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POLLUTION CONTROL HEARINGS BOARD

FOR THE STATE OF WASHINGTON

PUGET SOUNDKEEPER ALLIANCE, Petitioner, vs. WASHINGTON STATE DEPARTMENT OF ECOLOGY, Respondent,	Case No. NOTICE OF APPEAL

1. Identity of Appealing Parties and Representatives

The appealing party is

Puget Soundkeeper Alliance
130 Nickerson St., Ste. 107
Seattle, WA 98109
(206) 297-7002

The representative(s) of the appealing party are

Earthjustice
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2. Identification of Other Parties

The respondent in this appeal is the Washington State Department of Ecology ("Ecology").

3. The Decision Under Appeal

This is an appeal of the West Point Wastewater Treatment Plant and Combined Sewer Overflows Permit No. WA0029181 ("West Point Permit"), a National Pollutant Discharge Elimination System ("NPDES") and State Waste Discharge Individual Permit, issued on April 29, 2024. A copy of this permit is attached.

4. Short and Plain Statement Showing Grounds for Appeal

The West Point Permit is unlawful because it does not meet the requirements or intent of the federal Clean Water Act, applicable regulations promulgated by the Environmental Protection Agency, Washington State water pollution control law, and Ecology's regulations, set forth in more detail below. In violation of these various laws and regulations, the West Point Permit fails to include effluent limitations on all pollutants discharged by the facility, specifically the permit fails to impose effluent limitations on nutrient pollutants, nitrogen and phosphorus. As a result, the Permit fails to include effluent limitations that meet the requirements of applying All Known, Achievable, and Reasonable Technology ("AKART") and fails to include effluent limitations sufficient to ensure that discharges authorized by the Permit will not cause or contribute to violations of water quality standards, specifically for dissolved oxygen in Puget Sound.

5. Statement of Facts and Preliminary Identification of Issues

a. Statement of Facts and Background

i. Facts regarding nutrient pollutants and discharges.

Many, if not most, of the nation's marine ecosystems are polluted by excess nutrients. EPA, Nutrient Criteria Technical Guidance Manual: Estuarine and Coastal Waters [EPA Nutrient Guidance] at xvii and 1-1 (Oct. 2001). Furthermore, at least two-thirds of U.S. estuaries and marine coastal waters have been assessed as seriously degraded by chronic nutrient pollution (National Research Council 2000, Bricker et al. 2008). Nutrient pollution can cause an increase in harmful algal growth, which in turn can result in reduced or depleted levels of oxygen, an imbalanced ecosystem, significant public health risks, loss of critical habitat for beneficial aquatic life, greatly reduced biodiversity, and a general decline in fish and aquatic life—at both the population and individual organism scale. EPA Nutrient Guidance at 1-1 and 1-5., Burkholder and Gilber 2013 and references therein. Harmful algal "blooms" (outbreaks)—driven by these excess, anthropogenic nutrient loadings—have long been linked to major fish kills, significantly affecting local recreational, commercial, and tribal fisheries. Burkholder 1998, EPA Nutrient Guidance at 4. Blooms of some cyanobacterial species produce toxins that can cause disease and death of beneficial aquatic life and humans. Chorus and Bartram 1999, EPA Nutrient Guidance at 1-1. Depletion of dissolved oxygen can cause stress and death in bottom-dwelling organisms such as sessile, ecologically, and commercially important marine shellfish. Id.; see also, Ecology, South Puget Sound Dissolved Oxygen Study Interim Data Report (Dec. 2008) at 13; Ecology, Puget Sound and Straits Dissolved Oxygen Assessment (2014) at 11. Nutrient pollution-driven oxygen depletion in the Sound is killing forage fish that are important to salmon, including Chinook salmon listed as threatened under the Endangered Species Act.

Ecology has also noted that nutrient pollution increases Puget Sound's sensitivity to the effects of ocean acidification.

Chronic nutrient pollution and its related array of adverse impacts as described above are present in Puget Sound.[1] Discharges of excess nutrients to Puget Sound from domestic wastewater treatment plants (WWTP), including the West Point facility, are contributing to, if not outright causing, low dissolved oxygen levels in Puget Sound and the rest of the Salish Sea.[2]

The West Point Permit regulates and authorizes discharges of domestic wastewater from King County's "largest [WWTP] facility in [Washington] state."[3] West Point's individual wastewater permit does not contain limits or other conditions for the discharge of nutrient pollutants. Fact Sheet for NPDES Permit WA0029181 at 82.

ii. Legal background.

The Clean Water Act and state law prohibit the discharge of any pollutant in any amount absent compliance with a NPDES permit. 33 U.S.C. § 1311(a), RCW 90.48.080, and WAC 173-220-020.

State law imposes requirements on discharges authorized by NPDES permits. State statutes require that permits include and apply "all known, available, and reasonable technology"

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[1] *See* University of Washington, Puget Sound Institute, https://www.eopugetsound.org/magazine/is/nutrients and https://www.pugetsoundinstitute.org/2017/10/puget-sounds-growing-nutrient-problem/.
[2] Department of Ecology, Puget Sound Nutrient General Permit, https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Nutrient-Permit.
[3] Department of Ecology, West Point Treatment Plant water quality permit now issued, https://ecology.wa.gov/blog/april-2024/west-point-treatment-plant-water-quality-permit-now-issued.

or "AKART" to control pollutants in wastewater or other discharges authorized by NPDES permits, and that in no event shall the discharge of toxicants be allowed to violate Washington water quality standards. RCW 90.48.010 and RCW 90.48.520.[4] To implement these state statutory directives, Ecology's rules require that (1) all discharge permits be conditioned so they meet water quality standards, and (2) no permit can be issued that causes, or contributes to, a violation of water quality standards. WAC 173-201A-510(1) and 173-220-130. Water quality-driven effluent limits are required in permits if the discharge authorized by the permit will cause or has the reasonable potential to cause a violation of a water quality standards or will contribute to an existing violation of a water quality standard. WAC 173-220-130(b).

Similarly, the Clean Water Act "unquestionably provides that all applicable effluent limitations must be included in each NPDES permit." *Waterkeeper Alliance, Inc. v. EPA*, 399 F. 3d 486, 502 (2nd Cir. 2005) (citing 33 U.S.C. §§ 1311(a), 1311(b), 1342(a)). As the Second Circuit explained, "[r]egardless of the issuer, every NPDES permit is statutorily required to set forth, at the very least, 'effluent limitations,'" *id.* At 491, and "permits authorizing the discharge of pollutants may issue only where such permits ensure that every discharge of pollutants will comply with all applicable effluent limitations and standards," *id.*at 498 (emphasis added); *see also Am. Paper Inst., Inc. v. EPA,* 996 F.2d 346, 349 (D.C. Cir. 1993) (noting that the Clean Water Act "mandates that every permit contain [inter alia] effluent limitations that reflect that pollution reduction achievable by using technologically practicable controls"). Clean Water Act

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[4] Washington law also provides that discharge of any pollutant is prohibited where it will degrade the water. RCW 90.54.020(3).

regulations further require that any NPDES permit include pollutant effluent limits sufficient to ensure that the discharges authorized by the permit do not cause or contribute to a violation of water quality standards. 40 C.F.R. § 122.44(d).

The Clean Water Act, federal rules, and state law require the West Point Permit to include specific nutrient effluent limits, yet the Permit includes no effluent limits for nutrients.

Reliance on provisions of other documents, which cannot be effectuated through enforcement of the instant permit, do not comport with the law that no permit may issue unless the permit includes effluent limitations that require and ensure compliance with AKART and water quality standards. Moreover, the Puget Sound Nutrient General Permit (PSNGP) also fails to include effluent limits for nutrients and most of the requirements of that permit are not currently in effect. *See* Stipulation for Partial Stay of Puget Sound Nutrient General Permit, PCHM No. 21-082c (Jan. 14, 2022) (staying, *inter* alia, PSNGP Conditions S3 (Compliance with Standards) and Conditions S4.D.2 and S5.D2 (corrective action requirements)—in their entirety pending the Board's resolution of the appeal which is itself stayed).

The Board has yet to resolve the PSNGP appeals and there is no deadline in sight.[5] The PSNGP's substantive provisions are stayed, and their fate is uncertain. Ecology cannot rely on provisions that have no binding effect or known implementation date to meet statutory requirements for pollution control. *See Wash. State Dairy Fed'n v. Dep't of Ecology*, 18 Wn. App. 2d 259, 279-81, 490 P.3d 290, 301 (2021).

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[5] Further, one of the issues in the PSNGP appeal concerns whether nutrients can be separately regulated in a general permit as opposed to individual permits such as the one at issue here. That issue has yet to be resolved.

Even if the PSNGP were fully in effect, as explained in Soundkeeper's timely and ongoing appeal of the PSNGP, it fails to include effluent limitations for nutrients that even Ecology acknowledges would be necessary to control nutrient pollution to the Sound in a manner protective of water quality. The lack of specific, enforceable limits in the PSNGP means the PSNGP does not meet AKART requirements, will not limit ongoing pollution, will not prevent the pollution loading from increasing, will allow West Point discharges to cause and/or contribute to violations of water quality standards in Puget Sound and will not begin to mitigate or reverse the ongoing damages to the Sound and its communities caused by excess nutrients; rather, it will allow the problems to continue and worsen. The PSNGP is not a substitute for the legal requirements for the West Point Permit outlined above.

Currently, no nutrient effluent limitations apply to West Point. Ecology must include numeric effluent limitations for nutrients in West Point's individual permit to ensure water quality is protected.

b. Preliminary Statement of Issues on Appeal

1) The West Point Permit's failure to impose numeric effluent limits on the permittee's discharge of nutrient pollutants to Puget Sound violates the requirements of Washington law RCW 90.48.520; WAC 173-201A-510(1) and WAC 173-226-070(2), (3), and (6), and *Wash. State Dairy Fed'n*, 18 Wn. App. 2d at *296-97, to include limits as necessary to ensure discharges authorized by the Permit do not cause or contribute to a violation of a water quality standard.

2) The West Point Permit's failure to impose numeric effluent limits on the permittee's discharge of nutrient pollutants to Puget Sound violate the Clean Water Act and applicable federal regulations 40 C.F.R. §§ 122.4(a) and (d) to include limits as necessary to

ensure discharges authorized by the Permit do not cause or contribute to a violation of a water quality standard.

3) Ecology's failure to determine and require AKART in the West Point Permit allows impermissible self-regulation contrary to the requirements of the Clean Water Act, *Envt'l Def. Ctr. Inc. v. EPA*, 344 F.3d 832, 855-56 (9th Cir. 2003); *Puget Soundkeeper All. v. Ecology*, PCHB Nos. 07-021 et al., 2008 WL 5510413 at *30, ¶ 29.

4) The West Point Permit fails to ensure that the nutrient discharges authorized by it will not further degrade Puget Sound in violation of the Clean Water Act and 40 C.F.R. § 131.12 and WAC 173-201A-300, 310.

5) The West Point Permit's failure to impose numeric effluent limits of 3 mg/L nitrogen and 0.3 mg/L phosphorus on the permittee's discharge of nutrient pollutants to Puget Sound violates the requirements to impose AKART on all pollution discharges under Washington law, RCW 90.48.010; 90.48.520; 90.54.020; WAC 173-226-070; and *Wash. State Dairy Fed'n v. Washington*, 18 Wn. App. 2d 259, 274-79, 490 P.3d 290 (2021).

6) The West Point Permit fails to require adequate assessment of compliance by requiring less than weekly monitoring for phosphorus, total nitrogen, and organic nitrogen.

6. Relief Requested

Appellant requests that the Board remand the West Point Permit to Ecology and order Ecology to modify the West Point Permit to be consistent with applicable legal requirements, to correct defects, to impose stringent numeric effluent limits on nitrogen and phosphorus that meet AKART and that ensure nutrient discharges do not cause or contribute to violations of water quality standards, and to impose weekly monitoring requirements for all nutrient pollutants. The West Point Permit should otherwise remain in force and in effect during this remand period.

DATED: May 28, 2024.

s/Janette K. Brimmer

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CERTIFICATE OF SERVICE

I hereby certify that on this 28th day of May, 2024, the foregoing NOTICE OF APPEAL was filed electronically through the CMS system and served on the following parties:

Via FedEx
Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503
Email: ecologyappeals@ecy.wa.gov

King County Wastewater Treatment Division
West Point Wastewater Treatment Plant and
Combined Sewer Overflow System
King Street Center, KSC-NR-5501
201 South Jackson Street
Seattle, WA 98104-3855

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s/ Diana Brechtel
Diana Brechtel, Litigation Paralegal

Issuance Date: 04/29/2024
Effective Date: 06/01/2024
Expiration Date: 05/31/2029

National Pollutant Discharge Elimination System
Waste Discharge Permit No. WA0029181

State of Washington
DEPARTMENT OF ECOLOGY
Northwest Region Office
PO Box 330316,
Shoreline, WA 98133-9716

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 and Combined Sewer Overflow System

King Street Center, KSC-NR-5501
201 South Jackson Street
Seattle, WA 98104-3855

is authorized to discharge in accordance with the Special and General Conditions that follow. Table 1 on the following page lists treatment facilities covered by this permit.

Rachel McCrea

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

Table 1 – Facilities regulated by this permit

Facility Name (outfall)	Plant Address	Treatment Type	Receiving Water
West Point Wastewater Treatment Plant (001)	1400 Discovery Park Blvd, Seattle, WA	Secondary, Activated Sludge with Chlorine Disinfection	Puget Sound
Elliott West CSO Treatment Plant (027b)	545 Elliott Ave W Seattle, WA	Primary Settling with Chlorine Disinfection	Elliott Bay
Henderson/MLK CSO Treatment Plant (044)	Outlet Regulator: 9829 42nd Ave S Seattle, WA	Primary Settling with Chlorine Disinfection	Duwamish Waterway
Carkeek CSO Treatment Plant (046)	1201 NW Carkeek Park Rd, Seattle, WA	Primary Settling with Chlorine Disinfection	Puget Sound
Alki CSO Treatment Plant (051)	3380 Beach Drive SW Seattle, WA	Primary Settling with Chlorine Disinfection	Puget Sound
Georgetown CSO Treatment Plant (058)	6185 4th Ave S Seattle, WA	Enhanced Primary Sedimentation with UV Disinfection	Duwamish Waterway
Various CSO Outfalls (38 total)	Various locations, see table 32	Untreated	See Table 32

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Tables

Summary of Permit Report Submittals

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

Table 2 – Summary of Permit Report Submittals

Permit Section	Submittal	Frequency	First Submittal Date
S3.A.4.a	Monthly Discharge Monitoring Report (DMR)	Monthly	July 15, 2024
S3.A.4.b	Quarterly DMR	Quarterly	October 15, 2024
S3.A.4.c	Annual DMR	Annual	January 15, 2025
S3.A.4.d	Georgetown CSO treatment facility Initial Characterization (additional details in Table 26)	Monthly during the first four wet months	November 15, 2024
S3.F	Reporting Permit Violations	As necessary	
S3.F.e	Quarterly Violation Summary Report	Quarterly	October 15, 2024
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	March 1, 2028
S5.F	Bypass Notification	As necessary	
S5.G	Operations and Maintenance Manual Update	As necessary	
S6.A.4	Pretreatment Report	Annual	April 30, 2025
S6.A.5	Request to make changes to pretreatment program	As necessary	
S6.E.1	Updated Industrial User Inventory – PFAS	1/permit cycle	April 30, 2027 (with annual report)
S8.A	Spill Control Plan Update Submittal	As necessary	
S9.A	Sediment Sampling and Analysis Plan – West Point	1/permit cycle	April 1, 2026
S9.B	Sediment Data Report – West Point	1/permit cycle	April 15, 2027
S9.C.1	Sediment Sampling and Analysis Plan – Alki and Carkeek CSO treatment facility Outfalls	1/permit cycle	April 1, 2026
S9.C.2	Sediment Sampling and Analysis Plan – CSO outfalls 013, 045, and 057	1/permit cycle, if needed	June 1, 2026, if needed
S9.D.1	Sediment Data Report – CSO outfalls 013, 045, and 057 (existing work)	1/permit cycle	December 15, 2024
S9.D.2	Sediment Data Report – Alki and Carkeek CSO treatment facility Outfalls and CSO Outfalls 013, 045, and 057 (new study, if needed)	1/permit cycle	April 15, 2028
S11.C.d	CSO Outfall Corrective Actions Report	As necessary	See permit condition for submittal timeline.

Permit Section	Submittal	Frequency	First Submittal Date
S11.D.b	Combined Sewer Overflow Report	Annually	July 31, 2024
S11.E	CSO Reduction Construction Plans	As necessary	
S11.F	CSO Reduction Plan Update	1/permit cycle	December 1, 2028
S12	CSO Solids Sampling Report	1/permit cycle	December 31, 2024
S12	CSO Solids Study Plan (if needed)	1/permit cycle	April 1, 2028
S13	Acute Toxicity: Characterization Written Report (for testing completed by September 30, 2026, and March 31, 2027)	2/permit cycle	November 15, 2026 May 15, 2027
S14	Chronic Toxicity: Characterization Written Report (for testing completed by December 31, 2026, and June 31, 2027)	2/permit cycle	February 15, 2026 August 15, 2027
S15.A	Annual Progress Report for Elliott West Improvements	1/year	April 1, 2025
S15.A.1	Draft Engineering Report for Elliott West CSO Treatment Plant Improvements	1/permit cycle	June 30, 2024
S15.A.2	Final Engineering Report for Elliott West CSO Treatment Plant Improvement	1/permit cycle	June 30, 2025
S15.A.3	60% Draft Plan and Specifications for Elliott West CSO Treatment Plant Improvement	1/permit cycle	June 30, 2026
S15.A.4	90% Draft Plan and Specifications for Elliott West CSO Treatment Plant Improvement	1/permit cycle	June 30, 2027
S15.A.5	Final Plan and Specifications for Elliott West CSO Treatment Plant Improvement	1/permit cycle	December 31, 2027
S16	Henderson/MLK CSO Treatment Plant – Copper Reduction Assessment		November 1, 2028
S17	Application for Permit Renewal	1/permit cycle	December 1, 2028
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

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 West Point Wastewater Treatment Plant

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 limits in Table 3.

Table 3 – Effluent Limits: Outfall 001 – Latitude 47.66111° Longitude -122.44639°

Parameter	Average Monthly [a]	Average Weekly [b]
Carbonaceous Biochemical Oxygen Demand (5-day) ($CBOD_5$)	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 (TSS)	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
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 mL	400/100 mL
Parameter	**Average Monthly**	**Maximum Daily [d]**
Total Residual Chlorine	139 micrograms/liter (µg/L)	364 µg/L
Total PCBs [e]	0.065 µg/L	0.065 µg/L

Table 4 – Footnotes for Table 3

Footnote	Information
a	Average monthly means the highest allowable average of daily discharges over a calendar month. Calculate average values using the sum of all daily discharge values measured during a calendar month divided by the total number of sampling days. 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 the week divided by the number of sampling days. See Footnote c for bacteria calculations.
c	Ecology provides directions to calculate the monthly and the weekly geometric mean in Ecology's Information Manual for Wastewater Treatment Plant Operators, Publication Number 04-10-020 available at: https://apps.ecology.wa.gov/publications/SummaryPages/0410020.html.
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 or any 24-hour period that reasonably represents the calendar day for purposes of sampling. This does not apply to pH.
e	The Permittee must use EPA Method 608.3 for PCB compliance monitoring. Any detection using this method is a violation of this limit.

S1.B. Effluent limits for CSO Treatment Plants

Beginning on the effective date of this permit, the Permittee may intermittently discharge treated combined sewer overflows (CSO) from its five CSO treatment plants to the water bodies and locations listed in Tables 5 through 9, subject to compliance with the limits therein. The discharge of treated CSOs from these outfalls may only occur as a result of precipitation events. This permit prohibits the discharge of treated CSOs during dry weather.

Table 5 – Effluent Limits: Elliott West CSO Treatment Plant, Outfall 027b

Water body: Elliott Bay
Latitude 47.61755° Longitude -122.361856°

Parameter	Annual Average [a]
Settleable Solids	0.3 mL/L/hr
TSS	≥50% removal of influent TSS [b]
Parameter	**Daily Range [c]**
pH	6.0 – 9.0 standard units
Parameter	**Daily Maximum [d]**
Total Residual Chlorine (interim limit) [f]	109 µg/L
Total Residual Chlorine (final limit) [f]	13 µg/L
Zinc (interim limit) [f]	162.5 µg/L
Zinc (final limit) [f]	90 µg/L
Copper (interim limit) [f]	84.1 µg/L
Copper (final limit) [f]	4.8 µg/L
Parameter	**Monthly Geometric Mean**
Fecal Coliform Bacteria [e]	400/100 mL

Table 6 – Effluent Limits: Henderson/MLK CSO Treatment Plant, Outfall 044

Water body: Duwamish Waterway
Latitude 47.51194° Longitude -122.29736°

Parameter	Annual Average [a]
Settleable Solids	0.3 mL/L/hr
TSS	≥50% removal of influent TSS [b]
Parameter	**Daily Range [c]**
pH	6.0 – 9.0 standard units
Parameter	**Daily Maximum [d]**
Total Residual Chlorine	32.5 µg/L
Copper (interim limit) [g]	22.3 µg/L
Copper (final limit) [g]	12.3 µg/L
Parameter	**Monthly Geometric Mean**
Fecal Coliform Bacteria [e]	400/100 mL

Table 7 – Effluent Limits: Carkeek CSO Treatment Plant, Outfall 046
Water body: Puget Sound
Latitude 47.71264° Longitude -122.38789°

Parameter	Annual Average [a]
Settleable Solids	0.3 mL/L/hr
TSS	≥50% removal of influent TSS [b]
Parameter	**Daily Range [c]**
pH	6.0 – 9.0 standard units
Parameter	**Daily Maximum [d]**
Total Residual Chlorine	490 µg/L
Parameter	**Monthly Geometric Mean**
Fecal Coliform Bacteria [e]	400/100 mL
Parameter	**Long-Term Average [h]**
Number of Discharge Events	29 events/year
Discharge Volume	108 million gallons/year

Table 8 – Effluent Limits: Alki CSO Treatment Plant, Outfall 051
Water body: Puget Sound
Latitude 47.57025° Longitude -122.4225°

Parameter	Annual Average [a]
Settleable Solids	0.3 mL/L/hr
TSS	≥50% removal of influent TSS [b]
Parameter	**Daily Range [c]**
pH	6.0 – 9.0 standard units
Parameter	**Daily Maximum [d]**
Total Residual Chlorine	221 µg/L
Parameter	**Monthly Geometric Mean**
Fecal Coliform Bacteria [e]	400/100 mL
Parameter	**Long-Term Average [h]**
Number of Discharge Events	10 events/year
Discharge Volume	46 million gallons/year

Table 9 – Effluent Limits: Georgetown CSO Treatment Plant, Outfall 058
Water body: Duwamish Waterway
Latitude 47.54279° Longitude -122.33484°

Parameter	Annual Average [a]
Settleable Solids	0.3 mL/L/hr
TSS	≥50% removal of influent TSS [b]
Parameter	**Daily Range [c]**
pH	6.0 – 9.0 standard units
Parameter	**Monthly Geometric Mean**
Fecal Coliform Bacteria [e]	400/100 mL

Table 10 – Footnotes for Tables 5-9

Footnote	Information
a	Annual average is the average of all "discharge events" during a calendar year. A "discharge event" is any period of time where treated effluent discharges from the treatment facility through the authorized outfall. The Permittee may not omit any discharge events from the annual average calculation.
b	TSS percent removal is assessed based only on the annual average mass of TSS removed at the specific CSO treatment facility during "discharge events". Monitoring data must demonstrate that each individual CSO treatment facility removes at least 50% of the average TSS prior to discharge.
c	The pH of effluent discharged from each CSO treatment facility must be within the range of 6.0 to 9.0 standard units. Report daily minimum and maximum pH values.
d	Daily maximum effluent limit is the highest allowable daily discharge. The daily discharge is the average measurement of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.
e	Ecology provides directions to calculate the monthly and the weekly geometric mean in Ecology's Information Manual for Wastewater Treatment Plant Operators, Publication Number 04-10-020 available at: https://apps.ecology.wa.gov/publications/SummaryPages/0410020.html.
f	Interim limits for total residual chlorine, copper, and zinc at the Elliott West CSO Treatment Plant (outfall 027b) apply until completion of facility improvements designed according to requirements in Special Condition S15. During the permit term, the Permittee must complete required facility planning and design for treatment plant improvements necessary achieve the final limits.
g	Interim copper limit at the Henderson/MLK CSO Treatment Plant (outfall 044) applies until completion of improvements identified by the assessment required by Special Condition S16. During the permit term, the Permittee must take actions described in Special Condition S16 to evaluate source control or treatment plant improvements necessary to achieve the final limit.
h	Assess long-term average 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.

S1.C. Mixing zone authorization

Mixing zone for Puget Sound outfalls

The following paragraphs define the maximum boundaries of the mixing zones for discharges to Puget Sound. The descriptions apply to the following outfalls: 001 (West Point WWTP), 046 (Carkeek CSO Treatment Plant), and 051 (Alki CSO Treatment Plant). This permit does not authorize a mixing zone for outfall 027b (Elliott West CSO Treatment Plant).

Chronic mixing zone

The mixing zone for discharges into the marine waters of Puget Sound is a circle with radius of 200 feet plus the depth of water over the outfall at the mean lower low water (MLLW) level, measured from the center of each 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 (for outfall 001 only).

The complete mixing zones occupy an oval region centered around the diffuser for the outfalls. Section III.G of the fact sheet for this permit includes illustrations of the general shape of the mixing zones.

Acute mixing zone

The acute mixing zone is a circle with radius that is 10% of the length measured for the chronic mixing zone, measured from the center of each 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.

Table 11 summarizes the authorized dimensions for each outfall in Puget Sound. Table 12 summarizes the allowable dilution factors for the West Point WWTP. Authorized dilution factors for outfalls with intermittent discharges vary based on the critical exposure time for various pollutants. Table 13 summarizes dilution factors for the CSO Treatment Plants based on the critical averaging periods for acute and chronic exposure.

Table 11 – Mixing zone dimensions for Puget Sound outfalls

Outfall	Mixing Zone Shape	Chronic radius (feet)	Full dimension of chronic zone	Acute radius (feet)	Full dimension of acute zone
001: West Point WWTP	Oval around a straight diffuser	430	1,460 ft long 860 ft wide	43	686 ft long 86 ft wide
046: Carkeek CSO	Oval around a straight diffuser	395	840 ft long 790 ft wide	39.5	129 ft long 79 ft wide
051: Alki CSO	Generally oval around a “Y” shaped diffuser	343	806 ft long 686 ft wide	34	188.6 ft long 68.6 ft wide

Table 12 – Dilution factors for West Point WWTP

Outfall	Aquatic Life Acute	Aquatic Life Chronic	Human Health: Carcinogen	Human Health: Non-Carcinogen
001: West Point WWTP	29	229	229	316

Table 13 – Dilution factors for Puget Sound CSO Treatment Plant outfalls

Outfall	Aquatic Life Acute (Instantaneous)	Aquatic Life Acute (1-hour)	Aquatic Life Chronic (24-hour)	Aquatic Life Chronic (4-day)
046: Carkeek CSO	35	41	102	420
051: Alki CSO	17	17	82	190

Mixing zones for Duwamish River Outfalls

The following paragraphs define the maximum boundaries of the mixing zones for discharges to Duwamish River. The descriptions apply to the following outfalls: 044 (Henderson/MLK CSO Treatment Plant) and 058 (Georgetown CSO Treatment Plant).

Chronic mixing zone

The chronic mixing zone width for discharges into the rivers or river-like estuaries is limited to 25% of the width of the river or estuary channel. The mixing zone length is limited to 300 feet plus the depth of water over the outfall at MLLW in the downstream direction and 100 feet in the upstream direction. In tidally influenced rivers or estuary channels, the mixing zone length becomes 200 feet plus the depth of water over the outfall at MLLW in both the downstream and upstream directions. This permit authorizes a chronic mixing zone for outfall 044 based on standard river-like dimensions and outfall 058 based on allowances for tidally influenced rivers. The concentration of pollutants at the edge of the chronic zone must meet chronic aquatic life criteria.

Acute mixing zone

The acute mixing zone width is limited to 25% of the width of the river or estuary channel. The mixing zone length is limited to 10% of the length measured for the chronic mixing zone. 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.

Table 14 summarizes the authorized dimensions for each outfall in the Duwamish River and Table 15 summarizes the allowable dilution factors.

Table 14 – Mixing zone dimensions for Duwamish River outfalls

Outfall	Mixing Zone Shape	Mixing Zone width (feet)	Chronic zone Length	Acute zone Length
044: Henderson/MLK CSO	Generally rectangular	74	312 ft downriver 100 ft upriver	31.2 ft downriver 10 ft upriver
058: Georgetown CSO	Generally rectangular	100	214 ft downriver 214 ft upriver	21.4 ft downriver 21.4 ft upriver

Table 15 – Dilution factors for Duwamish River outfalls

Outfall	Aquatic Life Acute (Instantaneous)	Aquatic Life Acute (1-hour)	Aquatic Life Chronic (24-hour)	Aquatic Life Chronic (4-day)
044: Henderson/MLK CSO	2.5	2.5	44	180
058: Georgetown CSO	10	10	20.5	74.1

S2. Monitoring requirements

S2.A. Monitoring schedule – West Point WWTP

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. The Permittee must also monitor sediments in the vicinity of outfall 001, as directed by Special Condition S9.

Table 16 – 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, at the minimum frequency listed below.

Parameter	Units	Minimum Frequency	Sample Type
Biochemical Oxygen Demand (BOD_5)	mg/L	1/week	24-hr Composite [a]
BOD_5	lbs/day	1/week	Calculated [b]
$CBOD_5$	mg/L	1/day	24-hr Composite [a]
$CBOD_5$	lbs/day	1/day	Calculated [b]
TSS	mg/L	1/day	24-hr Composite [a]
TSS	lbs/day	1/day	Calculated [b]

Table 17 – 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.

Parameter	Units	Minimum Frequency	Sample Type
Flow	mgd	Continuous [c]	Metered/recorded
$CBOD_5$	mg/L	1/day	24-hr Composite [a]
$CBOD_5$	lbs/day	1/day	Calculated [b]
$CBOD_5$	% removal	1/month	Calculated [d]
TSS	mg/L	1/day	24-hr Composite [a]
TSS	lbs/day	1/day	Calculated [b]
TSS	% removal	1/month	Calculated [d]
Chlorine (Total Residual)	µg/L	Continuous [c]	Metered/recorded
pH	Standard Units	Continuous [c,f]	Metered/recorded
Fecal Coliform [g]	MPN/100 mL	1/day	Grab [h]
Enterococci [i]	MPN/100 mL	2/week	Grab [h]
Total PCBs [o]	ng/L	1/month	24-hr Composite [a]

Table 18 – Wet Weather Operations Monitoring

This monitoring applies whenever the Permittee bypasses the secondary treatment process at the West Point WWTP during wet weather, as allowed by Special condition S.10 of this permit. The Permittee must monitor each bypass event according to the following schedule.

Parameter	Units	Minimum Frequency	Sample Type
Treatment Plant flow rate at time of bypass	MGD	1/event [j]	Metered/recorded
Duration of bypass	hours	1/event [j]	Measurement
Total bypass volume	MG	1/event [j]	Calculation
Daily rainfall amount	inches	1/event [j]	Measurement

Table 19 – Expanded Monitoring for Pretreatment and Reapplication Purposes

Unless specified otherwise, the Permittee must monitor the following parameters in the influent at the headworks, the effluent, and the biosolids to satisfy the Pretreatment requirements in Special Condition S6.B. Effluent data collected through this monitoring also satisfies testing required for the next 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. In addition, monitoring requirements for dissolved hexavalent Chromium and Oil and grease apply only to the influent and effluent.

Parameter	Units	Minimum Frequency	Sample Type
pH (influent and biosolids only)	Standard Units	1/quarter [k]	Grab [h]
Oil and Grease (influent and effluent only)	mg/L	1/quarter [k]	Grab [h]
Cyanide	µg/L	1/quarter [k]	Grab [h]
Total Phenolic Compounds	µg/L	1/quarter [k]	Grab [h]
Chromium (hex), dissolved [l]	µg/L	1/quarter [k]	Grab [h]
Priority Pollutants (PP) – Total Metals [l]	µg/L; ng/L for mercury	1/quarter [k]	24-hr Composite [a] Grab for mercury [h]
PP – Volatile Organic Compounds	µg/L	1/year [m]	Manual composite – see condition S6.B.6
PP – Acid-extractable Compounds	µg/L	1/year [m]	24-hr Composite [a]
PP – Base-neutral Compounds	µg/L	1/year [m]	24-hr Composite [a]
PP – Pesticides/PCBs	ng/L	1/year [m]	24-hr Composite [a]

Table 20 – Permit renewal application requirements – final wastewater effluent

This table includes effluent monitoring parameters not required by other routine monitoring that the Permittee must report in their next permit application.

Parameter	Units	Minimum Frequency	Sample Type
Temperature	Degrees Celsius	1/quarter [k]	Grab [h,n]
Dissolved Oxygen	mg/L	1/quarter [k]	Grab [h]
Total Phosphorus	mg/L as P	1/quarter [k]	24-hr Composite [a]
Soluble Reactive Phosphorus	mg/L as P	1/quarter [k]	24-hr Composite [a]
Total Dissolved Solids	mg/L	1/quarter [k]	24-hr Composite [a]
Total Hardness	mg/L	1/quarter [k]	24-hr Composite [a]

Table 21 – PFAS monitoring

The Permittee must monitor the concentrations of Per- and polyfluoroalkyl substances (PFAS) in the influent, effluent, and biosolids to the West Point WWTP during 2025 and 2026. The permittee must use the latest revision of EPA Method 1633 if monitoring begins prior to EPA's approval of analytical methods for PFAS chemicals under 40 CFR 136. If monitoring begins after EPA approves analytical methods for PFAS chemicals under 40 CFR 136, the permittee may use any sufficiently sensitive approved method. Other methods for evaluating PFAS in wastewater may be used if approved by Ecology. If there is no accredited lab to perform the analysis, the Permittee may use an unaccredited lab. Report results on quarterly DMRs for 2025 and 2026.

Parameter	Required Analytical Protocol	Units	Minimum Sampling Frequency	Sample Type
PFAS	EPA Method 1633	ng/L	1/quarter [k]	Grab [h]

Table 22 – Whole effluent toxicity testing – final wastewater effluent

The Permittee must conduct acute and chronic whole effluent toxicity testing during the second half of 2026 and the first half of 2027 for use in the next application for permit renewal. See Special Conditions S13 and S14 for additional requirements.

Parameter	Additional Information	Minimum Sampling Frequency	Sample Type
Acute Toxicity Testing	See Special Condition S13	2/permit cycle, as specified in S13	24-hr Composite [a]
Chronic Toxicity Testing	See Special Condition S14	2/permit cycle, as specified in S14	24-hr Composite [a]

Table 23 – Footnotes for Tables 16-22

Footnote	Information
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	Calculate mass concurrently with the respective sample, using the following formula: Concentration (in mg/L) X Flow (in MGD) X Conversion Factor (8.34) = lbs/day
c	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.
d	Calculate the percent (%) removal of $CBOD_5$ and TSS using the following equation. % removal = [(Influent concentration (mg/L) – Effluent concentration (mg/L)) / Influent concentration (mg/L)] x 100
e	Reserved.
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 numeric value for fecal coliforms following the procedures in Ecology's Information Manual for Wastewater Treatment Plant Operators, Publication Number 04-10-020 available at: https://apps.ecology.wa.gov/publications/SummaryPages/0410020.html. Do not report a result as too numerous to count (TNTC).
h	Grab means an individual sample collected over a fifteen (15) minute, or less, period.
i	Permittee must analyze Enterococci in the same grab sample used for fecal coliform analysis to allow for direct comparison of results.
j	Wet weather bypass event
k	Quarterly sampling periods are January through March, April through June, July through September, and October through December. The Permittee must begin quarterly monitoring for the quarter beginning on 7/1/2023 and submit results by 10/15/2023.
l	Priority Pollutant Scans for Total Metals must use total recoverable metal laboratory methods for all parameters except for hexavalent chromium. The 40 CFR 136 method for hexavalent chromium measures only its dissolved form. Hexavalent chromium analysis is not required for biosolids samples.
m	The first annual monitoring period begins on the effective date of the permit and lasts through December 31, 2023. All subsequent annual monitoring periods are January 1st through December 31st of each year.
n	Temperature grab sampling must occur when the effluent is at or near its daily maximum temperature, which usually occurs in the late afternoon. If measuring temperature continuously, the Permittee must determine and report the highest daily maximum temperature recorded during the monitoring period. Continuous monitoring instruments must achieve an accuracy of 0.2 degrees C and the Permittee must verify accuracy annually.
o	Use EPA Method 608.3 as identified in Appendix A for Total PCB compliance monitoring.

S2.B. Monitoring schedule – CSO Treatment Plants: Elliott West (027b) Henderson/MLK (044), Carkeek (046), Alki (051), and Georgetown (058)

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 24 – CSO treatment facility influent

Wastewater Influent means the raw combined sewage flow from the collection system into the CSO treatment facility. Sample and report data for all inflow events regardless of whether the event results in a discharge of treated combined sewage through the facility's authorized outfall. The Permittee must not use data from "storage only" inflow events when calculating TSS percent removal required in Table 25. "Storage only" refers to an inflow event that does not result in a discharge and all flow is returned to the collection system for treatment at the West Point WWTP.

Parameter	Units	Minimum Sampling Frequency	Sample Type
Number of events [a,b]	Not applicable	1/month	Count
Flow	mgd	1/event [b]	Metered/recorded
Volume	Million Gallons (MG)	1/event [b]	Calculated
BOD_5	mg/L	Daily/event [c]	Composite, flow proportional [d]
TSS	mg/L	Daily/event [c]	Composite, flow proportional [d]

Table 25 – Treated CSO effluent

Treated CSO Effluent means all primary-treated and disinfected combined sewage that discharges from the CSO treatment facility through its authorized outfall. The Permittee must sample and report data for all discharge events according to the schedule below. 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.

Parameter	Units	Minimum Sampling Frequency	Sample Type
Number of events [e,f]	Not applicable	1/month	Count
Storm duration [g]	Hours	1/day	Measured
Precipitation [h]	inches	1/day	Measured
Volume	MG	1/event [f]	Calculated
Discharge duration [i]	Hours	1/day	Measured
BOD_5	mg/L	daily/event [j]	Composite, flow proportional [d]
Settleable Solids, event	milliliters/liter (ml/L)	daily/event [j]	Composite, flow proportional [d]
Settleable Solids, Annual Average	ml/L	1/year	Calculated
TSS	mg/L	daily/event [j]	Composite, flow proportional [d]
TSS – Monthly Average	% removal,	1/month [k]	calculated
TSS – Annual Average	% removal,	1/year [k]	calculated
Chlorine	µg/L	Continuous/event	Metered/recorded
Fecal Coliform	MPN/100 mL	daily/event [j,l]	Grab
Enterococci	MPN/100 mL	daily/event [j,l]	Grab
pH [n]	Standard Units	Continuous/event	Metered/recorded
Copper (outfalls 027b and 044 only)	µg/L	2/month	Composite, flow proportional [d]
Zinc (outfall 027b only)	µg/L	2/month	Composite, flow proportional [d]

Table 26 – Final effluent characterization – Georgetown CSO Treatment Plant (outfall 058)

The Permittee must characterize the treated CSO effluent discharged from the Georgetown CSO treatment facility (outfall 058) according to the following schedule. The schedule is developed to collect samples from this new facility during four months in the first full year of operation beginning with the wet season starting October 1, 2024. As specified in Special Condition S3.A.4.d, report results for the initial monitoring on the monthly DMR for this facility. If four discharge events do not occur during the period of October 1, 2024 through December 31, 2025, the Permittee must continue to sample discharge events until it has completed the required number of initial tests. After completion of the initial sampling, the Permittee must monitor for the pollutants listed below on a minimum frequency of one sample per year.

Parameter	Units	Minimum Sampling Frequency	Sample Type
Total Ammonia	mg/L as N	4 monthly samples during 1st year wet season; 1/year thereafter	Composite, flow proportional [d]
Nitrate plus Nitrite Nitrogen	mg/L as N	4 monthly samples during 1st year wet season; 1/year thereafter	Composite, flow proportional [d]
Total Kjeldahl Nitrogen (TKN)	mg/L as N	4 monthly samples during 1st year wet season; 1/year thereafter	Composite, flow proportional [d]
Total Phosphorus	mg/L as P	4 monthly samples during 1st year wet season; 1/year thereafter	Composite, flow proportional [d]
Soluble Reactive Phosphorus	mg/L as P	4 monthly samples during 1st year wet season; 1/year thereafter	Composite, flow proportional [d]
Total alkalinity	mg/L as $CaCO_3$	4 monthly samples during 1st year wet season; 1/year thereafter	Composite, flow proportional [d]
Total Dissolved Solids	mg/L	4 monthly samples during 1st year wet season; 1/year thereafter	Composite, flow proportional [d]
Total Hardness	mg/L	4 monthly samples during 1st year wet season; 1/year thereafter	Composite, flow proportional [d]
Temperature [o]	Degrees Celsius	4 monthly samples during 1st year wet season; 1/year thereafter	Grab
Oil and Grease	mg/L	4 monthly samples during 1st year wet season; 1/year thereafter	Grab
Cyanide	µg/L	4 monthly samples during 1st year wet season; 1/year thereafter	Grab
Total Phenolic Compounds	µg/L	4 monthly samples during 1st year wet season; 1/year thereafter	Grab
Chromium (hex), dissolved	µg/L	4 monthly samples during 1st year wet season; 1/year thereafter	Grab
Priority Pollutants (PP) – Total Metals	µg/L; ng/L for mercury	4 monthly samples during 1st year wet season; 1/year thereafter	Composite, flow proportional [d] Grab for mercury
PP – Volatile Organic Compounds	µg/L	4 monthly samples during 1st year wet season; 1/year thereafter	Grab
PP – Acid-extractable Compounds	µg/L	4 monthly samples during 1st year wet season; 1/year thereafter	Composite, flow proportional [d]
PP – Base-neutral Compounds	µg/L	4 monthly samples during 1st year wet season; 1/year thereafter	Composite, flow proportional [d]
PP – Pesticides/PCBs [m] Using Method 1668c	ug/L or ng/L	4 monthly samples during 1st year wet season	Composite, flow proportional [d]
PP – Pesticides/PCBs [m] Using Method 608.3	ug/L or ng/L	1/year (after initial characterization)	Composite, flow proportional [d]

Table 27 – Final effluent characterization – Other CSO Treatment Plants (outfalls 027b, 044, 046, and 051)

The Permittee must characterize the treated CSO effluent discharged from the Elliott West (outfall 027b), Henderson/MLK (outfall 044), Carkeek (outfall 046) and Alki (outfall 051) CSO treatment facilities according to the following schedule.

Parameter	Units	Minimum Sampling Frequency	Sample Type
Total Ammonia	mg/L as N	1/year	Composite, flow proportional [d]
Nitrate plus Nitrite Nitrogen	mg/L as N	1/year	Composite, flow proportional [d]
Total Kjeldahl Nitrogen (TKN)	mg/L as N	1/year	Composite, flow proportional [d]
Total Phosphorus	mg/L as P	1/year	Composite, flow proportional [d]
Soluble Reactive Phosphorus	mg/L as P	1/year	Composite, flow proportional [d]
Total alkalinity	mg/L as $CaCO_3$	1/year	Composite, flow proportional [d]
Temperature	Degrees Celsius	1/year	Grab
Total Dissolved Solids	mg/L	1/year	Composite, flow proportional [d]
Total Hardness	mg/L	1/year	Composite, flow proportional [d]
Oil and Grease	mg/L	1/year	Grab
Cyanide	µg/L	1/year	Grab
Total Phenolic Compounds	µg/L	1/year	Grab
Chromium (hex), dissolved	µg/L	1/year	Grab
Priority Pollutants (PP) – Total Metals	µg/L; ng/L for mercury	1/year	Composite, flow proportional [d] Grab for mercury
PP – Volatile Organic Compounds	µg/L	1/year	Grab
PP – Acid-extractable Compounds	µg/L	1/year	Composite, flow proportional [d]
PP – Base-neutral Compounds	µg/L	1/year	Composite, flow proportional [d]
PP – Pesticides/PCBs	ug/L or ng/L	1/year	Composite, flow proportional [d]

Table 28 – Footnotes for Tables 24-27

Footnote	Information
a	"Number of events" for Table 24 means the total number of discrete events during the monitoring period when combined sewage flowed into the CSO treatment facility. Report on the monthly DMR the total number of events for the month and identify the days when each event occurred.
b	"Event" for Table 24 means a unique period of time when precipitation causes combined sewage to divert from the combined sewer system (CSS) to the CSO treatment facility. Ecology defines the minimum inter-event period (time between discrete events) as 24 hours. An inflow event is considered to have ended after at least 24 hours has elapsed since the last measured occurrence of flow into the treatment facility.
c	Monitoring of influent BOD_5 and TSS required each day in inflow event occurs. Monitoring is not required when an inflow event does not occur.
d	Flow proportional composite means a series of individual samples collected over the sampling period into a single container and analyzed as one sample. Individual sample amounts must vary based to the flow rate at the time of sample in order to more accurately represent the characteristics of the wastewater. Sampling must occur over the full duration of the event, but no longer than 24 hours.
e	"Number of events" for Table 25 means the total number of discrete events during the monitoring period when treated combined sewage discharged from the CSO treatment facility through its authorized outfall. Report on the monthly DMR the total number of events for the month and identify the days during which each discrete event occurred.
f	"Event" for Table 25 means a unique period of time when the CSO treatment facility discharged treated combined sewage through its outfall. A discharge event is considered to have ended after at least 24 hours has elapsed since the last measured occurrence of flow from the facility.
g	Report the number of hours precipitation occurred for each day of the monitoring period.
h	Report precipitation as the inches of rainfall that occurred for each day of the monitoring period.
i	Report the number of hours the CSO treatment facility discharged for each day of the monitoring period. Reporting is not required for days the facility does not discharge.
j	Monitoring of effluent BOD_5, TSS, Settleable Solids, fecal coliform, and Enterococci required each day the CSO treatment facility discharges treated combined sewage through its outfall. Monitoring is not required when a discharge event does not occur.
k	The Permittee must calculate the facility specific TSS % removal for each CSO treatment plant using the average of influent TSS mass from samples collected during events when the facility had both inflow to the facility and discharge from the facility. Do not use influent data from events when the facility did not discharge (storage only). The monthly and annual % removal must use the following equation: % removal = [(average influent mass (mg/L) – average effluent mass (mg/L)) / Average influent mass (mg/L)] x 100
l	The Permittee must collect at least one sample for fecal coliform and enterococci analysis within the first 3 hours after a discharge event begins and may take additional samples at 3-6 hour intervals during the discharge. Report a single fecal coliform and single enterococci value for each day a treated combined sewage discharge occurs using either the results of a single test or the arithmetic average of all tests collected during the day if multiple samples were collected.
m	Initial PCB characterization at the Georgetown CSO Treatment Plant must use EPA Method 1668c for high-resolution testing of PCBs. Submit results as an Excel file attached to the discharge monitoring report containing other characterization testing. After completion of initial characterization, use EPA Method 608.3 for annual PCB monitoring necessary to collect data for the next permit application.
n	The Permittee must continuously record effluent pH. 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. Report the daily maximum and minimum values for each day the CSO treatment plant discharges based on instantaneous data averaged over a maximum interval of 5 minutes. Do not report daily average pH values.
o	Temperature grab sampling must occur when the effluent is at or near its daily maximum temperature, which usually occurs in the late afternoon. If measuring temperature continuously, the Permittee must determine and report the highest daily maximum temperature recorded during the monitoring period. Continuous monitoring instruments must achieve an accuracy of 0.2 degrees C and the Permittee must verify accuracy annually.

S2.C. Untreated combined sewer overflow (CSO) monitoring schedule

The Permittee must monitor all discharges from CSO outfalls listed in Table 32 of Special Condition S11.A using the following monitoring schedule. Permittees must use automatic flow monitoring equipment calibrated according to the requirements in Condition S2.E to collect the information required below. The Permittees must report the monitoring results monthly using electronic discharge monitoring reports as required in Special Condition S3.A. The Permittee must also monitor sediments in the vicinity of certain untreated CSO outfalls, as directed by Special Condition S9.

Table 29 – Combined sewer overflow (CSO) monitoring schedule

A CSO discharge occurs when any untreated combined sewage exits the combined sewer system for release to waters of the state through a CSO outfall identified in Table 32 of Special Condition S11.A.

Parameter	Units	Minimum Sampling Frequency	Sample Type
Volume Discharged [a]	Gallons	Per Event [b]	Measurement/Calculation
Discharge Duration	Hours	Per Event [b]	Measurement
Precipitation [c]	Inches	Per Event [b]	Measurement/Calculation
Storm Duration [d]	Hours	Per Event	Measurement

Table 30 – Footnotes for Untreated CSO Monitoring

Footnote	Information
a	Calculate the total volume of the discharge by direct measurement using a continuous flow measurement device. The Permittee may estimate volume using indirect calculations during periods when continuous flow measurement is not available due to power failure, or unanticipated equipment repair or maintenance.
b	"Per Event" means a unique flow event as defined in the Permit Writer's Manual, pp. 141-147. Ecology defines the minimum inter-event period (MIET) 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. https://apps.ecology.wa.gov/publications/documents/92109.pdf
c	Determine the amount of precipitation for a discharge event using direct measurement with dedicated totalizing rain gauges located in reasonable proximity to the CSO basin and actively monitored during the period of interest. The Permittee may estimate rainfall indirectly by calculation using data from the National Weather Service or third party services.
d	Storm duration is the amount of total time when precipitation occurred that contributed to a discharge event.

S2.D. 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, including representative

sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

Sampling and analytical methods used to meet the wastewater 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 subchapter N [Parts 400–471] or 40 CFR subchapter O [Parts 501-503]) unless otherwise specified in this permit. Ecology may only specify alternative methods for parameters without limits and for those parameters without an EPA approved test method in 40 CFR Part 136. This condition does not apply to the monitoring of biosolids or sediments.

S2.E. Flow 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, 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 waste stream.
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 according to the manufacturer's requirements.
    c. Must calibrate continuous chlorine measurement instruments according to instructions developed by the instrument manufacturer. In situations where manufacture directions are not available, calibration must be completed using a grab sample analyzed in the laboratory within 15 minutes of sampling.
4. Establish a calibration frequency for each device or instrument in the O&M manual that conforms to the frequency recommended by the manufacturer.
5. Calibrate flow-monitoring devices at a minimum frequency of at least one calibration per year.
6. Maintain calibration records for at least three years.

S2.F. 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 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.A through S2.C 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.

   The Permittee may choose to submit written reports that summarizes the performance of the West Point WWTP and the CSO treatment plants during the monitoring period. If the Permittee choses to submit supplemental written reports, it must consolidate all reports for the monitoring period into a single PDF document attached to the DMR.
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. The Permittee must submit the first monthly DMR by July 15, 2024, for the monitoring period beginning on June 1, 2024.
   b) Submit **quarterly DMRs**, unless otherwise specified in the permit, by the 15th day of the month following the monitoring period. Quarterly monitoring periods are January through March, April through June, July through September, and October through December. The Permittee must submit the first quarterly DMR on October 15, 2024, for the quarter beginning on July 1, 2024.

c) Submit **annual DMRs**, unless otherwise specified in the permit, by January 15th for the previous calendar year. The Permittee must submit the first annual DMR by January 15, 2025, for the partial year beginning on July 1, 2024, and running through December 31, 2024. Each subsequent annual sampling period is the full calendar year.

d) Include initial effluent characterization at the Georgetown CSO treatment facility, as required by Table 26, on the **monthly DMRs** for outfall 058. Include results for all pollutants monitored during the characterization except PCBs that use EPA method 1668c. Submit these PCB results in a separate Excel file attached to the DMR. Submit the first effluent characterization monitoring results on the DMR due November 15, 2024, for the monitoring period that begins on October 1, 2024. Beginning January 1, 2026, submit the effluent characterization data for outfall 058 on the annual DMRs required by Special Condition S3.A.4.c above.

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) Submit bacteria monitoring results that do not report zero for any 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.

    b) If the Permittee takes multiple samples in one day, it must use the arithmetic average for the day in the geometric mean calculation.

11) Report the detection limit for those samples measured below detection.

12) 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.

13) 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 limit (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, except for bacteria parameters) if the lab did not detect the parameter in another sample for the reporting period.

14) 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 Region Office
P.O. Box 330316
Shoreline, WA 98133-9716

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 at the West Point WWTP or any CSO treatment plant.
- Collection system overflows including all:
  - Prohibited “dry weather overflows” from any CSO outfall (see Special Condition S11.B.5); and
  - Sanitary sewer overflows to surface waters, stormwater conveyance systems, or into areas open to public access. This reporting requirement does not apply to permitted CSO discharges.
- Plant bypasses discharging to marine surface waters.
- Any other failures of the sewage system (pipe breaks, etc.)

Northwest Regional Office	206-594-0000
Department of Health, Shellfish Program	360-789-8962
Public Health of Seattle – King County	WaterRecreationProgramSewageRelease@kingcounty.gov (business hours) 206-263-7885 (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 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. This requirement includes all sanitary sewer overflows into buildings caused by capacity constraints in the Permittee's collection system.

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. 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. Quarterly violation summary reports

The Permittee must submit a spreadsheet once per quarter that provides a summary of information for each of the following violations that occurred during the quarter:

- Effluent limit violations reported for any CSO treatment plant.
- Sanitary sewer overflows reported according to Special Condition S3.F.a or S3.F.b.
- Dry weather overflows.

The report must summarize and, as necessary, update the information required for the "5-day written follow-up" required by Special Condition S3.F.c. and include each ERTS tracking number, when applicable. Submit the spreadsheet electronically using the Water Quality Permitting Portal – Permit Submittals application under the "As Needed, Quarterly Violation Report" submittal schedule. The spreadsheet file name must identify the quarter and year for the report (example: "Quarterly violation 2023Q1"). The Permittee must submit the report no later than the 15th day of the month following each reporting period. Quarterly reporting periods are January through March, April through June, July through September, and October through December.

f. 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 WAC. You can obtain further instructions on How to Report a Spill at: 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 to the West Point WWTP must not exceed the design criteria in Table 31. Special Condition S10 authorizes the Permittee to bypass the secondary treatment units at the West Point WWTP when precipitation causes treatment plant flows to exceed the secondary treatment flow capacity listed below.

Table 31 – Design criteria – West Point WWTP

Flow	Unit
Maximum Month Design Flow (MMDF)	215 MGD
Secondary treatment flow capacity (Maximum Daily Flow)	300 MGD
Monthly maximum BOD5 influent loading	201,000 lbs/day
Monthly maximum TSS influent loading	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.
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 influent flows and waste loads to the West Point WWTP and CSO treatment plants and submit a report to Ecology by March 1, 2028.

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. Peak flows.
   c. $CBOD_5$ loading (West Point only).
   d. Total suspended solids loadings (all facilities).

e. The 5-year annual average number of discharge events, discharge volumes, and discharge durations for each CSO treatment plant.

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

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. 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. Special Condition S10 (Wet Weather Operations) of this permit authorizes limited anticipated bypasses of the secondary treatment units at the West Point WWTP only when treatment plant flows exceed 300 MGD as a result of precipitation.

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 for collecting representative samples of unusual discharge conditions, as specified in special condition S2.D.

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 substantial changes or updates to the O&M 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) (Ecology, 2023). 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; the 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 specified in King County Public Rule titled “Industrial Waste Local Discharge Limits” (document code PUT-8-13-2-PR dated November 18, 2020, and all subsequent revisions), 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. 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)(viii).

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 40 CFR 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 40 CFR 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. In addition, the Permittee must develop a Memorandum of Understanding (or Inter-local Agreement) that outlines the specific roles, responsibilities, and pretreatment activities of each jurisdiction.

2. Per 40 CFR 403.8(f)(2)(vi), 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 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.

4. **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 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 non-domestic inventory.

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 sludge 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 interference, upset, or permit violations experienced at the POTW 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 approved local pretreatment program.
- PFAS source identification and/or reduction activities included in permits. (See Section S6.E below)

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 noncompliance.
- 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.

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:

1. 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 because of Special Condition S6.B.4, and any other

pollutants expected from non-domestic sources using U.S. EPA-approved procedures for collection, preservation, storage, and analysis.

2. 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.
3. Test influent, effluent, and biosolids samples for the organic priority pollutants (Table II, 40 CFR 122, Appendix D) on an annual basis. The Permittee may use the effluent data collected for NPDES permit application purposes using Appendix A test methods to meet this requirement.
4. Sample POTW influent and effluent on a day when industrial discharges are occurring at normal-to-maximum levels.
5. Obtain samples according to sample collection methods specified in Table 19.
6. Collect grab samples at equal intervals for a total of four grab samples per day for the analysis of volatile organic compounds. The laboratory may run a single analysis for volatile pollutants (EPA Method 624) 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.
7. Ensure that all reported test data for metals represents the total amount of the constituents present in all phases, whether solid, suspended, or dissolved elemental or combined, including all oxidation states unless otherwise indicated.
8. Handle, prepare, and analyze all wastewater samples taken for GC/MS analysis in accordance with the U.S. EPA Method 624.1 and EPA Method 625.1 (December 2016).
9. Collect a biosolids sample concurrently with a wastewater sample as a single grab of residual sludge. biosolids organic priority pollutant sampling and analysis must conform to U.S. EPA SW 846 8000 Series Methods unless the Permittee requests an alternate method and Ecology has approved. Biosolids metals priority pollutant sampling and analysis must conform to U.S. EPA SW 846 6000 Series Methods and EPA SW 846 7000 Series Methods unless the Permittee requests an alternate method and Ecology has approved.
10. Collect grab samples for cyanide, phenols, and oil and grease. Measure hexane soluble oil and grease (or equivalent) only in the influent and effluent.
11. 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 per 40 CFR 136, Appendix A, EPA Method 624.1 and EPA Method 625.1, in addition to quantifying pH, oil and grease, and all priority pollutants.

    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 may express results for non-substituted aliphatic compounds as total hydrocarbon content.

12. 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.
13. Conduct additional sampling and appropriate testing to determine concentration and variability, and to evaluate trends for all detected substances determined to be pollutants.

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 evaluation

The Permittee must submit a written technical evaluation of the need to revise local limits under 40 CFR 403.5(c)(1) within 1 year of the permit effective date, and every 5 years thereafter, or sooner if any of the following occur,

- A new industrial user(s) begins a discharge that may significantly impact the POTW, including but not limited to:
  - The flow is ≥5% of the average dry weather hydraulic or organic capacity of the POTW treatment plant, or
  - The flow represents a 25% or greater increase in the total industrial flow to the POTW, or
  - The discharge contains elevated levels of pollutants for which there are established local limits or permit limits, or
  - The discharge contains a pollutant(s) of concern new to the POTW.
- Any existing industrial user(s) modifieds their discharge in a manner that may significantly impact the POTW as above,
- Changes or upgrades occur to the POTW's operations or treatment capacities.

The written technical evaluation submittal must include, at a minimum, the following,

- Evaluation of the MAHL and MAIL for each pollutant of concern.
- Evaluation must take into account water quality in the receiving water, inhibition levels for biological processes at the treatment plant, sludge quality goals, and any other applicable, limiting factors.
- Pollutants of concern evaluated include, but are not limited to, arsenic, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, zinc, BOD_5, TSS, and ammonia (if the plant accepts nondomestic sources of

ammonia). The Permittee must evaluate any other pollutants of concern based on impacts to water quality, sludge quality, and worker health and safety.

- Narrative discussion of the need to revise allocated local limits.
- All supporting calculations and a narrative of all assumptions used in the calculations.

The Permittee must follow the program modification requirements in permit condition S6.A.5 for any local limit modifications that arise from a technical evaluation.

S6.E. Identification and control of PFAS discharges

The Permittee must take the following actions to identify and control potential industrial sources of per-and polyfluoroalkyl substances (PFAS) that may enter the Permittee's wastewater collection and treatment system. The Permittee must:

1. Update or revise its IU inventory by April 30, 2027, to include the following industry categories known or suspected to discharge PFAS: organic chemical manufacturing or wholesalers, plastics & synthetic fibers (OCPSF); metal finishing; electroplating; electric and electronic components; landfills; pulp, paper & paperboard; leather tanning & finishing; plastics molding & forming; textile mills; paint formulating, and airports. The Permittee must also include IUs in industries not listed above if it becomes aware that the IU may potentially discharge PFAS. Other industries may include centralized waste treatment facilities, industrial laundries, or remediation sites. IUs identified in this survey update may be SIUs, but also may be unpermitted IUs. The Permittee must submit the results of this revised IU inventory with the pretreatment annual report due on April 30, 2025.
2. By April 30, 2028, begin including a requirement in pretreatment permits for SIUs identified as known or suspected sources of PFAS for the pretreatment permittee to complete a PFAS pollution prevention/source reduction evaluation. This evaluation must assess whether the facility uses or has historically used any products containing PFAS and whether use of those products or legacy contamination reasonably can be reduced or eliminated. The Permittee should encourage the identification and implementation of reduction activities where feasible.
3. By April 30, 2028, evaluate other best management practices and pollution prevention strategies it can include in pretreatment permits to control the discharge of PFAS from SIUs. Control methods may include, but are not limited to, encouraging pollution prevention, product substitution, and good housekeeping practices.

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 plan at least annually and update the spill plan as needed.
2. Send 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

The Permittee must monitor sediments in the vicinity of the West Point WWTP, Alki CSO, Carkeek CSO, Barton CSO, Henderson Pump Station CSO, and MLK Jr. Avenue Regulator CSO outfalls according to the requirements below.

S9.A. Sediment sampling and analysis plan – West Point WWTP

The Permittee must submit to Ecology for review and approval a sediment sampling and analysis plan for sediment monitoring in the vicinity of the West Point WWTP outfall by April 1, 2026. The purpose of the plan is to recharacterize sediment quality at locations previously monitored in 2011 and 2017.

The Permittee must:

- Follow the guidance provided in the *Sediment Cleanup User's Manual, Appendix A: Sampling Guidance for NPDES Permits under the Sediment Management Standards* (Ecology, 2021) or the latest edition.
- Identify the proposed dates when sampling will occur. Sampling must occur between August 15 and September 30 unless the Permittee can demonstrate to Ecology's satisfaction that an alternate window will appropriately represent conditions during which benthic organisms are most at risk.
- 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 bioassay testing. Chemistry tests must be performed concurrently with bioassay tests as the stations identified below.
- Conduct chemical analyses of sediment samples for conventional parameters and the full suite of 47 Sediment Management Standards (SMS) marine chemicals listed in Table I of chapter 173-204-320 WAC at all stations.
- Perform bioassay tests at all stations with historical SQS exceedances and/or previous failed bioassay tests. 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.
- 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. Bioassay testing must, at a minimum, occur at the following stations: WP215N, WP230P, WP280W, WP410W, WP420NW, and WP430S.

S9.B. Sediment data report – West Point WWTP

Following Ecology approval of the sediment sampling and analysis plan, the Permittee must collect sediments between August 15th and September 30th of 2026, unless Ecology approves an alternate sampling period in the sediment sampling and analysis plan. The Permittee must submit to Ecology a sediment data report containing the results of the sediment sampling and analysis no later than April 15, 2027. The sediment data report must conform to the approved sediment sampling and analysis plan and include a trend analysis to determine if the history of sampling indicate whether pollutant concentrations are increasing, decreasing, or remaining stable. In addition, the Permittee must follow the guidance provided in the *Sediment Cleanup User's Manual, Appendix A:*

Sampling Guidance for NPDES Permits under the Sediment Management Standards (Ecology, 2021) or the latest edition. 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 biological data to Ecology's EIM database (linked below). Data must be submitted to EIM according to the instructions on the EIM website. The data submittal portion of the EIM website (linked below) provides information and help on formats and requirements for submitting tabular data.

- Environmental Information Management System (EIM) https://ecology.wa.gov/Research-Data/Data-resources/Environmental-Information-Management-database
- Data submittal portion of EIM website https://ecology.wa.gov/Research-Data/Data-resources/Environmental-Information-Management-database/EIM-submit-data
- MyEIM tools https://ecology.wa.gov/Research-Data/Data-resources/Environmental-Information-Management-database/Using-MyEIM

In addition to the EIM data submittal, Ecology's MyEIM tools (linked above) must be used to confirm that the submitted data was accurately entered into EIM. Any differences between the MyEIM analytical results and sediment data report must be identified and explained.

S9.C. Sediment sampling and analysis plan – CSO Outfalls

The Permittee must prepare sediment sampling and analysis plans for monitoring sediments near CSO outfalls as follows:

1. The Permittee must submit to Ecology for review and approval a sediment sampling and analysis plan for sediment monitoring in the vicinity of the Alki CSO Treatment Plant (outfall 051) and the Carkeek CSO Treatment Plant (outfall 046) by April 1, 2026. The plan must follow the protocols for sediment sampling and analysis plans listed in special condition S9.A above.
2. Unless waived by Ecology according to the allowance in special condition S9.D.1, the Permittee must submit to Ecology for review and approval a sediment sampling and analysis plan for sediment monitoring in the vicinity of the Barton CSO (057), Martin Luther King Jr. Avenue Regulator (013), and the Henderson Pump Station (045) outfalls by June 1, 2026. The plan developed for these outfalls, if required, must:

- Follow the guidance provided in the *Sediment Cleanup User's Manual, Appendix A: Sampling Guidance for NPDES Permits under the Sediment Management Standards* (Ecology, 2017) or the latest edition.

- Collect enough sediment in the top 10 cm at each station to allow for conventional parameter testing (percent solids, total organic carbon, particle size) and chemistry testing
- Conduct chemical analyses of sediment samples for conventional parameters and the full suite of 47 SMS marine chemicals listed in chapter 173-204-320 WAC for all stations in the vicinity of the Barton CSO outfall (057).
- Conduct chemical analyses of sediment samples for conventional parameters and the full suite of 35 chemicals with sediment screening levels and sediment cleanup objectives listed in Table VI of chapter 173-204-563 WAC for all stations in the vicinity of the Martin Luther King Jr. Avenue Regulator outfall (013) and the Henderson Pump Station outfall (045) outfall.

S9.D. Sediment data report – CSO Outfalls

1. By December 15, 2024, the Permittee must submit a sediment data report to Ecology documenting the results of sediment sampling completed after 2018 near the following untreated CSO outfall locations: Barton CSO outfall (057), Martin Luther King Jr. Avenue Regulator outfall (013), and the Henderson Pump Station outfall (045) outfall. This submission must include the sediment sampling and analysis plan the Permittee used for the monitoring. If Ecology determines that this monitoring used an acceptable sampling and analysis plan and provides adequate data, Ecology will waive the sediment sampling and analysis plan requirement in special condition S9.C.2. The Permittee must submit the sediment chemical and biological data from this monitoring to Ecology's EIM database as described in special condition S9.B.
2. Following Ecology approval of the sediment sampling and analysis plans submitted in S9.C.1 and S9.C.2 (if required), the Permittee must collect sediments between August 15th and September 30th of 2027, unless Ecology approves an alternate sampling period in the sediment sampling and analysis plans. The Permittee must submit to Ecology a sediment data report containing the results of the sediment sampling and analysis no later than April 15, 2028. The sediment data report must conform to all requirements described in Special Condition S9.B. In addition, the Permittee must summarize the results of sediment monitoring in the CSO annual report required in Special Condition S11.D.

S10. Wet Weather Operations – West Point WWTP

The Permittee may bypass of the secondary treatment portion of the West Point WWTP when the instantaneous flow rate to the WWTP exceeds 300 MGD as a result of precipitation. Bypasses that occur when the instantaneous flow rate is less than 300 MGD or result for a cause other than precipitation 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 wet weather-related bypass authorized under this condition, the Permittee must minimize the discharge of pollutants to the environment. At a minimum, wet weather-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.A.

The Permittee must monitor all wet weather-related bypasses according to the requirements in Special condition S2.A, Table 18, and maintain records of all wet weather-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 begins. The Permittee must report all occurrences of bypassing on the DMR for the month in which bypassing occurred and on annual basis. The annual report must include the above information in summary format and must be included in the annual CSO report required by Special Condition S11.D.

S11. Combined sewer overflows

S11.A. Authorized combined sewer overflow (CSO) discharge locations

Beginning on the effective date of this permit, the Permittee may discharge combined sewage (untreated domestic wastewater mixed with stormwater) from the following list of combined sewer overflow (CSOs) outfalls, which represent occasional point sources of pollutants. This permit authorizes only those discharges that result from overloading of the combined sewer system during precipitation events. The permit prohibits discharges not caused by precipitation, and discharges from locations not identified in the following table.

Table 32 – Combined sewer overflow (CSO) discharge locations

Outfall No.	Outfall Name	Location (Latitude, Longitude)	Receiving Water	Control Status
003	Ballard Siphon Regulator	47.66391, -122.38233	Lake Washington Ship Canal	Controlled
004	11th Avenue NW (East Ballard Overflow)	47.65949, -122.37077	Lake Washington Ship Canal	Uncontrolled
006	Magnolia South Overflow	47.63018, -122.39901	Elliott Bay/Puget Sound	Uncontrolled
007	Canal Street Overflow	47.65185, -122.35811	Lake Washington Ship Canal	Controlled
008	3rd Avenue West Overflow	47.65208, -122.36005	Lake Washington Ship Canal	Uncontrolled
009	Dexter Avenue Regulator	47.63227, -122.33923	Lake Union	Controlled
011	E. Pine Street PS Emergency Overflow	47.61492, -122.2803	Lake Washington	Controlled
012	Belvoir PS Emergency Overflow	47.65669, -122.28759	Lake Washington (Union Bay)	Uncontrolled

Outfall No.	Outfall Name	Location (Latitude, Longitude)	Receiving Water	Control Status
013	Martin Luther King Way Trunkline Overflow	47.52328, -122.26294	Lake Washington	Controlled
014	Montlake Overflow	47.6471, -122.30486	Lake Washington Ship Canal	Uncontrolled
015	University Regulator	47.64892, -122.31129	Lake Wash Ship Canal (Portage Bay)	Uncontrolled
018	Matthews Park PS Emergency Overflow	47.69745, -122.27265	Lake Washington	Controlled
027a	Denny Way Regulator	47.61813, -122.3608	Elliott Bay/Puget Sound	Uncontrolled
028	King Street Regulator	47.599, -122.33742	Elliott Bay/Puget Sound	Uncontrolled
029	Kingdome (Connecticut St Regulator)	47.59253, -122.3421	Elliott Bay/Puget Sound	Uncontrolled
030	Lander Street Regulator	47.58147, -122.34299	Duwamish River – East Waterway	Uncontrolled
031a,b,c	Hanford #1 Regulator	47.5631, -122.34531	Duwamish River	Uncontrolled
032	Hanford #2 Regulator	47.57722, -122.34278	Duwamish River – East Waterway	Uncontrolled
033	Rainier Avenue PS Emergency Overflow	47.57137, -122.27552	Lake Washington	Controlled
034	E. Duwamish Siphon/Duwamish PS Emergency Overflow	47.56298, -122.34526	Duwamish River	Controlled
035	W. Duwamish Siphon/Duwamish PS Emergency Overflow	47.56322, -122.34825	Duwamish River	Controlled
036	Chelan Avenue Regulator	47.57366, -122.35778	Duwamish River – West Waterway	Uncontrolled
037	Harbor Avenue Regulator	47.5737, -122.36116	Duwamish River – West Waterway	Uncontrolled
038	Terminal 115 Overflow	47.54825, -122.34049	Duwamish River	Uncontrolled
039	Michigan S. Regulator	47.54352, -122.33496	Duwamish River	Uncontrolled
040	8th Avenue South Regulator	47.53364, -122.32263	Duwamish River	Controlled
041	Brandon Street Regulator	47.55466, -122.34083	Duwamish River	Uncontrolled
042	Michigan W. Regulator	47.54156, -122.33499	Duwamish River	Uncontrolled
043	East Marginal Way PS Emergency Overflow	47.53704, -122.31848	Duwamish River	Controlled

Outfall No.	Outfall Name	Location (Latitude, Longitude)	Receiving Water	Control Status
044a	Norfolk Street Regulator	47.51194, -122.29735	Duwamish River	Controlled
045	Henderson Street PS Emergency Overflow	47.52328, -122.26294	Lake Washington	Controlled
048[1]	a. North Beach PS Overflow b. North Beach Inlet	47.704, -122.39233 47.70214, -122.39070	Puget Sound	Controlled
049	30th Avenue N.E. PS Emergency Overflow	47.65669, -122.28759	Lake Washington (Union Bay)	Controlled
052	53rd Ave. SW PS Emergency Overflow	47.5848, -122.40254	Puget Sound	Controlled
054	63rd Ave. SW PS Emergency Overflow	47.57001, -122.41629	Puget Sound	Uncontrolled
055	S.W. Alaska Street Overflow	47.55944, -122.40694	Puget Sound	Controlled
056	Murray PS Emergency Overflow	47.54027, -122.4	Puget Sound	Controlled
057	Barton St PS Emergency Overflow	47.52388, -122.39639	Puget Sound	Uncontrolled

[1]The North Beach Pump CSO facility design approved by Ecology identifies that excess combined sewage may discharge from the pump station wet well as well as from an overflow manhole located upstream of the control facility. Although each overflow location discharged through separate outfalls, Ecology regulates these discharges as a single outfall. The Permittee must report discharges from both locations on the monthly DMR for outfall 048.

As allowed by chapter 173-201A-400 WAC, this permit authorizes a mixing zone for each CSO outfall identified above with a control status of "Controlled". The state's water quality standards exempt this mixing zone from numeric size restrictions for regulated mixing zones as well as limitations related to overlapping mixing zones. In accordance with chapters 173-201A-400(4) and 173-245-015 WAC, this permit does not authorize a mixing zone or discharge from a CSO outfall when doing so causes adverse impacts that threaten characteristic uses of the receiving water, result in an exceedance of the Sediment Management Standards, cause a loss of sensitive or important habitat, or adversely affects public health.

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 the following nine minimum controls (NMC) for CSOs. The Permittee must document compliance with the NMC in the annual CSO report required in Special Condition S11.D.

The Permittee must comply with the following technology-based requirements:

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 maximize use of available storage capacity in the combined collection system in order to reduce the magnitude, frequency, and duration of CSOs.
3. Review and modify, as appropriate, the existing pretreatment program to minimize the water quality impacts of a CSO discharge containing pollutants from non-domestic users. Special Condition S6 of this permit includes applicable pretreatment requirements. Permittees must identify in their annual report any regulated non-domestic discharge that enters the combined system upstream of a CSO outfall.
4. Operate the Permittee's 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 POTW.
5. The Permittee must not discharge combined sewage from CSO outfalls except as a result of precipitation events. This permit prohibits all Dry Weather Overflows. The Permittee must report each dry weather overflow to Ecology immediately per Special Condition S3.E. When it detects a dry weather overflow, the Permittee must immediately begin corrective action 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. As an element of the pollution prevention program, the Permittee must implement best management practices (BMPs) to control the sources of pollutants in stormwater runoff that enters the Permittee's combined sewer system. Ecology's Stormwater Management Manual for Western Washington (2019) contains applicable BMPs the Permittee may implement. The Permittee may also use BMPs contained in other Ecology-approved equivalent stormwater manuals. The Permittee must begin implementing revisions to the pollution prevention program by June 30, 2025, and submit a schedule for full implementation in the CSO annual report due July 31, 2025.

   The pollution prevention program must (1) include all areas served by King County's CSO facilities, (2) involve coordination with other jurisdictions as applicable, (3) include source tracing investigations to find and remove sources of pollutants to combined sewer infrastructure and receiving waters, and (4) include regular cleaning and maintenance of CSO infrastructure and infrastructure owned and/or operated by other jurisdictions that may connect to CSO infrastructure. The Permittee must use

information obtained from the pollution prevention program in CSO basins to inform source control needs and actions. This program must consider BMPs to control pollutants such as, but not limited to, copper, zinc, PCBs, and 6PPD/6PPD-q. The program plan must identify criteria the Permittee will use to assess the effectiveness of BMP and identify the frequency for evaluations and analytical methods used for any monitoring included in the plan. Any monitoring to assess the effectiveness of BMPs for reducing PCBs must use EPA method 1668c. Each annual report must document the results of evaluations completed during the reporting year.

8. Implement and maintain a public notification process to adequately inform the public when and where CSOs occur. The process must include a mechanism to alert all members of the impacted community of the occurrence of CSOs. The process must also adequately communicate the nature and duration of conditions that are potentially harmful for users of receiving waters due to the CSO discharge.
9. Monitor CSO outfalls to characterize CSO impacts and the efficacy of CSO controls. This must include collection of data that the Permittee will use to document the existing baseline conditions, evaluate the efficacy of the technology-based controls, and determine the conditions upon which it will base its long-term control plan, control plan updates, or post-construction monitoring. 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 in the CSS.
    b. Total number of CSO events, and the frequency and duration of CSOs for a representative number of events.
    c. Locations and designated uses of receiving water bodies, including identification of sensitive or important habitat in the vicinity of each CSO outfall.
    d. Water quality data for receiving water bodies.
    e. Water quality impacts directly related to CSOs (e.g., beach closing, restrictions on fishing or shellfish harvesting, contamination of sediments, floatables wash-up episodes, fish kills).

S11.C. Requirements for controlled combined sewer overflows

a. CSOs identified as controlled

Based on historical monitoring data, the CSO outfalls listed in Table 32 as "Controlled" 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 defined below.

b. Performance standards for controlled CSO outfalls

The Permittee must maintain the performance standard of not more than one discharge due to precipitation per year, on average, for each CSO outfall identified as controlled. Ecology evaluates compliance with the performance standard annually based on a 20-year average of discharge events using data derived from calibrated flow modeling and from at-site monitoring. The Permittee must calculate and report in the CSO Annual Report required in Section S11.D the moving 20-year averages of the number of overflow events for each outfall. For outfalls controlled less than 20 years, use monitored data from the years following completion of the control project and modeled data for years prior to the control project. The Permittee must also calculate and report the 5-year moving average using only the most recent monitored data.

c. CSO post-construction monitoring

The Permittee must implement a post-construction compliance monitoring program to verify that discharges from each controlled CSO outfall comply with applicable water quality standards and continue to meet conditions to qualify for a mixing zone. The monitoring must also verify the effectiveness of implemented CSO controls.

The Permittee must implement the CSO Post-Construction Monitoring Plan approved by Ecology on September 28, 2012. As part of each annual report required by Special Condition S11.D, the Permittee must submit a data report containing the results of the monitoring and analysis completed during the reporting year. The data report must conform to the approved CSO Post-Construction Monitoring Plan. If post-construction monitoring includes sediment monitoring, the Permittee must summarize the results of this monitoring in the annual report. It must also submit a separate Sediment Data Report, as required by Special Condition S9.D.

d. Corrective actions for previously controlled CSO outfalls

If the annual average number of events calculated based on a 20-year period according to S11.C.b above exceeds one per year for two or more consecutive annual reporting periods, the Permittee must take corrective actions to restore compliance with the performance standard. This permit requires a tiered response to corrective actions based on the magnitude of exceedance and the length of time the outfall remains out of compliance. In evaluating corrective action options, the Permittee may consider near-term performance, calculated based on the most recent 5 years of discharge data, along with the long-term, 20-year performance period.

Tier I Actions:

The Permittee must initiate Tier I corrective actions for any previously controlled outfall that fails to comply with the performance standard for two consecutive years and whose calculated discharge frequency is between 1.0 and 2.0 discharges per year. Tier I actions must, at a minimum, include the following:

- Review monitoring practices to verify accuracy of the data used to calculate the average number of discharges. Implement changes to the monitoring as necessary to improve the accuracy.
- Review maintenance practices for the collection system in the vicinity of the outfall to verify proper operation of the system. Implement system cleaning, repairs, or adjustments as necessary to restore to proper operation.

The Permittee must submit a Tier I Corrective Action report to Ecology to document the actions it takes in response to non-compliance with the performance standard. The Permittee must submit the report within 60 days of completing the analysis and implementing necessary corrections.

Tier II Actions:

The Permittee must initiate Tier II corrective actions under the following situations:

- any outfall requiring Tier I action that fails to comply with the performance standard for a third consecutive year, or
- any previously controlled outfall that fails to comply with the performance standard for two consecutive years and whose calculated discharge frequency exceeds 2.0 discharges per year

Tier II actions must, at a minimum, review operating strategies for the collection system and identify opportunities to optimize operations. Within 60 days of completing the optimization assessment, the Permittee must submit a Tier II Corrective Action Report to Ecology that identifies the specific optimization strategies it will implement along with an implementation schedule. If the Permittee is unable to identify system optimization strategies, or if implementation will take more than one year, the Permittee must begin Tier III actions described below.

Tier III Actions:

The Permittee must initiate Tier III corrective actions under the following conditions:

- when the Permittee is unable to identify a Tier II Corrective Action or unable to implement a Tier II Corrective Action within one year, or
- for any previously controlled outfall that remains out of compliance for two years after implementing Tier II corrective actions.

Ecology recognizes that Tier III Corrective Actions generally require design and construction of new or modified control strategies. Within 90 days of submitting the annual report that identifies an outfall as qualifying for Tier III Corrective Actions, the Permittee must submit a report to Ecology identifying the operational or structural changes it will evaluate along with a preliminary schedule for the planning, design, and construction of necessary changes. Any previously controlled outfall that triggers Tier III Corrective Actions will be reclassified with a status of “Uncontrolled”. Ecology will use the Tier III Corrective Action Report as the basis for developing a compliance

schedule for restoring the outfall to compliance with the CSO performance standard. Ecology will place this compliance schedule in an administrative order or as a condition of a future permit.

S11.D. Combined sewer overflow reporting

a. Monthly reporting

The Permittee must submit discharge monitoring reports for all untreated CSO discharges from the Permittee's collection system. Special Condition S2.C specify monitoring requirements for untreated CSOs. Special Condition S3.A specifies requirements for monthly DMR submittals.

b. Annual reporting

The Permittee must submit a CSO Annual Report to Ecology for review and approval 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 include the following information:

1. A summary of the number and volume of untreated discharge events per outfall for that year.
2. A summary of the 20-year moving average number of untreated discharge events per outfall, calculated once annually.
3. An explanation of the previous year's CSO reduction accomplishments.
4. A list of CSO reduction projects planned for the next year.
5. Documentation of compliance with the Nine Minimum Controls described in Special Condition S11.B.
6. A detailed description of the pollution prevention program required by NMC-7 in Special Condition S11.B. The report must describe the appropriate BMPs along with the legal authority and administrative procedures the Permittee will use to ensure effective implementation of the program. 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 developing the program.
7. The results of any post-construction monitoring completed during the reporting period.
8. A detailed discussion of any corrective action projects implemented according to the adaptive management requirements in Special Condition S11C.d.
9. A summary of wet weather operation, as authorized by Special Condition S10 of this permit, that occurred during the reporting period.

10. A summary of performance of each CSO treatment plant along with an assessment of each treatment plant's compliance with annual effluent limits.

S11.E. Engineering reports and plans and specifications for CSO reduction projects

The Permittee must submit to Ecology an engineering report for each 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 event(s) per year per associated outfall after the CSO reduction construction project has been completed.
3. Identify the potential hydraulic impact(s) of the project on downstream conveyance and treatment facilities.

For each 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.

Nothing in this condition is intended to revise or replace engineering document requirements listed in King County's 2013 federal CSO Consent Decree, Civil Action No. 2:13-cv-677.

S11.F. Combined sewer overflow reduction plan amendment

In accordance with the requirements of WAC 173-245-090(2), the Permittee must submit an amendment of its CSO Reduction Plan to Ecology for review and approval by December 1, 2028. The amendment must:

1. Assess the effectiveness of CSO reduction projects completed to date. This assessment must include identifying where CSO reduction projects have changed the controlled status of any CSO outfall from "Uncontrolled" to "Controlled". A "Controlled" CSO outfall must comply with the performance standard defined in Special Condition S11.C.b.
2. For outfalls that do not meet the performance standard for controlled CSOs, the Permittee must include a list of List all project tasks and milestones the Permittee will accomplish in the next five-year permit term.
3. The CSO Control Plan Amendment may not propose changes to the project list or implementation schedule in the approved Long Term Control Plan unless modified according to allowances in King County's 2013 federal CSO Consent Decree, Civil Action No. 2:13-cv-677.

S12. CSO Solids Characterization Study

The Permittee must submit a study that characterizes the solids discharged from the following outfalls:

Table 33 – CSO outfalls for solids characterization study

Outfall No.	Outfall Name	Location (Latitude, Longitude)	Receiving Water
028	King Street Regulator	47.599, -122.33742	Elliott Bay/Puget Sound
029	Kingdome (Connecticut St Regulator)	47.59253, -122.3421	Elliott Bay/Puget Sound
030	Lander Street Regulator	47.58147, -122.34299	Duwamish River – East Waterway
032	Hanford #2 Regulator	47.57722, -122.34278	Duwamish River – East Waterway
036	Chelan Avenue Regulator	47.57366, -122.35778	Duwamish River – West Waterway

The purpose of this study is to characterize the pollutants associated with settleable solids that may discharge in untreated CSOs. By December 31, 2024, The Permittee must submit a report to document the results of solids sampling completed prior to 2024. The submission must include:

1. A copy of the sampling and quality assurance plans used by the Permittee for this study.
2. A report summarizing the results of the study. Parameters of interest for this study include grain size, total organic carbon, metals, PCBs, and semi-volatile organic compounds such as PAHs and phthalates.
3. A data file (in Excel format) containing all data collected for this study.

If Ecology's review of the study determines that it does not characterize solids sufficiently to represent the quality of CSOs discharged from the outfalls in Table 33, it will notify the Permittee in writing of the deficiencies. If deficiencies are found, the Permittee must submit a plan by April 1, 2028 to outline the protocols for a follow up study.

S13. Acute toxicity

S13.A. Testing 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 2026, no later than September 30, 2026, and once during the first quarter of 2027, no later than March 31, 2027.
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:

Table 34 – Acute Toxicity Tests

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, 2026 (for third quarter 2026 testing) and May 15, 2027 (for first quarter 2027 testing). The Permittee must also summarize the results in the next application for permit renewal.

S13.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 3.4% 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.

S14. Chronic toxicity

S14.A. Testing 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 2026, no later than December 31, 2026, and once during the second quarter of 2027, no later than June 30, 2027.
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 3.4% 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/600/4-90/001.
4. Submit the results to Ecology electronically through the Water Quality Permitting Portal – Permit Submittals application by February 15, 2026 (for fourth quarter 2026 testing) and August 15, 2027 (for second quarter 2027 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:

Table 35 – Saltwater Chronic Test

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

S14.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 3.4% 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.

S15. Elliott West CSO Treatment Plant Improvements

S15.A. Compliance schedule for improvements

The Permittee must plan and design improvements to the Elliott West CSO Treatment plant necessary to bring the facility into compliance with the terms and conditions of this permit. By the dates tabulated below, the Permittee must complete the following tasks. In addition, the

Permittee must submit a report by April 1st of each year describing its progress in completing the tasks listed below. The report must, at a minimum, include the following:

- Whether it completed the task and, if not, the date on which it expects to complete the task.
- The reasons for any delays it has encountered and the steps it is taking to return the project to the established schedule.

Table 36 – Compliance Schedule

Tasks	Date Due
1. Submit a draft engineering report to Ecology for review. The engineering report must describe the modifications required to bring the Elliott West CSO Treatment Plant effluent into compliance with its permitted limits and identify the anticipated construction schedule necessary to complete the project by December 31, 2031.	June 30, 2024
2. Submit a final engineering report to Ecology for review and approval.	June 30, 2025
3. Submit for Ecology review the 60% draft plans and specifications that provide the detailed design requirements for facility improvements, as described in the approved engineering report.	June 30, 2026
4. Submit 90% draft plans and specifications for Ecology review.	June 30, 2027
5. Submit final plans and specifications for the facility improvement project to Ecology for review and approval.	December 31, 2027
6. Complete bidding for construction of the approved improvement project.	May 30, 2028

S15.B. Requirements for engineering documents

The following requirements apply to the engineering documents required above.

1. Engineering reports must meet the requirements of 173-240-060 WAC and be approved by Ecology prior to construction. The report must fully describe the improvements necessary to ensure that the Elliott West CSO Treatment Facility complies with the requirements of this permit and 173-245 WAC for "at-site" CSO treatment. The engineering report must demonstrate that the proposed facility design represents "all known, available, and reasonable treatment" for at-site CSO treatment and that discharges from the facility will comply with appropriate numeric water quality-based limits.
2. The report must contain any appropriate requirements as described in the *Criteria for Sewage Works Design* (Washington State Department of Ecology, Publication No. 98-37 WQ, 2008

3. The Permittee must prepare and submit approvable **plans and specifications** to Ecology for review and approval in accordance with chapter 173-240-070 WAC and 173-245-050 WAC.

S16. Henderson/MLK CSO Treatment Plant – Copper Reduction Assessment

The Permittee must assess copper discharges from the Henderson/MLK CSO treatment plant and submit a Copper Reduction Assessment Report to Ecology by November 1, 2028. As part of the assessment, the Permittee must:

1. Evaluate sample reliability/accuracy of copper measurements, including potential sample interferences, from the Henderson/MLK 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 for addressing copper discharges from the Henderson/MLK CSO treatment plant. The report must include a schedule for completing improvements needed to meet the final water quality-based limit for this facility by December 1, 2030. If the Permittee determines that achieving this date is not possible, the report must identify the improvements they can make by this date and include clear justification for an extended compliance date.

S17. Application for permit renewal or modification for facility changes

The Permittee must submit an application for renewal of this permit by December 1, 2028.

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 40 CFR 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, Analytical Methods, Detection Levels and Quantitation Levels

The Permittee must use the specified analytical methods, detection levels (DLs)[1] and quantitation levels (QLs)[2] in the following table for permit and application required monitoring of influent and effluent 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 level (MDL) and a quantitation level (QL) to Ecology with appropriate laboratory documentation when the detection levels are too high to provide results near or below criteria (or applicable permit limits).

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.

Appendix A Table 1 – Conventional Pollutants

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (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, 9221F SM 9222D	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

Appendix A Table 2 - Nonconventional Pollutants

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified
Alkalinity, Total		SM2320-B		5 mg/L as $CaCO_3$
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
E.coli		SM 9221B, 9221F, 9223B	N/A	Specified in method; sample aliquot dependent
Enterococci		EPA 1600 SM 9230B, 9230C, 9230D,	N/A	Specified in method; sample aliquot dependent
Flow		Calibrated device		
Fluoride	16984-48-8	SM4500-F E	25	100
Hardness, Total		SM2340B		200 as $CaCO_3$
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-NO_3-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

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified
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-S2F/D/G		0.2 mg/L
Sulfite (as mg/L SO_3)		SM4500-SO3B		2 mg/L
Temperature		Analog recorder or micro-recording devices (thermistors)		0.2°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 SM 9222B	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

Appendix A Table 3 - Priority Pollutants: Metals, Chromium (hex), Cyanide & Total Phenols

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified
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

Appendix A Table 4 - Priority Pollutants: Acid Compounds

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified
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

Appendix A Table 5 - Priority Pollutants: Volatile Compounds

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified
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

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified
Chloroethane	16	75-00-3	624/601	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	624/601	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
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/SM6200B	1.0	2.0

Appendix A Table 6 - Priority Pollutants: Base/Neutral Compounds

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified
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(k)fluoranthene (11,12-benzofluoranthene) [7]	75	207-08-9	610/625.1	2.5	7.5
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-chloro-1-methylethyl)Ether (Bis(2-chloroisopropyl)ether) [8]	42	108-60-1	625.1	5.7	17.1
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)anthracene (1,2,5,6-dibenzanthracene)	82	53-70-3	625.1	2.5	7.5
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/625.1	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 Level (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified
Hexachlorocyclopentadiene	53	77-47-4	1625B/625.1	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
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
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

Appendix A Table 7 - Base/Neutral Compounds – Ecology PBTs

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified
Benzo(j)fluoranthene [7]	205-82-3	625	0.5	1.0
Benzo(r,s,t)pentaphene	189-55-9	625	1.3	5.0
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,e)pyrene	192-65-4	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene	189-64-0	625M	2.5	10.0
3-Methyl cholanthrene	56-49-5	625	2.0	8.0
Perylene	198-55-0	625	1.9	7.6

Appendix A Table 8 – Dioxin

Priority Pollutant	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection Levels (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified
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

Appendix A Table 9 - Pesticides and PCBs

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
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

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
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 [9]	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 [10]	106	53469-21-9	608.3	0.065	0.195
PCB-1254	107	11097-69-1	608.3	0.065	0.195
PCB-1221	108	11104-28-2	608.3	0.065	0.195
PCB-1232	109	11141-16-5	608.3	0.065	0.195
PCB-1248	110	12672-29-6	608.3	0.065	0.195
PCB-1260	111	11096-82-5	608.3	0.065	0.195
PCB-1016 [10]	112	12674-11-2	608.3	0.065	0.195
Toxaphene	113	8001-35-2	608.3	240 ng/L	720 ng/L

Footnotes

[1] Detection level (DL) – or method detection limit means the minimum concentration of an analyte (substance) that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results as determined by the procedure given in 40 CFR part 136, Appendix B.

[2] Quantitation Level (QL) – also known as Minimum Level (ML) – The term ''minimum level'' refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (DL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the DL in a method, or the DL determined by a laboratory, by a factor of 3. For the purposes of NPDES compliance monitoring, EPA considers the following terms to be synonymous: ''quantitation limit," ''reporting limit,'' and ''minimum level''.

[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] Northwest Total Petroleum Hydrocarbons Diesel Extended Range OR NWTPH Dx – Analytical Methods for Petroleum Hydrocarbons https://apps.ecology.wa.gov/publications/documents/97602.pdf

[5] Northwest Total Petroleum Hydrocarbons Gasoline Extended Range OR NWTPH Gx – Analytical Methods for Petroleum Hydrocarbons https://apps.ecology.wa.gov/publications/documents/97602.pdf

[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] Bis(2-Chloro-1-Methylethyl) Ether – This compound was previously listed as Bis(2-Chloroisopropyl) Ether (39638-32-9)

[9] 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.

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