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**National Pollutant Discharge Elimination System  
Waste Discharge Permit No. WA0032182**

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

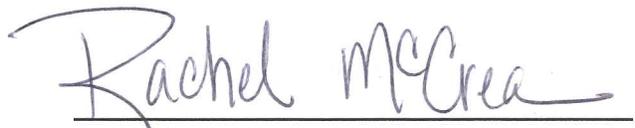
In compliance with the provisions of The State of Washington Water Pollution Control Law, Chapter 90.48 Revised Code of Washington, the State of Washington Reclaimed Water Act, Chapter 90.46 Revised Code of Washington, and The Federal Water Pollution Control Act (The Clean Water Act) Title 33 United States Code, Section 1342 et seq.

**King County Department of Natural Resources and Parks,  
Wastewater Treatment Division**

King Street Center, KSC-NR-700  
201 South Jackson Street  
Seattle, Washington 98104-3855

is authorized to produce and distribute reclaimed water and to discharge water in accordance with the Special and General Conditions that follow.

<u>Plant Name and Location:</u> Carnation Wastewater Treatment Plant 4405 Larson Avenue Carnation, WA 98014	<u>Reclaimed Water Classification:</u> Class A
<u>Treatment Type:</u> Activated Sludge with Hollow Fiber Membrane filtration. Disinfection with ultraviolet light.	<u>Reclaimed Water Beneficial Use:</u> Enhancement of Category IV wetland at the Chinook Bend Natural Area
	<u>Alternate Discharge Receiving Water:</u> Snoqualmie River



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## Summary of Permit Report Submittals

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

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report (DMR)	Monthly	December 15, 2021
S3.A	Discharge Monitoring Report (DMR)	Annual	January 15, 2023
S3.C	Annual Reclaimed Water Summary Report	Annual	March 15, 2022
S3.G	Reporting Permit Violations	As necessary	
S4.B	Plans for Maintaining Adequate Capacity	As necessary	
S4.D	Notification of New or Altered Sources	As necessary	
S5.E	Bypass Notification	As necessary	
S5.G	Operations and Maintenance Manual Update	1/permit cycle, if needed	December 29, 2023
S6.A.4	Pretreatment Report	1/year	April 30, 2022
S8	Outfall Evaluation	1/permit cycle	October 31, 2025
S9	Applications for Permit Renewal	1/permit cycle	May 1, 2026
R1.A	Use Agreement/Permit Update	As Necessary	
R2.1	Wetland Water Quality Study - QAPP	1/permit cycle	November 1, 2022
R2.2	Wetland Water Quality Study – Final Report	1/permit cycle	November 1, 2025
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. Water quality limits

#### S1.A. Reclaimed water limits

All activities authorized by this permit for the production, distribution and use of reclaimed water must comply with the terms and conditions of this permit. Beginning on the effective date of this permit, the Permittee may produce and distribute Class A reclaimed water for the beneficial use of enhancing the Category IV wetland in the Chinook Bend Natural Area at the location identified below. The distribution and use of reclaimed water containing any of the constituents listed in the following tables at concentrations in excess of the identified levels violates the terms and conditions of this permit. See condition R1 of this permit for additional distribution and use constraints.

This permit expresses limits based on routine monthly monitoring (Table S1.A.1), annual average calculations (Table S1.A.2), and periodic maintenance-related discharges (Table S1.A.3).

1. Water distributed for enhancement of the Chinook Bend Wetland must comply with the following limits on a monthly basis.

**Table S1.A.1 Monthly Reclaimed Water Limits – Chinook Bend Wetland**  
**Outfall 002: Latitude 47.666389 Longitude 121.926111**

*Compliance point: Final Reclaimed Water*

Parameter	Average Monthly <sup>a</sup>	Average Weekly <sup>b</sup>	Daily Maximum <sup>c</sup>
Carbonaceous Biochemical Oxygen Demand (CBOD <sub>5</sub> )	25 milligrams/liter (mg/L) 85% removal of influent CBOD <sub>5</sub>	40 mg/L	N/A
CBOD <sub>5</sub> (November – July)	100 pounds per day (lbs/day)	160 lbs/day	N/A
CBOD <sub>5</sub> (August – October)	20.1 lbs/day	N/A	25 lbs/day
Total Suspended Solids (TSS)	30 mg/L 85% removal of influent TSS	45 mg/L	N/A
TSS	120 lbs/day	180 lbs/day	N/A
Total Nitrogen <sup>d</sup>	14.8 mg/L - N	22.2 mg/L - N	N/A
Ammonia (as N) (August – October)	4.1 lbs/day	N/A	8.4 lbs/day

**Table S1.A.1 continued**

*Compliance point: Final Reclaimed Water*

Parameter	Daily Minimum	Daily Maximum
Dissolved Oxygen (DO)	≥ 0.2 mg/L <sup>e</sup>	N/A
pH <sup>f</sup>	6.0 standard units	9.0 standard units

*Compliance point: Membrane Effluent – Prior to Disinfection*

Parameter	Average Monthly	Instantaneous Maximum
Turbidity	0.2 Nephelometric Turbidity Units (NTU)	0.5 NTU <sup>g</sup>

*Compliance point: Disinfected Reclaimed Water Prior to Distribution*

Parameter	7-Day Median <sup>h</sup>	Sample Maximum <sup>i</sup>
Total Coliform	2.2 CFU/100 mL	23 CFU /100 mL

**Table S1.A.1 Footnotes**

a	Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured during the month.
b	Average weekly discharge limit means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges' measured during that week.
c	Daily maximum effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day. For pollutants with limits expressed in units of mass, calculate the daily discharge as the total mass of the pollutant discharged over the day. This does not apply to pH or temperature.
d	Total nitrogen is calculated as the sum of total Kjeldahl nitrogen (TKN) plus nitrite and nitrate.
e	The standard for dissolved oxygen is “must be measurably present”. The limit for dissolved oxygen is set at the minimum quantitation level listed in Appendix A. The daily minimum limit is the lowest allowable average concentration measured during a calendar day.
f	The daily reportable pH values recorded using continuous sampling devices must remain within the listed minimum and maximum limit range.
g	The maximum turbidity limit is defined as the value not to be exceeded by a continuous measurement. The Permittee must report the maximum instantaneous turbidity that is recorded for longer than 5 consecutive minutes. Durations of less than or equal to 5 minutes over the sample maximum are not permit violations.
h	Determine the 7-day median value using all of the bacteriological results of the last 7 days of analyses (the reporting day and the previous 6 days).
i	The number of total coliform organisms must not exceed the sample maximum limit value in any single sample. If the Permittee collects multiple samples in a single day, it must report the highest sample value of all samples taken as the sample maximum.

- In addition to the monthly limits shown above, the release of reclaimed water to the Chinook Bend Wetland must not exceed the following limits on an annual average basis. The compliance point for the following limits is the final reclaimed water.

**Table S1.A.2 Annual Average Reclaimed Water Limits – Chinook Bend Wetland  
 Outfall 002: Latitude 47.666389 Longitude 121.926111**

Parameter	Annual Average Limit
Flow <sup>a</sup>	0.321 MGD
CBOD <sub>5</sub>	17 mg/L
TSS	20 mg/L
Total Kjeldahl Nitrogen (TKN) (as N)	3 mg/L
Total Phosphorous (as P)	4.7 mg/L

*<sup>a</sup>The daily flow limit is equivalent to a hydraulic loading of 3 cm/day distributed over the 10 acre (4.05 ha) wetland site.*

**Table S1.A.3 Maximum chlorine limit**

- On a periodic basis, the Permittee may use sodium hypochlorite to clean and maintain the distribution line between the permitted facility and the Chinook Bend Wetland. The Permittee must divert all reclaimed water that exceeds the total residual chlorine limit listed below, as measured at the diversion valve vault adjacent to the Carnation Farm Road Bridge, for discharge to the Snoqualmie River through outfall 001. See special condition S1.B for limits applicable to discharges from outfall 001. The Permittee may redirect water to the wetland once the residual chlorine concentration returns below the following limit.

**Table S1.A.3 Maximum Chlorine Limit – Chinook Bend Wetland  
 Outfall 002: Latitude 47.666389 Longitude 121.926111**

Parameter	Maximum concentration
Total Residual Chlorine <sup>e</sup>	19 µg/L

**S1.B. Wastewater effluent limits**

As required by special condition S5.B.1, the Permittee must either store at the treatment facility or discharge to the Snoqualmie River any water not treated to meet the reclaimed water limits in special condition S1.A of this permit. To enable this discharge beginning on the effective date of this permit, the Permittee may discharge treated domestic wastewater to the Snoqualmie River at the permitted location subject to compliance with the following limits.

**Table S1.B.1 Monthly discharge limits – Snoqualmie River**  
**Outfall 001: Latitude 47.665640 Longitude 121.925215**

Parameter	Average Monthly	Average Weekly	Daily Maximum
CBOD <sub>5</sub>	25 mg/L 85% removal of influent CBOD <sub>5</sub>	40 mg/L	N/A
CBOD <sub>5</sub> (November – July)	100 pounds per day (lbs/day)	160 lbs/day	N/A
CBOD <sub>5</sub> (August – October)	20.1 lbs/day	N/A	25 lbs/day
TSS	30 mg/L 85% removal of influent TSS	45 mg/L	N/A
TSS	120 lbs/day	180 lbs/day	N/A
Ammonia (as N) (August – October)	4.1 lbs/day	N/A	8.4 lbs/day
Temperature (June – September)	N/A	N/A	33 °C
Total Residual Chlorine <sup>a</sup>	N/A	N/A	741 µg/L

Parameter	Minimum	Maximum
pH	6.0 standard units	9.0 standard units
Parameter	Monthly Geometric Mean	Weekly Geometric Mean
Fecal Coliform Bacteria <sup>b</sup>	200/100 milliliter (mL)	400/100 mL

**Table S1.B.1 Footnotes**

a	Chlorine limits apply only during periods when chlorine is used for partial or full disinfection of the effluent. When UV disinfection is the only disinfection method used, chlorine limits do not apply. When not using chlorine for disinfection during the monitoring period, enter qualifier code "M" into the WQWebDMR form.
b	Ecology provides directions to calculate the monthly and the weekly geometric mean in publication No. 04-10-020, Information Manual for Treatment Plant Operators available at: <a href="https://apps.ecology.wa.gov/publications/documents/0410020.pdf">https://apps.ecology.wa.gov/publications/documents/0410020.pdf</a>

**S1.C. Mixing zone authorization**

**Mixing zone for Outfall 001 (Snoqualmie River)**

The paragraphs below define the maximum boundaries of the mixing zones.

**Chronic mixing zone**

The width of the chronic mixing zone is limited to a distance of 50 feet. The length of the chronic mixing zone extends 305 feet upstream and 100 feet downstream of the outfall. The mixing zone extends from the bottom to the top of the water column. The

concentration of pollutants at the edge of the chronic zone must meet chronic aquatic life criteria and human health criteria.

**Acute mixing zone**

The width of the acute mixing zone is limited to a distance of 50 feet in any horizontal direction from the outfall. The length of the acute mixing zone extends 30.5 feet upstream and 10 feet downstream of the outfall. 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 S1.C.1 Available Dilution (dilution factor) – Outfall 001**

Mixing zone	Dilution
Acute Aquatic Life Criteria	39
Chronic Aquatic Life Criteria	375
Human Health Criteria - Carcinogen	520
Human Health Criteria - Non-carcinogen	1315

**S2. Monitoring requirements**

**S2.A. Monitoring schedule**

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

- 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.

**Table S2.A.1 Wastewater influent monitoring schedule**

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow	MGD	Continuous <sup>a</sup>	Metered/recorded
CBOD <sub>5</sub>	mg/L	2/week	24-hr Composite <sup>b</sup>
CBOD <sub>5</sub>	lbs/day	2/week	Calculated <sup>c</sup>
BOD <sub>5</sub>	mg/L	2/month	24-hr Composite
BOD <sub>5</sub>	lbs/day	2/month	Calculated <sup>c</sup>
TSS	mg/L	2/week	24-hr Composite
TSS	lbs/day	2/week	Calculated <sup>c</sup>

- Disinfection process monitoring:** The Permittee must monitor the turbidity of the membrane effluent prior to UV disinfection. Monitor UV dose using the control system for the UV equipment.

**Table S2.A.2 Disinfection process monitoring schedule**

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Turbidity <sup>d</sup>	NTU	Continuous	Metered/recorded
UV Dose <sup>e</sup>	mJ/cm <sup>2</sup>	Continuous	Metered/recorded

3. **Final treated water quality:** Monitor the final treated water quality as the water flow exits the disinfection system and before it enters the effluent standpipe. When operating the facility with sodium hypochlorite as the disinfectant, the Permittee must take effluent samples for the CBOD<sub>5</sub> analysis before the disinfection process, or it must dechlorinate and reseed the sample prior to analysis.

**Table S2.A.3 Final treated water quality monitoring schedule**

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow	MGD	Continuous	Metered/recorded
CBOD <sub>5</sub>	mg/L	2/week	24-hr Composite
CBOD <sub>5</sub>	lbs/day	2/week	Calculated <sup>c</sup>
CBOD <sub>5</sub>	% removal	1/month	Calculated <sup>f</sup>
TSS	mg/L	2/week	24-hr Composite
TSS	lbs/day	2/week	Calculated <sup>c</sup>
TSS	% removal	1/month	Calculated <sup>f</sup>
pH (daily minimum and maximum) <sup>g</sup>	Standard Units	Continuous	Metered/recorded
Dissolved Oxygen	mg/L	1/day	grab
Ammonia	mg/L as N	1/week	24-hr Composite
Ammonia	lbs/day as N	1/week	Calculated <sup>c</sup>
TKN	mg/L as N	1/week	24-hr Composite
Nitrate+Nitrite	mg/L as N	1/week	24-hr Composite
Total Nitrogen	mg/L as N	1/week	24-hr Composite
Total Phosphorous	mg/L as P	1/week	24-hr Composite
Soluble Reactive Phosphorus	mg/L as P	1/week	24-hr Composite
Total Coliform <sup>h</sup>	CFU/100 mL	1/day	grab
Total coliform – 7-day Median <sup>i</sup>	CFU /100mL	1/day	Calculated
Temperature (daily maximum) <sup>j</sup>	°C	Continuous, as needed June-September	Metered/recorded
Fecal Coliform <sup>k</sup>	CFU/100 mL	1/week, as needed	grab
<i>E. Coli</i> <sup>k</sup>	CFU/100 mL	1/week, as needed	grab

4. **Residual chlorine monitoring:** For Outfall 002, this monitoring applies only when the Permittee uses sodium hypochlorite for distribution line cleaning and maintenance. During these periods, the Permittee must monitor residual chlorine at the valve vault prior to release to the Chinook Bend Wetland. For Outfall 001, this monitoring applies only when the facility discharges to the Snoqualime River and the effluent contains residual chlorine.

**Table S2.A.4 Residual chlorine monitoring schedule**

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Chlorine (Total Residual) <sup>1</sup>	µg/L	1/day, as needed	grab

5. **Annual monitoring summary:** Beginning January 1, 2022, the permittee must calculate the annual average value for each parameter listed below using the individual results from sampling required in Table S2.A.3 above.

**Table S2.A.5 Annual summary monitoring schedule**

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow	MGD	1/year	Calculated
CBOD <sub>5</sub>	mg/L	1/year	Calculated
TSS	mg/L	1/year	Calculated
TKN	mg/L as N	1/year	Calculated
Total Phosphorous	mg/L as P	1/year	Calculated

6. **Permit renewal application monitoring requirements:** This monitoring provides data required by NPDES and State Reclaimed Water permit renewal applications for parameters that do not otherwise have routine sampling requirements. The Permittee must record the wastewater treatment plant flow discharged on the day it collects the sample for priority pollutant testing.

**Table S2.A.6 Permit renewal application monitoring schedule**

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Oil and Grease	mg/L	1/year	Grab
Alkalinity	mg/L as CaCO <sub>3</sub>	1/year	Grab
Total Dissolved Solids	mg/L	1/year	Grab
Total Hardness	mg/L as CaCO <sub>3</sub>	1/year	Grab
Priority Pollutants (PP) – Total Metals	µg/L; nanograms per liter (ng/L) for mercury	1/year	24-Hour composite, Grab for mercury and hexavalent chromium

**Footnotes for monitoring tables**

a	Continuous means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance.
b	24-hour composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.
c	Calculate pollutant 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
d	Effluent turbidity analysis must be performed by a continuous recording turbidimeter. The Permittee must report the maximum value that exceeds 5 minutes.
e	Report the minimum UV dose for each calendar day, as recorded by the UV control system for each active treatment unit.
f	$\% \text{ removal} = \frac{\text{Influent concentration (mg/L)} - \text{Effluent concentration (mg/L)}}{\text{Influent concentration (mg/L)}} \times 100$ <p>Calculate the percent (%) removal of CBOD<sub>5</sub> and TSS using the above equation.</p>
g	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.
h	Report a daily numerical value for total coliforms. Do not report a result as too numerous to count (TNTC).
i	Calculate and report the median value of Total Coliform results on a daily basis using the results of daily samples taken on the reporting day and the six previous days when reclaimed water was produced
j	Temperature monitoring applies only when discharging through outfall 001. Report the maximum daily temperature recorded through continuous monitoring. Continuous monitoring instruments must achieve an accuracy of 0.2 degrees C and the Permittee must verify accuracy annually.
k	Monitoring of Fecal Coliform and E. Coli is required only when discharge to the Snoqualmie River via outfall 001. Report a numerical value for fecal coliforms following the procedures in Ecology's <i>Information Manual for Wastewater Treatment Plant Operators</i> , Publication Number 04-10-020 available at: <a href="https://apps.ecology.wa.gov/publications/documents/0410020.pdf">https://apps.ecology.wa.gov/publications/documents/0410020.pdf</a> . Do not report a result as too numerous to count (TNTC).
l	The Permittee must monitor total residual chlorine concentrations only when using sodium hypochlorite for disinfection purposes or when using sodium hypochlorite for cleaning and maintenance of the reclaimed water distribution line. When sodium hypochlorite is not in use, during the monitoring period, enter qualifier code "M" into the WQWebDMR form to report that conditional monitoring was not required.

**S2.B. Sampling and analytical procedures**

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

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

### **S2.C. Flow measurement, and continuous monitoring devices**

The Permittee must:

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

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

### **S2.E. Request for reduction in monitoring**

The Permittee may request a reduction of the sampling frequency after twelve (12) months of monitoring. Ecology will review each request and at its discretion grant the request when it reissues the permit or by a permit modification.

The Permittee must:

1. Provide a written request.
2. Clearly state the parameters for which it is requesting reduced monitoring.
3. Clearly state the justification for the reduction.

### **S3. Reporting and recording requirements**

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

#### **S3.A. Discharge monitoring reports**

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

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic discharge monitoring report (DMR) form provided by Ecology within the Water Quality Permitting Portal. Include data for each of the parameters tabulated in Special Condition S2 and as required by the form. Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.
2. 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 as an attachment using WQWebDMR electronic copies of all laboratory reports for analyses done by contract laboratories. The contract laboratory reports must 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, annual, etc.) at the reporting schedule identified below. The Permittee must:
  - a. Submit **monthly** DMRs by the 15<sup>th</sup> day of the following month.
  - b. Submit **annual DMRs** by January 15<sup>th</sup> of each for the previous calendar year. The annual sampling period is the calendar year.
5. Enter the “No Discharge” reporting code for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.
6. Report single analytical values below detection as “less than the detection level (DL)” by entering < followed by the numeric value of the detection level (e.g. < 2.0) on the DMR. If the method used did not meet the minimum DL and quantitation level (QL) identified in the permit, report the actual QL and DL in the comments or in the location provided.
7. Report single analytical values between the detection level (DL) and the quantitation level (QL) by entering the estimated value, the code for estimated value/below quantitation limit (j) and any additional information in the comments. Submit a copy of the laboratory report as an attachment using WQWebDMR.

8. **Not report zero** for bacteria monitoring. Report as required by the laboratory method.
9. Report the highest value of any **total coliform** sample for each day if multiple samples were taken in one day.
10. Calculate the 7-day median values for **total coliform** using:
  - a. The reported numeric value for all daily total coliform samples measured above the detection value except when it took multiple samples in one day. If the Permittee takes multiple samples in one day it must use the highest value for the day in the 7-day median calculation.
  - b. The detection value for those samples measured below detection.
11. Calculate and report an arithmetic average value for each day for **fecal coliform and E. Coli** bacteria if multiple samples were taken in one day.
12. Calculate the geometric mean values for **fecal coliform and E. Coli** bacteria (unless otherwise specified in the permit) using:
  - a. The reported numeric value for all **fecal coliform or E. Coli** bacteria samples measured above the detection value except when it took multiple samples in one day. If the Permittee takes multiple samples in one day it must use the arithmetic average for the day in the geometric mean calculation.
  - b. The detection value for those samples measured below detection.
13. 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.
14. Calculate average values and calculated total values (unless otherwise specified in the permit) using:
  - a. The reported numeric value for all parameters measured between the detection value and the quantitation value for the sample analysis.
  - b. One-half the detection value (for values reported below detection) if the lab detected the parameter in another sample from the same monitoring point for the reporting period.
  - c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for the reporting period.
15. Report single-sample grouped parameters (for example: priority pollutant metals) 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 paper reports to Ecology at:

Water Quality Permit Coordinator  
Department of Ecology  
Northwest Regional Office  
PO Box 330316  
Shoreline, WA 98133-9716

### **S3.C. Annual reclaimed water summary report**

The Permittee must submit an annual report by March 15th of each year using the Annual Report Questionnaire Form provided by Ecology in the Water Quality Permitting Portal – Permit Submittals application. The Permittee will generally provide summaries of reclaimed water production topics for the previous calendar year in the questionnaire. Summary topics include, but may not be limited to:

- Number of days of reclaimed water production and distribution.
- Total volume of reclaimed water produced and distributed.
- Total volume of reclaimed water distributed to the wetland enhancement use category authorized in special condition S1.A.
- Total volume of off-spec reclaimed water diverted for disposal or retreatment, if any.
- Total volume of reclaimed water diverted from authorized use locations due to distribution system maintenance or repair, if any.
- Number of reclaimed water quality limit violations reported on monthly DMRs, if any.

In addition to providing the data listed above, the questionnaire will require the Permittee to upload supplemental summary documents that provide the following information:

- The annual volume of reclaimed water distributed to each use location.
- Description of the circumstances that led to the disposal of off-spec reclaimed water along with a description of corrective actions taken.

### **S3.D. 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.E. 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.F. 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.G. 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 Local Health Jurisdiction (at the numbers listed below), all:

- Failures of the disinfection system.
- Any other failure of the reclaimed water treatment system resulting in the distribution or discharge of improperly treated water.
- Plant bypasses resulting in distribution or discharge of improperly treated water.
- Any other failures of the sewage system owned and operated by the Permittee (pipe breaks, etc).

Northwest Regional Office	206-594-0000
Public Health of Seattle- King County	206-477-8050

**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 water quality limits in S1 of this permit (See Part S5.F, “Bypass Procedures”).
3. Any upset that causes an exceedance of water quality limits in S1 of this permit (See G.15, “Upset”).
4. Any violation of a maximum daily or instantaneous maximum water quality limits 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 water quality limit in the permit.

**c. Report within five days**

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

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

**d. Waiver of written reports**

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

**e. All other permit violation reporting**

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

**S3.H. Other reporting**

**a. Spills of Oil or Hazardous Materials**

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

**b. Failure to submit relevant or correct facts**

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

**S3.I. Maintaining a copy of this permit**

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

**S4. Facility loading**

**S4.A. Design criteria**

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

**Table S4.A – Design Criteria**

<b>Parameter</b>	<b>Unit</b>
Maximum Month Design Flow (MMDF)	0.48 MGD
BOD <sub>5</sub> Influent Loading for Maximum Month	1,669 lb/day
TSS Influent Loading for Maximum Month	1,669 lb/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 173-219-210 (engineering reports for reclaimed water facilities) and WAC 173-240-060, (engineering reports for wastewater treatment facilities) and be approved by Ecology prior to any construction.

**S4.C. Duty to mitigate**

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

**S4.D. Notification of new or altered sources**

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

## **S5. Operation and maintenance**

The Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed to produce and distribute reclaimed water and 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.

The Permittee must keep maintenance records on all major electrical and mechanical components of the treatment plant and reclaimed water distribution system. 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. It must make maintenance records available for inspection at all times.

### **S5.A. Certified operator**

This permitted facility must be operated by an operator certified by the state of Washington for at least a Class III 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 II plant must be in charge during all regularly scheduled shifts.

### **S5.B. Treatment reliability**

The Permittee must ensure compliance with the reliability requirements of WAC 173-219-350. It must use adequate safeguards to prevent the distribution of water that is not treated in accordance with the requirements of this permit. Adequate safeguards include, but are not limited to alarms to alert operators of problems, use of redundant power sources, retention of inadequately treated wastes, and automatic diversions of water to storage or other authorized disposal when problems occur.

#### **1. Reclaimed water bypass prohibited**

The Permittee must not bypass inadequately treated wastewater from the permitted facility to the distribution system or any point of use. It must divert any water not treated to the reclaimed water quality or reliability standards of this permit to storage for retreatment or to the Snoqualmie River through outfall 001, as authorized by Special Condition S1.B of this permit. This condition does not alter in any way the general bypass prohibitions included in Special Condition S5.E of this permit.

#### **2. Alarms and automatic diversion**

The Permittee must use alarm systems at the permitted facility to alert operators to failures in critical treatment unit processes. All alarms must sound at an attended location or through an automated notification system that will alert a designated, on-call operator of the need to take corrective action. The alarm system must include automated response programming that, upon failure of a critical system, starts back-up components, diverts

water to storage, or diverts water to authorized disposal. Critical systems include, but are not limited to, primary plant power supply, biological treatment, membrane filtration and disinfection treatment processes. Any programming to automatically divert water to storage or disposal must include a requirement for an operator to manually reset after verifying correction of the initial failure.

### **3. Power supply**

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 I (EPA 430-99-74-001) at the wastewater treatment plant. Reliability Class I requires a backup power source sufficient to operate all vital components and critical lighting and ventilation during peak wastewater flow conditions. Vital treatment components include biological treatment units, membrane filtration and disinfection. Upon loss of primary power, the Permittee must ensure one of the following actions occur.

1. An alarm alerts the plant operator to the power loss and power supply switches to a back-up power source.
2. An alarm alerts the plant operator to the loss of power and automated flow control equipment divert wastewater to storage for retreatment after power returns.
3. An alarm alerts the plant operator to the loss of power and automated flow control equipment divert wastewater to an authorized disposal location.

The power supply to all alarms and automated flow diversion equipment must be independent of the primary power supply for the reclaimed water facility or use an independent, uninterruptible back-up power source.

### **4. Restoring service**

The Permittee may not restore reclaimed water distribution until appropriate back-up systems have been brought online or until the plant failure has been corrected. It must develop and implement checklists and standard operating procedures for operators to use in determining that the plant has been restored to normal operation. The checklists and standard operating procedures must be included in the operations and maintenance manual approved by Ecology in accordance with Special Condition S5.F.

### **5. Short-term reduction**

The Permittee must schedule any facility maintenance that might require interruption of reclaimed water treatment system and degrade reclaimed water quality to take place during non-critical production periods and to carry this maintenance out according to the approved O&M manual or as otherwise approved by Ecology.

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

- a. Give written notification to Ecology, if possible, thirty (30) days prior to such activities.
- b. Detail the reasons for, length of time of, and the potential effects of the reduced level of treatment.
- c. Store inadequately treated flow and retreat after full treatment capability has been restored, or divert all inadequately treated flow to the Snoqualmie River through outfall 001 as authorized by Special Condition S1.B of this permit.
- d. Follow the requirements for “Restoring service” listed above before resuming reclaimed water production.

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

#### **S5.C. Cross-connection control**

The operation and maintenance program at the permitted facility must include appropriate cross-connection control provisions that ensure protection of reclaimed water from lower quality water. The program must ensure protection of reclaimed water at all stages, starting at the production facility and ending at the release location at the Chinook Bend Wetland. The Permittee must ensure that all determinations of the appropriate method of backflow prevention needed to eliminate or control cross-connections is made by a cross-connection control specialist certified under RCW 70A.120.170 or by a professional engineer qualified to identify and resolve cross connections in non-potable water systems.

#### **S5.D. 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.E. 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.E.1, or is approved by Ecology as an anticipated bypass following the procedures in S5.E.2. This condition supplements the prohibition in reclaimed water condition S5.B.1 (Reclaimed water bypass prohibited).

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 wastewater effluent limits in Special Condition S1.B of this permit. In accordance with Special Condition S5.B.1, the Permittee must discharge any water produced during a

maintenance-related bypass to the Snoqualmie River, unless it can demonstrate that the bypass did not compromise reclaimed water treatment reliability or reclaimed water quality. The Permittee is not required to notify Ecology when bypassing for essential maintenance. However the Permittee must comply with the monitoring requirements specified in special condition S2.B.

2. Anticipated bypasses for non-essential maintenance

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

- a. If a bypass is for non-essential maintenance, the Permittee must notify Ecology, if possible, at least ten (10) days before the planned date of bypass. The notice must contain:
  - A description of the bypass and the reason the bypass is necessary.
  - An analysis of all known alternatives which would eliminate, reduce, or mitigate the potential impacts from the proposed bypass.
  - A cost-effectiveness analysis of alternatives.
  - The minimum and maximum duration of bypass under each alternative.
  - A recommendation as to the preferred alternative for conducting the bypass.
  - The projected date of bypass initiation.
  - A statement of compliance with SEPA.
  - A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
  - Details of the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.
- b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process. The project-specific engineering report as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.
- c. Ecology will determine if the Permittee has met the conditions of special condition S5.E.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.F. Operations and maintenance (O&M) manual**

##### **a. O&M manual submittal and requirements**

The Permittee must:

1. Review the Operations and Maintenance (O&M) Manual for consistency with the requirements of WAC 173-240-080 and WAC 173-219-240 and update it as necessary. By December 29, 2023, submit the updated manual to Ecology for review, or provide notice to Ecology to document that an update was not needed. Due to the large size and complexity of the manual, the Permittee must submit the electronic files on a portable digital storage device, (flash drive, DVD or CD) or through a secure file transfer server; do not submit files through the Water Quality Permitting Portal – Permit Submittals application.
2. Review the O&M Manual at least annually.
3. Submit to Ecology for review any substantial changes or updates to the O&M Manual.
4. Keep the approved O&M Manual at the permitted facility.
5. Follow the instructions and procedures of this manual.

##### **b. O&M manual components**

The O&M manual must include all contents listed in WAC 173-219-240(2) and WAC 173-240-080(1) through (5). The manual contents must also be consistent with the guidance in section 5.2.8 of the Reclaimed Water Facilities Manual (Purple Book) in Table G1-3 in the *Criteria for Sewage Works Design* (Orange Book), 2008. The O&M Manual must include:

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

2. A review of system components whose failure could impact reclaimed water quality, pollute surface water or impact human health. Provide a procedure for a routine schedule of checking the function of these components.
3. System maintenance procedures that contribute to the generation of wastewater or may result in the discharge of reclaimed water at an unauthorized location.
4. Reporting protocols for submitting reports to Ecology to comply with the reporting requirements in this 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. Protocols and procedures for compliance with the sampling and reporting requirements in this permit
8. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.
9. Procedures and schedules for periodic inspection of any approved backflow prevention assemblies installed to protect the quality of reclaimed water produced at the facility.
10. Procedures to ensure that "off spec" reclaimed water is re-treated so that it meets all reclaimed water permit limits or is discharged through an approved NPDES outfall according to the terms and conditions of the NPDES permit. "Off spec" refers to water produced by the reclaimed water facility that does not meet required water quality requirements or is otherwise not treated according to the requirements of this reclaimed water permit.
11. Procedures to decontaminate reclaimed water piping and other appurtenances prior to returning the facilities to reclaimed water service following incidents when off spec reclaimed water is produced.

## **S6. Pretreatment**

### **S6.A. General requirements**

1. The Permittee must implement the Industrial Pretreatment Program in accordance with the following:
  - King County Code 28.84.060 and 28.82 (as amended by King County Ordinance No. 11963 on January 1, 1996 and Ordinance No. 16929 on September 30, 2010);
  - the legal authorities, policies, procedures, and financial provisions described in the Permittee's approved pretreatment program submittal entitled "Industrial Pretreatment Program" dated April 27, 1981, including any approved revisions thereto;

- and the General Pretreatment Regulations (40 CFR Part 403).

At a minimum, the Permittee must undertake the following pretreatment implementation activities:

- a. Enforce categorical pretreatment standards under Section 307(b) and (c) of the Federal Clean Water Act (hereinafter, the Act), prohibited discharge standards as set forth in 40 CFR 403.5, local limits, or state standards, 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)(1)(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)(vii).
- g. If the Permittee elects to conduct sampling of an SIU's discharge in lieu of requiring user self-monitoring, it must satisfy all requirements of 40 CFR Part 403.12. This includes monitoring and record keeping requirements of Sections 403.12(g) and (o). For SIUs subject to categorical standards (CIUs), the



annual report using the Water Quality Permitting Portal – Permit Submittals application by April 30<sup>th</sup> of each year.

The report must include the following information:

- a. An updated non-domestic inventory.
  - b. Results of wastewater sampling at the treatment plant conducted to support local limit development, if completed during the reporting year. The Permittee must calculate removal rates for each pollutant and evaluate the adequacy of the existing local limits in prevention of treatment plant interference, pass through of pollutants that could affect receiving water quality, and sludge contamination.
  - c. Status of program implementation, including:
    - 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. (See Subsection A.5. 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 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. Local limit development**

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

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

## **S7. Solid wastes**

### **S7.A. Solid waste handling**

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

### **S7.B. Leachate**

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

## **S8. Outfall evaluation**

The Permittee must inspect the submerged portion of the outfall line and diffuser to the Snoqualmie River (Outfall 001) to document its integrity and continued function. If conditions allow for a photographic verification, the Permittee must include such verification in the report. The Permittee must submit the inspection report to Ecology through the Water Quality Permitting Portal – Permit Submittals application by October 31, 2025. The Permittee must submit hard-copies of any video files to Ecology as required by Permit Condition S3.B. The Portal does not support submittal of video files.

## **S9. Application for permit renewal or modification for facility changes**

The Permittee must submit applications for renewal of this permit by May 1, 2026. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF). The permit renewal application package must include the following:

- NPDES Application Form 2A for New and Existing Publicly Owned Treatment Works.
- State Permit Application for the Generation, Distribution, and Use of Reclaimed Water.

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, additions of new reclaimed water users or use locations, or other planned changes, such as process modifications, in the permitted facility.

## **Reclaimed Water Conditions**

### **R1. Reclaimed Water Distribution and Use**

#### **R1.A. Use agreement required**

The Permittee must maintain compliance with the terms and conditions of King County Special Use Permit SUPS13-0010, dated February 28, 2013, and with all subsequent amendments or renewals of that permit. The permittee must ensure that conditions in this special use permit related to the use of reclaimed water are consistent with the requirements of this permit and with WAC 173-219-290. All revisions to this special use permit must be submitted to Ecology upon issuance.

#### **R1.B. Distribution and use requirements**

The Permittee must comply with the following requirements for the distribution and use of reclaimed water produced at the permitted facility.

The Permittee must:

1. Limit distribution of Class A reclaimed water to the Chinook Bend Wetland area. This permit does not authorize distribution to other users or locations.
2. Not allow additional connections to the conveyance pipeline, unless specifically authorized through a modification of this permit.
3. Take appropriate steps to divert water to outfall 001 into the Snoqualmie River during periods of distribution system maintenance. This permit prohibits any release of reclaimed water to surface water locations other than through outfall 001 or to any land area not identified in this permit.
4. Maintain advisory notices at the use site to identify areas where reclaimed water is released to the wetland. Advisory notices may include signs or distributed notices that include the following: "Reclaimed Water – Do Not Drink". The requirement may also use alternate language that is approved by the Department of Health.
5. Restrict operation of reclaimed water valves and outlets at the use site to authorized personnel.

### **R2. Wetland Water Quality Study**

The Permittee must submit a report that analyzes the water quality of the Chinook Bend Wetland. The report must present the findings from a site-specific study described in an Ecology-approved Quality Assurance Project Plan (QAPP). The scope of the study must, to the greatest extent possible, include the following specific goals:

- Determine site-specific nutrient (nitrogen and phosphorous) assimilation capacity of the wetland.
- Evaluate the impacts of long-term total phosphorous loading in excess of the 1 mg/L performance standard.

- To the extent practical, evaluate changes in wetland water quality compared to conditions established through sampling conducted in 2006 and presented in Appendix B of *Amendment 1 to the Wastewater Facilities Plan for the Carnation Wastewater Treatment Facility*.

The study must also evaluate ambient conditions of the Snoqualmie River, both upstream and downstream of the Chinook Bend Wetland area, to assess whether there are detectable changes in the river's water quality downstream of the wetland site.

Parameters of interest for the study include, but are not limited to: dissolved oxygen, pH, temperature, ammonia, total nitrogen, total phosphorous, E. Coli, and chlorophyll. Where practical, the evaluation should compare current ambient conditions to historical data available in Ecology's Environmental Information Management System (EIM) database or from past studies completed by King County.

The Permittee must:

1. Submit a sampling and quality assurance plan for Ecology review and approval by November 1, 2022. Prepare all quality assurance plans in accordance with the guidelines given in *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*, Ecology Publication 04-03-030: <https://fortress.wa.gov/ecy/publications/documents/0403030.pdf>
2. Conduct all sampling and analysis in accordance with the approved quality assurance project plan.
  - a. Locate the upstream Snoqualmie River sampling location at a convenient area near the Carnation Farm Road bridge. Locate the downstream sampling location downstream of the point where the wetland's outlet stream enters the Snoqualmie River. For any sample locations established in the wetland pond, discuss the reason for selecting each location.
  - b. Use sampling station accuracy requirements of  $\pm 20$  meters.
  - c. Establish a sampling plan that provides adequate data to support the goals of the study.
  - d. Collect at least ten samples from each location and analyze the samples for the parameters of interest noted above as well as any other parameters the Permittee deems appropriate to achieve the goals of the study.
  - e. Conduct all chemical analysis using the methods and the detection levels identified in Appendix A.
3. Submit the final report, summarizing the results of the study to Ecology by November 1, 2025. The final report must document when the data was successfully loaded into EIM.

### **R3. Water Rights Protection**

Per RCW 90.46.130, the use of reclaimed water produced at the permitted facility must not impair any existing water right downstream of the freshwater discharge point(s) of the facility unless the Permittee and affected right holder agree upon compensation or mitigation. Existing water rights may include any permits, claims, certificates, or instream flows established pursuant to RCW 90.22 and RCW 90.54, along with federally reserved water rights.

In issuing this permit, Ecology acknowledges that the authorized use of reclaimed water complies with the water rights protection provisions in WAC 173-219-090 and RCW 90.46.130. Per WAC 173-219-090(1), any “person applying to ecology or health for a reclaimed water permit, permit renewal, or permit modification under this chapter must demonstrate compliance with RCW 90.46.130.” Based on this requirement, the Permittee must document in the next application for permit renewal how the use of reclaimed water from the permitted facility continues to comply with the above provisions.

## General Conditions

### G1. Signatory requirements

1. All applications submitted to Ecology must be signed and certified.
  - a. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
    - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
    - The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  - b. In the case of a partnership, by a general partner.
  - c. In the case of sole proprietorship, by the proprietor.
  - d. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

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

2. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a. The authorization is made in writing by a person described above and submitted to Ecology.
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

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

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

## **G2. Right of inspection and entry**

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

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

## **G3. Permit actions**

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

1. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
  - a. Violation of any permit term or condition.

- b. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
  - c. A material change in quantity or type of waste disposal.
  - d. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination.
  - e. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit.
  - f. Nonpayment of fees assessed pursuant to RCW 90.48.465.
  - g. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
2. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:
- a. A material change in the condition of the waters of the state.
  - b. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
  - c. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.
  - d. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
  - e. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
  - f. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.
  - g. Incorporation of an approved local pretreatment program into a municipality's permit.
3. The following are causes for modification or alternatively revocation and reissuance:
- a. When cause exists for termination for reasons listed in 1.a through 1.g of this section, and Ecology determines that modification or revocation and reissuance is appropriate.
  - b. When Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G7) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

#### **G4. Reporting planned changes**

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

1. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).
2. A significant change in the nature or an increase in quantity of pollutants discharged.
3. A significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

#### **G5. Plan review required**

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

#### **G6. Compliance with other laws and statutes**

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

#### **G7. Transfer of this permit**

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

1. Transfers by Modification  
Except as provided in paragraph (2) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
2. Automatic Transfers  
This permit may be automatically transferred to a new Permittee if:
  - a. The Permittee notifies Ecology at least thirty (30) days in advance of the proposed transfer date.

- b. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.
- c. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

### **G8. Reduced production for compliance**

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

### **G9. Removed substances**

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

### **G10. Duty to provide information**

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

### **G11. Other requirements of 40 CFR**

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

### **G12. Additional monitoring**

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

### **G13. Payment of fees**

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

### **G14. Penalties for violating permit conditions**

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten

thousand dollars (\$10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

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

## **G15. Upset**

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

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

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

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

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

## **G16. Property rights**

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

## **G17. Duty to comply**

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

## **G18. Toxic pollutants**

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the

regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

### **G19. Penalties for tampering**

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

### **G20. Compliance schedules**

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

### **G21. Service agreement review**

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

## Appendix A

### List Of Pollutants With Analytical Methods, Detection Limits And Quantitation Levels

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

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136
- If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.
- If the Permittee is unable to obtain the required DL and QL in its effluent due to matrix effects, the Permittee must submit a matrix-specific detection limit (MDL) and a quantitation limit (QL) to Ecology with appropriate laboratory documentation.
- When the permit requires the Permittee to measure the base neutral compounds in the list of priority pollutants, it must measure all of the base neutral pollutants listed in the table below. The list includes EPA required base neutral priority pollutants and several additional polynuclear aromatic hydrocarbons (PAHs). The Water Quality Program added several PAHs to the list of base neutrals below from Ecology's Persistent Bioaccumulative Toxics (PBT) List. It only added those PBT parameters of interest to Appendix A that did not increase the overall cost of analysis unreasonably.
- Ecology added this appendix to the permit in order to reduce the number of analytical "non-detects" in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost.
- The lists below include conventional pollutants (as defined in CWA section 502(6) and 40 CFR Part 122.), toxic or priority pollutants as defined in CWA section 307(a)(1) and listed in 40 CFR Part 122 Appendix D, 40 CFR Part 401.15 and 40 CFR Part 423 Appendix A), and nonconventionals. 40 CFR Part 122 Appendix D (Table V) also identifies toxic pollutants and hazardous substances which are required to be reported by dischargers if expected to be present. This permit appendix A list does not include those parameters.

**Table 1: Conventional Pollutants**

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

**Table 2: NonConventional Pollutants**

<b>Pollutant</b>	<b>CAS Number (if available)</b>	<b>Recommended Analytical Protocol</b>	<b>Detection (DL)<sup>1</sup> µg/L Unless specified</b>	<b>Quantitation Level (QL)<sup>2</sup> µg/L Unless specified</b>
Alkalinity, Total		SM2320-B		5 mg/L as CaCO3
Aluminum, Total	7429-90-5	200.8	2.0	10
Ammonia, Total (as N)		SM4500-NH3-B and C/D/E/G/H		20
Barium Total	7440-39-3	200.8	0.5	2.0
BTEX (benzene +toluene + ethylbenzene + m,o,p xylenes)		EPA SW 846 8021/8260	1	2
Boron, Total	7440-42-8	200.8	2.0	10.0
Chemical Oxygen Demand		SM5220-D		10 mg/L
Chloride		SM4500-CI B/C/D/E and SM4110 B		Sample and limit dependent
Chlorine, Total Residual		SM4500 CI 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

<b>Pollutant</b>	<b>CAS Number (if available)</b>	<b>Recommended Analytical Protocol</b>	<b>Detection (DL)<sup>1</sup> µg/L Unless specified</b>	<b>Quantitation Level (QL)<sup>2</sup> µg/L Unless specified</b>
E.coli		SM 9221B, 9221F, 9223B	N/A	Specified in method - sample aliquot dependent
Enterococci		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 <sub>3</sub>
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 <sub>3</sub> - E/F/H		100
Nitrogen, Total Kjeldahl (as N)		SM4500-N <sub>org</sub> B/C and SM4500NH <sub>3</sub> - B/C/D/EF/G/H		300
NWTPH Dx <sup>4</sup>		Ecology NWTPH Dx	250	250
NWTPH Gx <sup>5</sup>		Ecology NWTPH Gx	250	250
Phosphorus, Total (as P)		SM 4500 PB followed by SM4500-PE/PF	3	10
Salinity		SM2520-B		3 practical salinity units or scale (PSU or PSS)
Settleable Solids		SM2540 -F		Sample and limit dependent
Soluble Reactive Phosphorus (as P)		SM4500-P E/F/G	3	10
Sulfate (as mg/L SO <sub>4</sub> )		SM4110-B		0.2 mg/L
Sulfide (as mg/L S)		SM4500-S <sup>2</sup> F/D/G		0.2 mg/L
Sulfite (as mg/L SO <sub>3</sub> )		SM4500-SO <sub>3</sub> B		2 mg/L
Temperature (max. 7-day avg.)		Analog recorder or Use micro- recording devices known as 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

<b>Pollutant</b>	<b>CAS Number (if available)</b>	<b>Recommended Analytical Protocol</b>	<b>Detection (DL)<sup>1</sup> µg/L Unless specified</b>	<b>Quantitation Level (QL)<sup>2</sup> µg/L Unless specified</b>
Total Coliform		SM 9221B, 9222B, 9223B	N/A	Specified in method - sample aliquot dependent
Total Organic Carbon		SM5310-B/C/D		1 mg/L
Total dissolved solids		SM2540 C		20 mg/L

**Table 3: Priority Pollutant Metals, Cyanide & Total Phenols**

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

## Analytical Methods

1. **Detection level (DL)** – or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.
2. **Quantitation Level (QL)** – also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to  $(1, 2, \text{ or } 5) \times 10^n$ , where n is an integer. (64 FR 30417).  
**Also Given As:** The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).
3. **Soluble Biochemical Oxygen Demand** – method note: First, filter the sample through a Millipore Nylon filter (or equivalent) - pore size of 0.45-0.50 um (prep all filters by filtering 250 ml of laboratory grade deionized water through the filter and discard). Then, analyze sample as per method 5210-B.
4. **Northwest Total Petroleum Hydrocarbons Diesel Extended Range OR NWTPH Dx** – [Analytical Methods for Petroleum Hydrocarbons](https://fortress.wa.gov/ecy/publications/documents/97602.pdf)  
<https://fortress.wa.gov/ecy/publications/documents/97602.pdf>
5. **Northwest Total Petroleum Hydrocarbons Gasoline Extended Range OR NWTPH Gx** – [Analytical Methods for Petroleum Hydrocarbons](https://fortress.wa.gov/ecy/publications/documents/97602.pdf)  
<https://fortress.wa.gov/ecy/publications/documents/97602.pdf>

## Appendix B

### Sample Annual Report Questionnaire

Condition S3.C requires the Permittee to submit an annual report using a questionnaire form in the Water Quality Permitting Portal – Permit Submittals application. The following table provides an example of the questions that will appear in the form. While Ecology’s goal is to maintain consistency between this sample and the questions asked in the Permitting Portal, the permit condition requires the Permittee to answer the questions as they appear on the web form. Ecology may periodically alter the questions in the web form to improve clarity in the way questions are asked.

The questionnaire will require the Permittee to either fill in numbers, upload files for supporting documents, or answer “yes/no” questions. Most “yes/no” questions will trigger a need to supply additional information or files if the Permittee answers “yes”.

Where the questionnaire asks the Permittee to upload a file, Ecology prefers a single file upload. The Permittee may, however, upload multiple files for a single question, if needed. The Portal application provides instructions for uploading multiple files.

Question Number	Permit Section	Question	Expected Response
1a	S3.C	How many days did the facility produce reclaimed water during the last year?	enter number
1b	S3.C	How many days did the facility distribute reclaimed water during the last year?	enter number
2a	S3.C	What was the total volume (in millions of gallons) of reclaimed water produced during the last year?	enter number
2b	S3.C	What was the total volume (in millions of gallons) of reclaimed water distributed during the last year?	enter number
3	S3.C	Reclaimed Water Distribution Summary: Using the file upload box below, attach a file (spreadsheet or written report) that provides a detailed breakdown of reclaimed water distributed to each authorized user. In addition, use the data fields in questions 3a through 3j below to report the volume of reclaimed water distributed to each use category authorized in your permit (enter volume in millions of gallons).	upload file
3a	S3.C	<i>Indoor Uses</i>	<i>enter number</i>
3b	S3.C	<i>Commercial, Industrial, and Institutional Uses</i>	<i>enter number</i>
3c	S3.C	<i>Irrigation – Class A food crops</i>	<i>enter number</i>
3d	S3.C	<i>Irrigation – Class A other</i>	<i>enter number</i>
3e	S3.C	<i>Irrigation – Class B process food crops, nonfood crops, and orchard frost protection</i>	<i>enter number</i>
3f	S3.C	<i>Irrigation – Class B other</i>	<i>enter number</i>
3g	S3.C	<i>Wetland Enhancement (all classes)</i>	<i>enter number</i>
3h	S3.C	<i>Surface Water Augmentation</i>	<i>enter number</i>
3i	S3.C	<i>Groundwater Recharge (direct and indirect)</i>	<i>enter number</i>
3j	S3.C	<i>Aquifer Storage and Recovery</i>	<i>enter number</i>

<i>Questions 3a-3j will include an option to check "N/A" for any use that category that is not applicable to the permit.</i>			
4	N/A	Were any new user or distributors added to the system during the last year?	Yes or No
4a	N/A	<i>Attach a list identifying the new users, the type of uses, and the use locations along with the date of Ecology's approval of the use agreement.</i>	<i>upload file</i>
5	N/A	Were any actions taken during the last year to enforce requirements of a use or distribution agreement?	Yes or No
5a	N/A	<i>Attach a file identifying the user or distributor involved, the nature of the violation, and the remedial actions taken.</i>	<i>upload file</i>
6	S3.C	Were there any reclaimed water limit violations reported on monthly DMRs during the last year (includes all limits associated with reclaimed water production as well as distribution system chlorine residual limits, if applicable)?	Yes or No
6a	S3.C	<i>How many violations were reported?</i>	<i>enter number</i>
7	S5.B.1	Did the facility diverted off-spec reclaimed water for disposal or retreatment during the last year?	Yes or No
7a	S5.B.1	<i>What volume of water was diverted (in millions of gallons)?</i>	<i>enter number</i>
7b	S5.B.1	<i>Please attach a file that describes the circumstances that required diversion and the steps taken to remedy.</i>	<i>upload file</i>
8	R1.B.3	Was any reclaimed water diverted from authorized use locations due to distribution system maintenance or repair?	Yes or No
8a	R1.B.3	<i>What volume of water was diverted (in millions of gallons)?</i>	<i>enter number</i>
8b	R1.B.3	<i>Please attach a file that describes the circumstances that required diversion and the steps taken to remedy.</i>	<i>upload file</i>
9	N/A	Were any backflow incidents discovered and reported during the last year?	Yes or No
9a	N/A	<i>How many incidents were reported?</i>	<i>enter number</i>
9b	N/A	<i>Attach a document that summarizes the reported incidents and remedial actions taken.</i>	<i>upload file</i>
10	R4.C.a	Cross-Connection Control Summary: Does your permit include a requirement to submit an annual Cross-Connection Control Summary Report?	Yes or No
10a	S5.C	<i>Select the type of summary your permit requires:</i>	<i>select from menu</i>
10b	R5.C	<i>If 'other' selected please describe the type of summary:</i>	<i>enter text</i>
10c	R5.C	<i>Attach a document or documents that provide the required summary report</i>	<i>upload file</i>

*Questions 4a, 5a, 6a, 7a, 7b, 8a, 8b, 9a, 9b, 10a, 10b, and 10c are conditional questions that will only appear if the Permittee answers "Yes" in questions 4, 5, 6, 7, 8, 9, or 10, respectively.*