reporting

a. Spills of oil or hazardous materials

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and chapter 173-303-145. You can obtain further instructions at the following website: http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm .

b. Failure to submit relevant or correct facts

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

S3.H. Maintaining a copy of this permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

S4. Facility loading

S4.A. Design criteria

The flows or waste loads for the permitted facility must not exceed the following design criteria:

Maximum Month Design Flow (MMDF)	**0.52 MGD**
BOD_5 Influent Loading for Maximum Month	**671 lbs/day**
TSS Influent Loading for Maximum Month	**671 lbs/day**

S4.B. Plans for maintaining adequate capacity

a. Conditions triggering plan submittal

The Permittee must submit a plan and a schedule for continuing to maintain capacity to Ecology when:

1. The actual flow or waste load reaches 85 percent of any one of the design criteria in S4.A for three consecutive months.
2. The projected plant flow or loading would reach design capacity within five years.

b. Plan and schedule content

The plan and schedule must identify the actions necessary to maintain adequate capacity for the expected population growth and to meet the limits and requirements of the permit. The Permittee must consider the following topics and actions in its plan.

1. Analysis of the present design and proposed process modifications.
2. Reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system.
3. Limits on future sewer extensions or connections or additional waste loads.
4. Modification or expansion of facilities.
5. Reduction of industrial or commercial flows or waste loads.

Engineering documents associated with the plan must meet the requirements of WAC 173-240-060, "Engineering Report," and be approved by Ecology prior to any construction.

S4.C. Duty to mitigate

The Permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

S4.D. Notification of new or altered sources

1. The Permittee must submit written notice to Ecology whenever any new discharge or a substantial change in volume or character of an existing discharge into the wastewater treatment plant is proposed which:

a. Would interfere with the operation of, or exceed the design capacity of, any portion of the wastewater treatment plant.

b. Is not part of an approved general sewer plan or approved plans and specifications.

c. Is subject to pretreatment standards under 40 CFR Part 403 and Section 307(b) of the Clean Water Act.

2. This notice must include an evaluation of the wastewater treatment plant's ability to adequately transport and treat the added flow and/or waste load, the quality and volume of effluent to be discharged to the treatment plant, and the anticipated impact on the Permittee's effluent [40 CFR 122.42(b)].

S5. Operation and maintenance

The Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes keeping a daily operation logbook (paper or electronic), adequate laboratory controls, and appropriate quality assurance procedures. This provision of the permit requires the Permittee to operate backup or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of this permit.

S5.A. Certified operator

This permitted facility must be operated by an operator certified by the state of Washington for at least a Class II plant. This operator must be in responsible charge of the day-to-day operation of the wastewater treatment plant. An operator certified for at least a Class I plant must be in charge during all regularly scheduled shifts. The Permittee must notify Ecology when the operator in charge at the facility changes. It must provide the new operator's name and certification level and provide the name of the operator leaving the facility.

S5.B. Operation and maintenance program

The Permittee must:

1. Institute an adequate operation and maintenance program for the entire sewage system.

2. Keep maintenance records on all major electrical and mechanical components of the treatment plant, as well as the sewage system and pumping stations. Such records must clearly specify the frequency and type of maintenance recommended by the manufacturer and must show the frequency and type of maintenance performed.

3. Make maintenance records available for inspection at all times.

S5.C. Short-term reduction

The Permittee must schedule any facility maintenance, which might require interruption of wastewater treatment and degrade effluent quality, during non-critical water quality periods and carry this maintenance out according to the approved O&M manual or as otherwise approved by Ecology.

If a Permittee contemplates a reduction in the level of treatment that would cause a violation of permit discharge limits on a short-term basis for any reason, and such reduction cannot be avoided, the Permittee must:

1. Give written notification to Ecology, if possible, thirty (30) days prior to such activities.
2. Detail the reasons for, length of time of, and the potential effects of the reduced level of treatment.

This notification does not relieve the Permittee of its obligations under this permit.

S5.D. Electrical power failure

The Permittee must ensure that adequate safeguards prevent the discharge of untreated wastes or wastes not treated in accordance with the requirements of this permit during electrical power failure at the treatment plant and/or sewage lift stations. Adequate safeguards include, but are not limited to, alternate power sources, standby generator(s), or retention of inadequately treated wastes.

The Permittee must maintain Reliability Class II (EPA 430-99-74-001) at the wastewater treatment plant. Reliability Class II requires a backup power source sufficient to operate all vital components and critical lighting and ventilation during peak wastewater flow conditions. Vital components used to support the secondary processes (i.e., mechanical aerators or aeration basin air compressors) need not be operable to full levels of treatment, but must be sufficient to maintain the biota.

S5.E. Prevent connection of inflow

The Permittee must strictly enforce its sewer ordinances and not allow the connection of inflow (roof drains, foundation drains, etc.) to the sanitary sewer system.

S5.F. Bypass procedures

A bypass is the intentional diversion of waste streams from any portion of a treatment facility. This permit prohibits all bypasses except when the bypass is for essential maintenance, as authorized in special condition S5.F.1, or is approved by Ecology as an anticipated bypass following the procedures in S5.F.2.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions

This permit allows bypasses for essential maintenance of the treatment system when necessary to ensure efficient operation of the system. The Permittee may bypass the treatment system for essential maintenance only if doing so does not cause violations of effluent limits. The Permittee is not required to notify Ecology when bypassing for essential maintenance. However the Permittee must comply with the monitoring requirements specified in special condition S2.B.

2. Anticipated bypasses for non-essential maintenance

Ecology may approve an anticipated bypass under the conditions listed below. This permit prohibits any anticipated bypass that is not approved through the following process.

a. If a bypass is for non-essential maintenance, the Permittee must notify Ecology, if possible, at least ten (10) days before the planned date of bypass. The notice must contain:

- A description of the bypass and the reason the bypass is necessary.
- An analysis of all known alternatives which would eliminate, reduce, or mitigate the potential impacts from the proposed bypass.
- A cost-effectiveness analysis of alternatives.
- The minimum and maximum duration of bypass under each alternative.
- A recommendation as to the preferred alternative for conducting the bypass.
- The projected date of bypass initiation.
- A statement of compliance with SEPA.
- A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
- Details of the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process. The project-specific engineering report as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.

c. Ecology will determine if the Permittee has met the conditions of special condition S5.F.2 a and b and consider the following prior to issuing a determination letter, an administrative order, or a permit modification as appropriate for an anticipated bypass:

- If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.
- If the bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
- If feasible alternatives to the bypass exist, such as:
  - The use of auxiliary treatment facilities.
  - Retention of untreated wastes.
  - Stopping production.
  - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance.
  - Transport of untreated wastes to another treatment facility.

S5.G. Operations and maintenance (O&M) manual

a. O&M manual submittal and requirements

The Permittee must:

1. Review the O&M Manual at least annually.
2. Submit to Ecology for review and approval substantial changes or updates to the O&M Manual whenever it incorporates them into the manual.
3. Keep the approved O&M Manual at the permitted facility.
4. Follow the instructions and procedures of this manual.

b. O&M manual components

In addition to the requirements of WAC 173-240-080(1) through (5), the O&M manual must be consistent with the guidance in Table G1-3 in the *Criteria for Sewage Works Design* (Orange Book), 2008. The O&M manual must include:

1. Emergency procedures for cleanup in the event of wastewater system upset or failure.

2. A review of system components which if failed could pollute surface water or could impact human health. Provide a procedure for a routine schedule of checking the function of these components.
3. Wastewater system maintenance procedures that contribute to the generation of process wastewater.
4. Reporting protocols for submitting reports to Ecology to comply with the reporting requirements in the discharge permit.
5. Any directions to maintenance staff when cleaning or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine).
6. The treatment plant process control monitoring schedule.
7. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.

S6. Pretreatment

S6.A. General requirements

1. The Permittee must implement the Industrial Pretreatment Program in accordance with King County Code 28.84.060 and 28.82 as amended by King County Ordinance No. 11963 on January 1, 1996 and Ordinance No. 16929 on September 30, 2010; legal authorities, policies, procedures, and financial provisions described in the Permittee's approved pretreatment program submittal entitled "Industrial Pretreatment Program" and dated April 27, 1981; any approved revisions thereto; and the General Pretreatment Regulations (40 CFR Part 403), including any revisions to 40 CFR Part 403. At a minimum, the Permittee must undertake the following pretreatment implementation activities:
   a. Enforce categorical pretreatment standards under Section 307(b) and (c) of the Federal Clean Water Act (hereinafter, the Act), prohibited discharge standards as set forth in 40 CFR 403.5, local limits, or state standards, whichever are most stringent or apply at the time of issuance or modification of a local industrial waste discharge permit. Locally derived limits are defined as pretreatment standards under Section 307(d) of the Act and are not limited to categorical industrial facilities.
   b. Issue industrial waste discharge permits to all significant industrial users [SIUs, as defined in 40 CFR 403.3(v)(i)(ii)] contributing to the treatment system, including those from other jurisdictions. Industrial waste discharge permits must contain, as a minimum, all the requirements of 40 CFR 403.8 (f)(l)(iii). The Permittee must coordinate the permitting process with Ecology regarding any industrial facility that may possess a State Waste Discharge Permit issued by Ecology. Once issued, an industrial waste discharge permit takes precedence over a state-issued waste discharge permit.

c. Maintain and update, as necessary, records identifying the nature, character, and volume of pollutants contributed by industrial users to the POTW. The Permittee must maintain records for at least a three-year period.

d. Perform inspections, surveillance, and monitoring activities on industrial users to determine or confirm compliance with pretreatment standards and requirements. The Permittee must conduct a thorough inspection of SIUs annually. The Permittee must conduct regular local monitoring of SIU wastewaters commensurate with the character and volume of the wastewater but not less than once per year per SIU. If an SIU qualifies for reduced monitoring under 40 CFR 403.12(e)(3) (Middle Tier Categorical Industrial Users), inspection and monitoring must be conducted no less frequently than once every 2 years. The Permittee must collect and analyze samples in accordance with 40 CFR Part 403.12(b)(5)(ii)-(v) and 40 CFR Part 136.

e. Enforce and obtain remedies for noncompliance by any industrial users with applicable pretreatment standards and requirements. Once it identifies violations, the Permittee must take timely and appropriate enforcement action to address the noncompliance. The Permittee's action must follow its enforcement response procedures and any amendments, thereof.

f. Publish, at least annually in the largest daily newspaper in the Permittee's service area, a list of all non-domestic users which, at any time in the previous 12 months, were in significant noncompliance as defined in 40 CFR 403.8(f)(2)(vii).

g. If the Permittee elects to conduct sampling of an SIU's discharge in lieu of requiring user self-monitoring, it must satisfy all requirements of 40 CFR Part 403.12. This includes monitoring and record keeping requirements of Sections 403.12(g) and (o). For SIUs subject to categorical standards (CIUs), the Permittee may either complete baseline and initial compliance reports for the CIU (when required by 403.12(b) and (d)) or require these of the CIU. The Permittee must ensure that it provides SIUs the results of sampling in a timely manner, inform SIUs of their right to sample, their obligations to report any sampling they do, to respond to non-compliance, and to submit other notifications. These include a slug load report (403.12(f)), notice of changed discharge (403.12(j)), and hazardous waste notifications (403.12(p)). If sampling for the SIU, the Permittee must not sample less than once in every six-month period unless the Permittee's approved program includes procedures for reduction of monitoring for Middle-Tier or Non-Significant Categorical Users per 403.12(e)(2) and (3) and those procedures have been followed.

h. Develop and maintain a data management system designed to track the status of the Permittee's industrial user inventory, industrial user discharge characteristics, and compliance status.

i. Maintain adequate staff, funds, and equipment to implement its pretreatment program.

j. Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by commercial or industrial users within these jurisdictions. These contracts or agreements must identify the agency responsible to perform the various implementation and enforcement activities in the contributing jurisdiction. To the extent that there are contributing jurisdictions in which the Permittee has legal authority which is inadequate with respect to the requirements of 40 CFR 403.8(f)(1), the Permittee must enter into a joint powers agreement that specifies the specific roles, responsibilities, and pretreatment requirements of each jurisdiction and enables the Permittee to enforce its pretreatment regulations within the contributing jurisdiction(s).

k. The Permittee must evaluate whether each new SIU needs a plan to control Slug Discharges within 1 year of designating the entity as a SIU. For purposes of this subsection, a Slug Discharge is any Discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch Discharge, which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the permittee's regulations, local limits or permit conditions. The Permittee must make this evaluation available to Ecology upon request. The Permittee must required each SIU to immediately notify them of any changes at its facility affecting the potential for a Slug Discharge. If the Permittee decides that a slug control plan is needed, the plan shall contain, at a minimum, the following elements:

i. Description of discharge practices, including non-routine batch Discharges;

ii. Description of stored chemicals;

iii. Procedures for immediately notifying the POTW of Slug Discharges, including any Discharge that would violate a prohibition under 40 CFR 403.5(b) with procedures for follow-up written notification within five days;

2. If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response. Whenever Ecology determines that any waste source contributes pollutants to the Permittee's treatment works in violation of Section (b), (c), or (d) of Section 307 of the Act, and the Permittee has not taken adequate corrective action, Ecology will notify the Permittee of this determination. If the Permittee fails to take appropriate enforcement action within 30 days of this notification, Ecology may take appropriate enforcement action against the source or the Permittee.

3. Pretreatment Report

The Permittee must provide to Ecology an annual report that briefly describes its program activities during the previous calendar year.

The Permittee must submit the annual report to Ecology by April 30th of each year. The report must include the following information:

a. An updated non-domestic inventory.

b. Results of wastewater sampling at the treatment plant conducted to support local limit development, if completed during the reporting year. The Permittee must calculate removal rates for each pollutant and evaluate the adequacy of the existing local limits in prevention of treatment plant interference, pass through of pollutants that could affect receiving water quality, and sludge contamination.

c. Status of program implementation, including:

i. Any substantial modifications to the pretreatment program as originally approved by Ecology, including staffing and funding levels.

ii. Any interference, upset, or permit violations experienced at the POTW that are directly attributable to wastes from industrial users.

iii. Listing of industrial users inspected and/or monitored, and a summary of the results.

iv. Listing of industrial users scheduled for inspection and/or monitoring for the next year, and expected frequencies.

v. Listing of industrial users notified of promulgated pretreatment standards and/or local standards as required in 40 CFR 403.8(f)(2)(iii). The list must indicate which industrial users are on compliance schedules and the final date of compliance for each.

vi. Listing of industrial users issued industrial waste discharge permits.

vii. Planned changes in the approved local pretreatment program. (See Subsection A.7. below)

d. Status of compliance activities, including:

i. Listing of industrial users that failed to submit baseline monitoring reports or any other reports required under 40 CFR 403.12 and in the Permittee's pretreatment program, dated April 27, 1981.

ii. Listing of industrial users that were at any time during the reporting period not complying with federal, state, or local pretreatment standards or with applicable compliance schedules for achieving those standards, and the duration of such noncompliance.

iii. Summary of enforcement activities and other corrective actions taken or planned against non-complying industrial users. The Permittee must supply to Ecology a copy of the public notice of facilities that were in significant noncompliance.

4. The Permittee must request and obtain approval from Ecology before making any significant changes to the approved local pretreatment program. The Permittee must follow the procedure in 40 CFR 403.18 (b) and (c).

S6.B. Local limit development

As sufficient data become available, the Permittee, in consultation with Ecology, must reevaluate its local limits in order to prevent pass through or interference. If Ecology determines that any pollutant present causes pass through or interference, or exceeds established sludge standards, the Permittee must establish new local limits or revise existing local limits as required by 40 CFR 403.5. Ecology may also require the Permittee to revise or establish local limits for any pollutant discharged from the POTW that has a reasonable potential to exceed the Water Quality Standards, Sediment Standards, or established effluent limits, or causes whole effluent toxicity. Ecology makes this determination in the form of an Administrative Order.

Ecology may modify this permit to incorporate additional requirements relating to the establishment and enforcement of local limits for pollutants of concern. Any permit modification is subject to formal due process procedures under state and federal law and regulation.

S7. Solid wastes

S7.A. Solid waste handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

S7.B. Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee must apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

S8. Acute toxicity

S8.A. Testing when there is no permit limit for acute toxicity

The Permittee must:

1. Conduct acute toxicity testing on final effluent during the third quarter of 2019 and the first quarter of 2020.
2. Conduct acute toxicity testing on a series of at least five concentrations of effluent, including 100% effluent and a control.
3. Submit the results to Ecology with the permit renewal application.
4. Use each of the following species and protocols for each acute toxicity test:

Acute Toxicity Tests	Species	Method
Fathead minnow 96-hour static-renewal test	*Pimephales promelas*	EPA-821-R-02-012
Daphnid 48-hour static test	*Ceriodaphnia dubia, Daphnia pulex,* or *Daphnia magna*	EPA-821-R-02-012

S8.B. Sampling and reporting requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain toxicity data, bench sheets, and reference toxicant results for test methods. In addition, the Permittee must submit toxicity test data in electronic format (CETIS export file preferred) for entry into Ecology's database.
2. The Permittee must collect 24-hour composite effluent samples for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Subsection C and the Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Section A or pristine natural water of sufficient quality for good control performance.
6. The Permittee must conduct whole effluent toxicity tests on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the acute critical effluent concentration (ACEC). The ACEC equals 1.12% effluent.
8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing must comply with the acute statistical power standard of 29% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S9. Chronic toxicity

S9.A. Testing when there is no permit limit for chronic toxicity

The Permittee must:

1. Conduct acute toxicity testing on final effluent during fourth quarter of 2019 and the second quarter of 2020.
2. Conduct chronic toxicity testing on a series of at least five concentrations of effluent and a control. This series of dilutions must include the acute critical effluent concentration (ACEC). The ACEC equals 1.12% effluent. The series of dilutions should also contain the CCEC of 0.15% effluent.
3. Compare the ACEC to the control using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001.
4. Submit the results to Ecology with the permit renewal application.
5. Perform chronic toxicity tests with all of the following species and the most recent version of the following protocols:

Saltwater Chronic Test	Species	Method
Topsmelt survival and growth	*Atherinops affinis*	EPA/600/R-95/136
Mysid shrimp survival and growth	*Americamysis bahia* (formerly *Mysidopsis bahia*)	EPA-821-R-02-014

S9.B. Sampling and reporting requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain toxicity data, bench sheets, and reference toxicant results for test methods. In addition, the Permittee must submit toxicity test data in electronic format (CETIS export file preferred) for entry into Ecology's database.
2. The Permittee must collect 24-hour composite effluent samples for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Section C and the Ecology Publication no. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.

5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Subsection C or pristine natural water of sufficient quality for good control performance.
6. The Permittee must conduct whole effluent toxicity tests on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the CCEC and the ACEC. The CCEC and the ACEC may either substitute for the effluent concentrations that are closest to them in the dilution series or be extra effluent concentrations. The CCEC equals 0.15% effluent. The ACEC equals 1.12% effluent.
8. All whole effluent toxicity tests that involve hypothesis testing must comply with the chronic statistical power standard of 39% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S10. Application for permit renewal or modification for facility changes

The Permittee must submit an application for renewal of this permit by July 31, 2021.

The Permittee must also submit a new application or addendum at least one hundred eighty (180) days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

General Conditions

G1. Signatory requirements

1. All applications, reports, or information submitted to Ecology must be signed and certified.

   a. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

      - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or

      - The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

   b. In the case of a partnership, by a general partner.

   c. In the case of sole proprietorship, by the proprietor.

   d. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

   Applications for permits for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity shall be submitted by the public entity.

2. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to Ecology.

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to authorization. If an authorization under paragraph G1.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G1.2, above, must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section must make the following certification:

   "I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G2. Right of inspection and entry

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

1. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
2. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
3. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
4. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. Permit actions

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the Permittee) or upon Ecology's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 40 CFR 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

1. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
   a. Violation of any permit term or condition.
   b. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
   c. A material change in quantity or type of waste disposal.
   d. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination.

e. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit.

f. Nonpayment of fees assessed pursuant to RCW 90.48.465.

g. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.

2. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:

a. A material change in the condition of the waters of the state.

b. New information not available at the time of permit issuance that would have justified the application of different permit conditions.

c. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.

d. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.

e. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.

f. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.

g. Incorporation of an approved local pretreatment program into a municipality's permit.

3. The following are causes for modification or alternatively revocation and reissuance:

a. When cause exists for termination for reasons listed in 1.a through 1.g of this section, and Ecology determines that modification or revocation and reissuance is appropriate.

b. When Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G7) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

G4. Reporting planned changes

The Permittee must, as soon as possible, but no later than one hundred eighty (180) days prior to the proposed changes, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

1. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).

2. A significant change in the nature or an increase in quantity of pollutants discharged.

3. A significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. Plan review required

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with chapter 173-240 WAC. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G6. Compliance with other laws and statutes

Nothing in this permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. Transfer of this permit

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology.

1. Transfers by Modification

   Except as provided in paragraph (2) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

2. Automatic Transfers

   This permit may be automatically transferred to a new Permittee if:

   a. The Permittee notifies Ecology at least thirty (30) days in advance of the proposed transfer date.

   b. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.

   c. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G8. Reduced production for compliance

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G9. Removed substances

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G10. Duty to provide information

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G11. Other requirements of 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. Additional monitoring

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. Payment of fees

The Permittee must submit payment of fees associated with this permit as assessed by Ecology.

G14. Penalties for violating permit conditions

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars ($10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit may incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars ($10,000) for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G15. Upset

Definition – “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset.
2. The permitted facility was being properly operated at the time of the upset.
3. The Permittee submitted notice of the upset as required in Special Condition S3.F.
4. The Permittee complied with any remedial measures required under S3.F of this permit.

In any enforcement action the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. Property rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. Duty to comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. Toxic pollutants

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. Penalties for tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G20. Compliance schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than fourteen (14) days following each schedule date.

G21. Service agreement review

The Permittee must submit to Ecology any proposed service agreements and proposed revisions or updates to existing agreements for the operation of any wastewater treatment facility covered by this permit. The review is to ensure consistency with chapters 90.46 and 90.48 RCW as required by RCW 70.150.040(9). In the event that Ecology does not comment within a thirty-day (30) period, the Permittee may assume consistency and proceed with the service agreement or the revised/updated service agreement.

Appendix A

LIST OF POLLUTANTS WITH ANALYTICAL METHODS, DETECTION LIMITS AND QUANTITATION LEVELS

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table for permit and application required monitoring unless:

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136.

If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

If the Permittee is unable to obtain the required DL and QL in its effluent due to matrix effects, the Permittee must submit a matrix-specific detection limit (MDL) and a quantitation limit (QL) to Ecology with appropriate laboratory documentation.

Ecology added this appendix to the permit in order to reduce the number of analytical "non-detects" in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost.

The lists below include conventional pollutants (as defined in CWA section 502(6) and 40 CFR Part 122.), some toxic or priority pollutants as defined in CWA section 307(a)(1) and listed in 40 CFR Part 122 Appendix D, 40 CFR Part 401.15 and 40 CFR Part 423 Appendix A), and nonconventionals. 40 CFR Part 122 Appendix D (Table V) identifies toxic pollutants and hazardous substances which are required to be reported by dischargers if expected to be present. This permit Appendix A list does not include those parameters.

CONVENTIONAL POLLUTANTS

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL) [2] *µg/L unless specified*
Biochemical Oxygen Demand		SM5210-B		2 mg/L
Biochemical Oxygen Demand, Soluble		SM5210-B [3]		2 mg/L
Fecal Coliform		SM 9221E,9222	N/A	Specified in method - sample aliquot dependent
Oil and Grease (HEM) (Hexane Extractable Material)		1664 A or B	1,400	5,000
pH		SM4500-H^+ B	N/A	N/A
Total Suspended Solids		SM2540-D		5 mg/L

NONCONVENTIONAL POLLUTANTS

Pollutant & CAS No. (if available)	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] µg/L unless specified	Quantitation Level (QL)[2] µg/L unless specified
Alkalinity, Total		SM2320-B		5 mg/L as CaCO3
Aluminum, Total	7429-90-5	200.8	2.0	10
Ammonia, Total (as N)		SM4500-NH3-B and C/D/E/G/H		20
Barium Total	7440-39-3	200.8	0.5	2.0
BTEX (benzene +toluene + ethylbenzene + m,o,p xylenes)		EPA SW 846 8021/8260	1	2
Boron, Total	7440-42-8	200.8	2.0	10.0
Chemical Oxygen Demand		SM5220-D		10 mg/L

NONCONVENTIONAL POLLUTANTS

Pollutant & CAS No. (if available)	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] µg/L unless specified	Quantitation Level (QL)[2] µg/L unless specified
Chloride		SM4500-Cl B/C/D/E and SM4110 B		Sample and limit dependent
Chlorine, Total Residual		SM4500 Cl G		50.0
Cobalt, Total	7440-48-4	200.8	0.05	0.25
Color		SM2120 B/C/E		10 color units
Dissolved oxygen		SM4500-OC/OG		0.2 mg/L
Flow		Calibrated device		
Fluoride	16984-48-8	SM4500-F E	25	100
Hardness, Total		SM2340B		200 as CaCO3
Iron, Total	7439-89-6	200.7	12.5	50
Magnesium, Total	7439-95-4	200.7	10	50
Manganese, Total	7439-96-5	200.8	0.1	0.5
Molybdenum, Total	7439-98-7	200.8	0.1	0.5
Nitrate + Nitrite Nitrogen (as N)		SM4500-NO3- E/F/H		100
Nitrogen, Total Kjeldahl (as N)		SM4500-N_{org}B/C and SM4500NH_3-B/C/D/EF/G/H		300
NWTPH Dx [4]		Ecology NWTPH Dx	250	250
NWTPH Gx [5]		Ecology NWTPH Gx	250	250
Phosphorus, Total (as P)		SM 4500 PB followed by SM4500-PE/PF	3	10
Salinity		SM2520-B		3 practical salinity units or scale (PSU or PSS)
Settleable Solids		SM2540 -F		Sample and limit dependent
Soluble Reactive Phosphorus (as P)		SM4500-P E/F/G	3	10
Sulfate (as mg/L SO_4)		SM4110-B		0.2 mg/L
Sulfide (as mg/L S)		SM4500-S^2F/D/E/G		0.2 mg/L
Sulfite (as mg/L SO_3)		SM4500-SO3B		2 mg/L
Temperature (max. 7-day avg.)		Analog recorder or use micro-recording devices known as thermistors		0.2º C
Tin, Total	7440-31-5	200.8	0.3	1.5
Titanium, Total	7440-32-6	200.8	0.5	2.5
Total Coliform		SM 9221B, 9222B, 9223B	N/A	Specified in method - sample aliquot dependent
Total Organic Carbon		SM5310-B/C/D		1 mg/L
Total dissolved solids		SM2540 C		20 mg/L

PRIORITY POLLUTANTS	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)[1] *µg/L unless specified*	Quantitation Level (QL) [2] *µg/L unless specified*
METALS, CYANIDE & TOTAL PHENOLS					
Antimony, Total	114	7440-36-0	200.8	0.3	1.0
Arsenic, Total	115	7440-38-2	200.8	0.1	0.5
Beryllium, Total	117	7440-41-7	200.8	0.1	0.5
Cadmium, Total	118	7440-43-9	200.8	0.05	0.25
Chromium (hex) dissolved	119	18540-29-9	SM3500-Cr C	0.3	1.2
Chromium, Total	119	7440-47-3	200.8	0.2	1.0
Copper, Total	120	7440-50-8	200.8	0.4	2.0
Lead, Total	122	7439-92-1	200.8	0.1	0.5
Mercury, Total	123	7439-97-6	1631E	0.0002	0.0005
Nickel, Total	124	7440-02-0	200.8	0.1	0.5
Selenium, Total	125	7782-49-2	200.8	1.0	1.0
Silver, Total	126	7440-22-4	200.8	0.04	0.2
Thallium, Total	127	7440-28-0	200.8	0.09	0.36
Zinc, Total	128	7440-66-6	200.8	0.5	2.5
Cyanide, Total	121	57-12-5	335.4	5	10
Cyanide, Weak Acid Dissociable	121		SM4500-CN I	5	10
Cyanide, Free Amenable to Chlorination (Available Cyanide)	121		SM4500-CN G	5	10
Phenols, Total	65		EPA 420.1		50

1. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.

2. Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1, 2, or 5) x 10^n, where n is an integer (64 FR 30417).
   ALSO GIVEN AS:
   The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

3. Soluble Biochemical Oxygen Demand method note: First, filter the sample through a Millipore Nylon filter (or equivalent) - pore size of 0.45-0.50 um (prep all filters by filtering 250 ml of laboratory grade deionized water through the filter and discard). Then, analyze sample as per method 5210-B.

4. NWTPH Dx - Northwest Total Petroleum Hydrocarbons Diesel Extended Range – see http://www.ecy.wa.gov/biblio/97602.html

5. NWTPH Gx - Northwest Total Petroleum Hydrocarbons Gasoline Extended Range – see http://www.ecy.wa.gov/biblio/97602.html