

Issue Date:  
Effective Date:  
Expiration Date:

**National Pollutant Discharge Elimination System  
Waste Discharge Permit No. WA0045144**

State of Washington  
DEPARTMENT OF ECOLOGY  
Eastern Regional Office  
4601 North Monroe Street  
Spokane, WA 99205-1295

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

Liberty Lake Sewer and Water District  
22510 E. Mission Ave  
Liberty Lake, Washington 99019

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

Plant Location: 1926 N. Harvard Road; north of I-90.      Receiving Water: Spokane River

Treatment Type: Extended aeration with biological nutrient removal

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Washington State Department of  
Ecology

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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
All permit required submittals must be submitted electronically through the WQWebPortal.			
S3.A	Discharge Monitoring Report (DMR)	Monthly	<a href="#">Enter a specific date</a>
S3.A	Discharge Monitoring Report (DMR)	Semiannual	<a href="#">Enter specific dates</a>
S3.A	Permit Renewal Application Monitoring Data ( <a href="#">submit w/permit renewal application</a> )	1/permit cycle	<a href="#">Insert permit application due date</a>
S3.F	Reporting Permit Violations	As necessary	-
S4.B	Plans for Maintaining Adequate Capacity	As necessary	-
S4.D	Notification of New or Altered Sources	As necessary	-
S4.F	Wasteload Assessment	(Annually)	March 15, 2017
S5.F	Bypass Notification	As necessary	-
S5.G	Operations and Maintenance Manual Update or Review Confirmation Letter	Annually	March 15, 2017
S6.B.4	Notify Ecology when Industrial Users violate discharge prohibitions	As necessary	-
S6.C.2	Notify Ecology of any proposed discharger which may be a SIU	As necessary	-
S6.D	Submit copies of Industrial User notifications letters	As necessary	-
S6.E	Annual List of Industrial Users	Annual	March 15, 2017
S6.E	Industrial User Survey Update	Annual	March 15, 2017
S8.	Application for Permit Renewal	1/permit cycle	<a href="#">Insert date from S8</a>
S9.	Compliance Schedule	Varies	<a href="#">See Section S 9</a>
S9.	Spill Plan	1/permit cycle	March 15, 2018
S.11.A	Acute Toxicity Effluent Test Results ( <a href="#">submit w/permit renewal application</a> )	Once	<a href="#">Insert permit application due date</a>
S12.A	Chronic Toxicity Effluent Test Results ( <a href="#">submit w/permit renewal application</a> )	Once	<a href="#">Insert permit application due date</a>
S13.	BMP Implementation Plan	Annually	April 15, 2017
S13.	Technical Memo for Phase II Influent Loading Design Parameters	1/permit cycle	XXX 15, 2020
G1.	Notice of Change in Authorization	As necessary	
G4.	Reporting Planned Changes	As necessary	

<b>Permit Section</b>	<b>Submittal</b>	<b>Frequency</b>	<b>First Submittal Date</b>
G5.	Engineering Report for Construction or Modification Activities	As necessary	
G7.	Notice of Permit Transfer	As necessary	
G10.	Duty to Provide Information	As necessary	
G20.	Compliance Schedules	As necessary	
G21.	Contract Submittal	As necessary	

## Special Conditions

### S1. Discharge limits

#### S1.A. Effluent limits

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

Beginning on the effective date of this permit until **February 28, 2021**, the Permittee may discharge treated domestic wastewater to the Spokane River at the permitted location subject to compliance with the following limits:

<b>Effluent Limits: Outfall 001</b> Latitude N 47.67833° Longitude W 117.1167°		
Parameter	Average Monthly <sup>a</sup>	Average Weekly <sup>b</sup>
Biochemical Oxygen Demand (5-day) (BOD <sub>5</sub> )	10 milligrams/liter (mg/L) 83 pounds/day (lbs/day) 85% removal of influent BOD <sub>5</sub>	15 mg/L 125.1 lbs/day
Total Suspended Solids (TSS)	10 mg/L 83 lbs/day 85% removal of influent TSS	15 mg/L 125.1 lbs/day
Total PCB (Interim)	0.0011 µg/L	0.0017 µg/L
Parameter	Minimum	Maximum
pH	6.5 standard units	8.5 standard units
Parameter	Monthly Geometric Mean <sup>c</sup>	Weekly Geometric Mean <sup>c</sup>
Fecal Coliform Bacteria	100/100 milliliter (mL)	200/100 mL
Parameter	Average Monthly	Maximum Daily <sup>d</sup>
Lead (Total Recoverable)	1.38 µg/L	1.79 µg/L
Zinc (Total Recoverable)	81.7 µg/L	91.9 µg/L
Cadmium (Total Recoverable)	0.074 µg/L	0.132 µg/L
Total PCB (Final) <sup>f</sup>	--	0.00017 µg/L
Parameter	Seasonal Average (March – October) <sup>e</sup>	
Total Ammonia (as NH <sub>3</sub> -N)	11.8 lbs/day	
Total Phosphorus as P	7.20 lbs/day	

<b>Effluent Limits: Outfall 001</b> <b>Latitude N 47.67833° Longitude W 117.1167°</b>	
a	Average Monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured. See footnote c for fecal coliform calculations.
b	Average Weekly discharge limit means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges' measured during that week. See footnote c for fecal coliform calculations.
c	Ecology provides directions to calculate the monthly and the weekly geometric mean in publication No. 04-10-020, Information Manual for Treatment Plant Operators available at: <a href="http://www.ecy.wa.gov/pubs/0410020.pdf">http://www.ecy.wa.gov/pubs/0410020.pdf</a>
d	Maximum Daily effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day. For pollutants with limits expressed in units of mass, calculate the daily discharge as the total mass of the pollutant discharged over the day. This does not apply to pH or temperature.
e	Compliance with the effluent limitation for NH <sub>3</sub> -N, and TP will be based on a running seasonal average reported on a monthly basis for tracking compliance with the allowable mass limit.
f	The final PCB effluent limit becomes effective starting with the 2026 permit cycle. The final limit listed applies to effluent at the end of pipe and not at the edge of the chronic mixing zone. Ecology will reassess this final water quality based effluent limit based on the ongoing reduction of PCBs discharged to the River, and the collection of additional data. Ecology may also establish a limit based on loading rather than concentration.

**S1.B Final Effluent Limits for Compliance with the Spokane River DO TMDL**

Effective **March 1, 2021**, the Permittee may discharge treated municipal wastewater subject to compliance with the following limitations from **March 1<sup>st</sup> through October 31<sup>st</sup>**.

<b>Effluent Limits: Outfall 001 (March 1st – October 31st)</b> <b>Latitude N 47.67833° Longitude W 117.1167°</b>		
Parameter	Average Monthly <sup>a</sup>	Average Weekly <sup>b</sup>
Total Suspended Solids (TSS)	5 mg/L 83.4 lbs/day 85% removal of influent TSS	7 mg/L 116.8 lbs/day
Total PCB (Interim)	0.0011 µg/L	0.0017 µg/L
Parameter	Minimum	Maximum
pH	6.5 standard units	8.5 standard units



Parameter	Monthly Geometric Mean <sup>c</sup>	Weekly Geometric Mean <sup>c</sup>
Fecal Coliform Bacteria	100/100 milliliter (mL)	200/100 mL
Parameter	Average Monthly	Maximum Daily <sup>d</sup>
Lead (Total Recoverable)	1.38 µg/L	1.79 µg/L
Zinc (Total Recoverable)	81.7 µg/L	91.9 µg/L
Cadmium (Total Recoverable)	0.074 µg/L	0.132 µg/L
Total PCB (Final) <sup>f</sup>	--	0.00017 µg/L
Parameter	Seasonal Average <sup>e</sup>	
Total Ammonia (as NH <sub>3</sub> -N)	March – May: 8.88 lbs/day June – September: 2.25 lbs/day October: 8.88 lbs/day	
Total Phosphorus	0.45 lbs/day	
Carbonaceous Biochemical Oxygen Demand – 5 day (CBOD <sub>5</sub> )	45.1 lbs/day	
<sup>a</sup>	Average Monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured. See footnote c for fecal coliform calculations.	
<sup>b</sup>	Average Weekly discharge limit means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges' measured during that week. See footnote c for fecal coliform calculations.	
<sup>c</sup>	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="http://www.ecy.wa.gov/pubs/0410020.pdf">http://www.ecy.wa.gov/pubs/0410020.pdf</a>	
<sup>d</sup>	Maximum Daily effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day. For pollutants with limits expressed in units of mass, calculate the daily discharge as the total mass of the pollutant discharged over the day. This does not apply to pH or temperature.	
<sup>e</sup>	Compliance with the effluent limitation for CBOD <sub>5</sub> , NH <sub>3</sub> -N, and TP will be based on a running seasonal average reported on a monthly basis for tracking compliance with the allowable mass limit.	
<sup>f</sup>	The final PCB effluent limit becomes effective starting with the 2026 permit cycle. The final limit listed applies to effluent at the end of pipe and not at the edge of the chronic mixing zone. Ecology will reassess this final water quality based effluent limit based on the ongoing reduction of PCBs discharged to the River, and the collection of additional data. Ecology may also establish a limit based on loading rather than concentration.	

<b>Effluent Limits: Outfall 001 (November 1st – End of February)</b>		
<b>Latitude N 47.67833° Longitude W 117.1167°</b>		
<b>Parameter</b>	<b>Average Monthly <sup>a</sup></b>	<b>Average Weekly <sup>b</sup></b>
Biochemical Oxygen Demand (5-day) (BOD <sub>5</sub> )	10 milligrams/liter (mg/L) 83 pounds/day (lbs/day) 85% removal of influent BOD <sub>5</sub>	15 mg/L 125.1 lbs/day
Total Suspended Solids (TSS)	10 mg/L 83 lbs/day 85% removal of influent TSS	15 mg/L 125.1lbs/day
Total PCB (Interim)	0.0011 µg/L	0.0017 µg/L
<b>Parameter</b>	<b>Minimum</b>	<b>Maximum</b>
pH	6.5 standard units	8.5 standard units
<b>Parameter</b>	<b>Monthly Geometric Mean <sup>c</sup></b>	<b>Weekly Geometric Mean <sup>c</sup></b>
Fecal Coliform Bacteria	100/100 milliliter (mL)	200/100 mL
<b>Parameter</b>	<b>Average Monthly</b>	<b>Maximum Daily <sup>d</sup></b>
Lead (Total Recoverable)	1.38 µg/L	1.79 µg/L
Zinc (Total Recoverable)	81.7 µg/L	91.9 µg/L
Cadmium (Total Recoverable)	0.074 µg/L	0.132 µg/L
Total PCB (Final) <sup>e</sup>	--	0.00017 µg/L
<sup>a</sup>	Average Monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured. See footnote c for fecal coliform calculations.	
<sup>b</sup>	Average Weekly discharge limit means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges' measured during that week. See footnote c for fecal coliform calculations.	
<sup>c</sup>	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="http://www.ecy.wa.gov/pubs/0410020.pdf">http://www.ecy.wa.gov/pubs/0410020.pdf</a>	
<sup>d</sup>	Maximum Daily effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day. For pollutants with limits expressed in units of mass, calculate the daily discharge as the total mass of the pollutant discharged over the day. This does not apply to pH or temperature.	

e	<p>The final PCB effluent limit becomes effective starting with the 2026 permit cycle. The final limit listed applies to effluent at the end of pipe and not at the edge of the chronic mixing zone.</p> <p>Ecology will reassess this final water quality based effluent limit based on the ongoing reduction of PCBs discharged to the River, and the collection of additional data. Ecology may also establish a limit based on loading rather than concentration.</p>
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**S1.C. Mixing zone authorization**

**Mixing zone for Outfall 001**

The paragraph below defines the maximum boundaries of the mixing zones.

**Chronic mixing zone**

The width of the chronic mixing zone is limited to a distance of 34 feet. The length of the chronic mixing zone extends 300 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 7 feet in any horizontal direction from the outfall. The length of the acute mixing zone extends 30 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.

<b>Available Dilution (dilution factor) – Critical Season (March – October)</b>	
Acute Aquatic Life Criteria	3.7
Chronic Aquatic Life Criteria	41.4
Human Health Criteria - Carcinogen	135.7
Human Health Criteria - Non-carcinogen	57.6

<b>Available Dilution (dilution factor) – Non Critical Season (Nov – Feb)</b>	
Acute Aquatic Life Criteria	7.1
Chronic Aquatic Life Criteria	93.1
Human Health Criteria - Carcinogen	308
Human Health Criteria - Non-carcinogen	137

See Section R1 for Reclaimed Water limits and the Reclaimed Water Production and Beneficial Use section of the permit.

**S2. Monitoring requirements**

**S2.A. Monitoring schedule**

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

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
<b>(1) Wastewater Influent</b>			
Wastewater Influent means the raw sewage flow from the collection system into the treatment facility. Sample the wastewater entering the headworks of the treatment plant excluding any side-stream returns from inside the plant.			
Flow	MGD	Continuous <sup>a</sup>	Metered
pH <sup>f</sup>	Standard Units (S.U.)	Continuous <sup>a</sup>	Metered
Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	1/week <sup>j</sup>	24-Hour Composite <sup>c</sup>
Biochemical Oxygen Demand (BOD <sub>5</sub> )	lbs/day	1/week <sup>j</sup>	Calculated <sup>e</sup>
CBOD <sub>5</sub>	mg/L	1/week <sup>j</sup>	24-Hour Composite <sup>c</sup>
CBOD <sub>5</sub>	lbs/day	1/week <sup>j</sup>	Calculated <sup>e</sup>
Total Suspended Solids (TSS)	mg/L	1/week <sup>j</sup>	24-Hour Composite <sup>c</sup>
Total Suspended Solids (TSS)	lbs/day	1/week <sup>j</sup>	Calculated <sup>e</sup>
Total Ammonia	mg/L	1/week <sup>j</sup>	24-Hour Composite <sup>c</sup>
Total Phosphorus	mg/L	1/week <sup>j</sup>	24-Hour Composite <sup>c</sup>
Cadmium (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>
Lead (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>
Zinc (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>
Arsenic (Total Recoverable)	µg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
Nickel (Total Recoverable)	µg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
Copper (Total Recoverable)	µg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
Silver (Total Recoverable)	µg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
<b>(2) Final Wastewater Effluent</b>			
Final Wastewater Effluent means wastewater exiting the last treatment process or operation. Typically, this is after or at the exit from the disinfection process.			
Flow	MGD	Continuous <sup>a</sup>	Metered/recorded
pH <sup>f</sup>	Standard Units (S.U.)	Continuous <sup>a</sup>	Metered
7-DADMax Temperature <sup>t</sup>	°C	Daily	Calculated

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Total Reactive Phosphorus	µg/L	1/week <sup>j</sup>	24-Hour Composite <sup>c</sup>
Total Reactive Phosphorus	lbs/day	1/week <sup>j</sup>	Calculated <sup>e</sup>
BOD <sub>5</sub> <sup>h</sup>	mg/L	1/week <sup>j</sup>	24-Hour Composite <sup>c</sup>
BOD <sub>5</sub>	lbs/day	1/week <sup>j</sup>	Calculated <sup>e</sup>
BOD <sub>5</sub>	% removal <sup>d</sup>	1/week <sup>j</sup>	Calculated <sup>d</sup>
CBOD <sub>5</sub> <sup>h</sup>	mg/L	2/week <sup>i</sup>	24-Hour Composite <sup>c</sup>
CBOD <sub>5</sub>	lbs/day	2/week <sup>i</sup>	Calculated <sup>e</sup>
CBOD <sub>5</sub>	% removal <sup>d</sup>	2/week <sup>i</sup>	Calculated <sup>d</sup>
TSS	mg/L	2/week <sup>i</sup>	24-Hour Composite <sup>c</sup>
TSS	lbs/day	2/week <sup>i</sup>	Calculated <sup>e</sup>
TSS	% removal <sup>d</sup>	2/week <sup>i</sup>	Calculated <sup>d</sup>
Total Ammonia as N	mg/L	2/week <sup>i</sup>	24-Hour Composite <sup>c</sup>
Total Ammonia as N	lbs/day	2/week <sup>i</sup>	Calculated <sup>e</sup>
Total Phosphorus as P	µg/L	2/week <sup>i</sup>	24-Hour Composite <sup>c</sup>
Total Phosphorus as P	lbs/day	2/week <sup>i</sup>	Calculated <sup>e</sup>
Fecal Coliform <sup>g</sup>	MPN/100 ml	2/week <sup>i</sup>	Grab <sup>b</sup>
Dissolved Oxygen <sup>p</sup>	mg/L	5/week <sup>s</sup>	Grab <sup>b</sup>
Temperature	Degrees centigrade (°C)	5/week during June, July, August and September <sup>s</sup>	Grab <sup>bq</sup>
Total Hardness as CaCO <sub>3</sub>	mg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
Total Alkalinity as CaCO <sub>3</sub>	mg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
1,4 dichlorobenzene	µg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
Cadmium (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>
Lead (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>
Zinc (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>
Arsenic (Total Recoverable)	µg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
Chromium (Total Recoverable)	µg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Nickel (Total Recoverable)	µg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
Copper (Total Recoverable)	µg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
Silver (Total Recoverable)	µg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
Total PCBs <sup>r</sup>	µg/L	2/year <sup>n</sup>	24-Hour Composite <sup>c</sup>
<b>(4) Whole Effluent Toxicity Testing – Final Wastewater Effluent</b>			
As specified in Special Conditions S11 & S12. Results to be submitted with the permit application <b>by XXX 1, 2020.</b>			
<b>(5) Toxics Reductions Monitoring – Influent and Final Wastewater Effluent</b>			
Influent and effluent sampling results to be submitted annually with the Best Management Practices Implementation Plan as Specified in Special Condition S13. Effectiveness monitoring must utilize EPA Method 1668 C to generate usable data.			
Total PCB	pg/L	Quarterly <sup>m</sup>	24-Hour Composite <sup>c</sup>
2,3,7,8 TCDDs	pg/L	2/year <sup>n</sup>	24-Hour Composite <sup>c</sup>
<b>(6) Permit Renewal Application Requirements – Final Wastewater Effluent</b>			
The Permittee must record and report the wastewater treatment plant flow discharged on the day it collects the sample for priority pollutant testing with permit application.			
Nitrate plus Nitrite	mg/L as N	3/permit cycle <sup>o</sup>	Grab <sup>b</sup>
Oil and Grease	mg/L	3/permit cycle <sup>o</sup>	Grab <sup>b</sup>
Total Dissolved Solids	mg/L	3/permit cycle <sup>o</sup>	Grab <sup>b</sup>
Cyanide	micrograms/liter (µg/L)	3/permit cycle <sup>o</sup>	Grab <sup>b</sup>
Total Phenolic Compounds	µg/L	3/permit cycle <sup>o</sup>	Grab <sup>b</sup>
Priority Pollutants (PP) – Total Metals	µg/L; nanograms (ng/L) for mercury	3/permit cycle <sup>o</sup>	24-Hour Composite <sup>c</sup> Grab <sup>b</sup> for mercury
PP – Volatile Organic Compounds	µg/L	3/permit cycle <sup>o</sup>	Grab <sup>b</sup>
PP – Acid-extractable Compounds	µg/L	3/permit cycle <sup>o</sup>	24-Hour Composite <sup>c</sup>
PP – Base-neutral Compounds	µg/L	3/permit cycle <sup>o</sup>	24-Hour Composite <sup>c</sup>
<sup>a</sup>	Continuous means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance. The time interval for the associated data logger		

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
	must not be greater than 30 minutes. The Permittee must sample every 2 hours when continuous monitoring is not possible.		
b	Grab means an individual sample collected over a fifteen (15) minute, or less, period.		
c	24-Hour composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.		
d	$\% \text{ removal} = \frac{\text{Influent concentration (mg/L)} - \text{Effluent concentration (mg/L)}}{\text{Influent concentration (mg/L)}} \times 100$ <p>Calculate the percent (%) removal of BOD<sub>5</sub> and TSS using the above equation.</p>		
e	Calculated means figured concurrently with the respective sample, using the following formula: $\text{Concentration (in mg/L)} \times \text{Flow (in MGD)} \times \text{Conversion Factor (8.34)} = \text{lbs/day}$		
f	The Permittee must report the instantaneous maximum and minimum pH daily. Do not average pH values.		
g	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="http://www.ecy.wa.gov/programs/wq/permits/guidance.html">http://www.ecy.wa.gov/programs/wq/permits/guidance.html</a> . Do not report a result as too numerous to count (TNTC).		
h	Take effluent samples for the CBOD <sub>5</sub> / BOD <sub>5</sub> analysis before or after the disinfection process.		
i	2/week means two (2) times during each calendar week except weekends and holidays.		
j	1/week means one (1) time during each calendar week and on a rotational basis throughout the days of the week, except weekends and holidays.		
k	1/month means once every calendar month during alternating weeks.		
l	2/month means twice every calendar month during alternate weeks.		
m	Quarterly sampling periods are January through March, April through June, July through September, and October through December.		
n	2/year (or semiannual) means once in the winter and once in the summer.		
o	3/permit cycle means three discrete sampling events within the permit term.		
p	Report the daily dissolved oxygen concentration and the minimum for the reporting period.		
q	Temperature grab sampling must occur when the effluent is at or near its daily maximum temperature, which usually occurs in the late afternoon. If measuring temperature continuously, the Permittee must determine and report a daily maximum from half-hour measurements in a 24-hour period. Continuous monitoring instruments must achieve an accuracy of 0.2 degrees C and the Permittee must verify accuracy annually.		
r	Compliance sampling for PCB must use modified method 608. See Fact Sheet Section V.H for a description of the modified method and its reporting limits.		
s	5/week means five (5) times during each calendar week except weekends and holidays.		
t	Calculate a 7-DAD Max for each day by averaging each days maximum temperature value with the values from the six (6) preceding days.		

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

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

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

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

The Permittee must:

1. Select and use appropriate flow measurement, field measurement, and continuous monitoring devices and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard, the manufacturer’s recommendation, and approved O&M manual procedures for the device and the wastestream.
3. Calibrate continuous monitoring instruments weekly unless it can demonstrate a longer period is sufficient based on monitoring records. The Permittee:
  - a. May calibrate apparatus for continuous monitoring of dissolved oxygen by air calibration.
  - b. Must calibrate continuous pH measurement instruments using a grab sample analyzed in the lab with a pH meter calibrated with standard buffers and analyzed within 15 minutes of sampling.
  - c. Must calibrate continuous chlorine measurement instruments using a grab sample analyzed in the laboratory within 15 minutes of sampling.
4. Calibrate micro-recording temperature devices, known as thermistors, using protocols from Ecology’s Quality Assurance Project Plan Development Tool (*Standard Operating Procedures for Continuous Temperature Monitoring of Fresh Water Rivers and Streams Version 1.0 10/26/2011*). This document is available online at:  
[http://www.ecy.wa.gov/programs/eap/ga/docs/ECY\\_EAP\\_SOP\\_Cont\\_Temp\\_Mon\\_Ambient\\_v1\\_OEAP080.pdf](http://www.ecy.wa.gov/programs/eap/ga/docs/ECY_EAP_SOP_Cont_Temp_Mon_Ambient_v1_OEAP080.pdf)  
Calibration as specified in this document is not required if the Permittee uses recording devices certified by the manufacturer.
5. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates.
6. Establish a calibration frequency for each device or instrument in the O&M manual that conforms to the frequency recommended by the manufacturer.
7. Calibrate flow-monitoring devices at a minimum frequency of at least one calibration per year.
8. 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.

To find out more information and to sign up for the Water Quality Permitting Portal go to: <http://www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html>.

2. Enter the “No Discharge” reporting code for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.
3. Report single analytical values below detection as “less than the detection level (DL)” by entering < followed by the numeric value of the detection level (e.g. < 2.0) on the DMR.

If the method used did not meet the minimum DL and quantitation level (QL) identified in the permit, report the actual QL and DL in the comments or in the location provided.

4. **Do Not** report zero for bacteria monitoring. Report as required by the laboratory method.
5. Calculate and report an arithmetic average value for each day for bacteria if multiple samples were taken in one day.
6. Calculate the geometric mean values for bacteria (unless otherwise specified in the permit) using:
  - a. The reported numeric value for all bacteria samples measured above the detection value except when it took multiple samples in one day. If the Permittee takes multiple samples in one day it must use the arithmetic average for the day in the geometric mean calculation.
  - b. The detection value for those samples measured below detection.
7. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit and as allowed in S2.
8. Calculate average values and calculated total values (unless otherwise specified in the permit) using:
  - a. The reported numeric value for all parameters measured between the agency-required detection value and the agency-required quantitation value.
  - b. One-half the detection value (for values reported below detection) if the lab detected the parameter in another sample from the same monitoring point for the reporting period.
  - c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for the reporting period.
9. Report single-sample grouped parameters (for example: priority pollutants, PAHs, pulp and paper chlorophenolics, TTOs) on the WQWebDMR form and include: sample date, concentration detected, detection limit (DL) (as necessary), and laboratory quantitation level (QL) (as necessary).

The Permittee must also submit an electronic copy of the laboratory report as an attachment using WQWebDMR. The contract laboratory reports must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter.

10. Ensure that DMRs are electronically submitted no later than the dates specified below, unless otherwise specified in this permit.
11. Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must:

- a. Submit **monthly** DMRs by the 15<sup>th</sup> day of the following month.
- b. Submit **quarterly** DMRs by the 15<sup>th</sup> day of the month following the quarterly sampling period. Quarterly sampling periods are January through March, April through June, July through September and October through December.
- c. Submit **semiannual** DMRs by July 15 and January 15 of each year. Semiannual sampling periods are January through June, and July through December.
- d. Submit permit renewal application monitoring data in WQWebDMR as required in Special Condition S2 **by \*\*\* 31, 2020.**

### **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 written permit-required reports by the date specified in the permit.

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

Water Quality Permit Coordinator  
Department of Ecology  
Eastern Regional Office  
4601 North Monroe Street  
Spokane, WA 99205-1295

### **S3.C. Records retention**

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

### **S3.D. Recording of results**

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

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

6. The results of all analyses.

**S3.E. Additional monitoring by the Permittee**

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

**S3.F. Reporting permit violations**

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

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

**a. Immediate reporting**

The Permittee must immediately report to Ecology and the Local Health Jurisdiction (at the numbers listed below), all:

- Failures of the disinfection system.
- Collection system overflows.
- Plant bypasses resulting in a discharge.
- Any other failures of the sewage system (pipe breaks, etc.).

Eastern Regional Office	509-329-3400
Spokane Regional Health District	509-324-1500

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

**b. Twenty-four-hour reporting**

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

1. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
2. Any unanticipated bypass that causes an exceedance of an effluent limit in the permit (See Part S5.F, "Bypass Procedures").
3. Any upset that causes an exceedance of an effluent limit in the permit (See G.15, "Upset").

4. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Section S1.A of this permit.
5. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit.

**c. Report within five days**

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

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

**d. Waiver of written reports**

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

**e. All other permit violation reporting**

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

**S3.G. Other reporting**

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

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

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

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

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

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

**S4. Facility loading**

**S4.A. Design criteria**

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

Parameter	Design Criteria
Maximum Month Design Flow (MMDF)	2.0 MGD
Annual Average Dry Weather Flow	1.8 MGD
Peak Day Flow	3.0 MGD
BOD <sub>5</sub> Influent Loading for Maximum Month	6,294 lbs/day
TSS Influent Loading for Maximum Month	6,322 lbs/day
TN Loading for Maximum Month	1,008 lbs/day
TP Loading for Maximum Month	147 lbs/day

**S4.B. Plans for maintaining adequate capacity**

**a. Conditions triggering plan submittal**

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

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

**b. Plan and schedule content**

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

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

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

**a. Conditions triggering plan submittal**

The Permittee must continue long-term facility planning and submit engineering documents as specified in Special Condition S8 of this permit.

The Permittee must also provide a written status update on facility planning and design efforts with any DMR that reports the following conditions:

1. Actual flow or waste load reaches 85 percent of any one of the design criteria in S4.A for three consecutive months.
2. Actual flow or waste load exceeds 100 percent of any design criteria in S4.A in the reporting month.

**b. Plan and schedule content**

The planning update must describe the progress made towards completing engineering documents identified in Special Condition S8, including completed planning milestones and upcoming tasks.

When appropriate, the Permittee should identify short-term measures it is implementing to minimize facility overloading. Short-term measures may include, but are not limited to:

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

#### **S4.C. Duty to mitigate**

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

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

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

#### **S4.E. Wasteload assessment**

The Permittee must conduct an **annual assessment of its influent flow and waste load** and submit a report to Ecology **by March 15, 2017**, and annually thereafter. The report must contain:

1. A description of compliance or noncompliance with the permit effluent limits.
2. A comparison between the existing and design:
  - a. Monthly average dry weather and wet weather flows.
  - b. Peak flows.
  - c. BOD<sub>5</sub> loading.
  - d. Total suspended solids loadings.
3. The percent change in the above parameters since the previous report (except for the first report).
4. The present and design population or population equivalent.
5. The projected population growth rate.
6. The estimated date upon which the Permittee expects the wastewater treatment plant to reach design capacity, according to the most restrictive of the parameters above.

Ecology may modify the interval for review and reporting if it determines that a different frequency is sufficient.



## **S5. Operation and maintenance**

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

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

This permitted facility must be operated by an operator certified by the state of Washington for at least a Class 3 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 2 plant must be in charge during all regularly scheduled shifts. The Permittee must notify Ecology when the operator in charge at the facility changes. It must provide the new operator's name and certification level and provide the name of the operator leaving the facility.

### **S5.B. Operation and maintenance program**

The Permittee must:

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

### **S5.C. Short-term reduction**

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

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

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

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

**S5.D. Electrical power failure**

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

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

**S5.E. Prevent connection of inflow**

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

**S5.F. Bypass procedures**

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

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

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

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

This permit authorizes such a bypass only if:

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

- b. No feasible alternatives to the bypass exist, such as:
    - The use of auxiliary treatment facilities.
    - Retention of untreated wastes.
    - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass.
    - Transport of untreated wastes to another treatment facility.
  - c. Ecology is properly notified of the bypass as required in Special Condition S3.F of this permit.
3. If bypass is anticipated and has the potential to result in noncompliance of this permit.
    - a. The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:
      - A description of the bypass and its cause.
      - An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
      - A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
      - The minimum and maximum duration of bypass under each alternative.
      - A recommendation as to the preferred alternative for conducting the bypass.
      - The projected date of bypass initiation.
      - A statement of compliance with SEPA.
      - A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
      - Details of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
    - b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process.

The project-specific engineering report or facilities plan as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.

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

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

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

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

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

The Permittee must:

1. Review the **O&M Manual** at least annually and confirm this review by letter or e-mail to Ecology **by March 15 of each year**.
2. Submit to Ecology for review of substantial changes or updates to the O&M Manual whenever it incorporates them into the manual.
3. Keep the approved O&M Manual at the permitted facility.
4. Follow the instructions and procedures of this manual.

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

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

1. Emergency procedures for cleanup in the event of wastewater system upset or failure.
2. A review of system components which if failed could pollute surface water or could impact human health. Provide a procedure for a routine schedule of checking the function of these components.
3. Wastewater system maintenance procedures that contribute to the generation of process wastewater.
4. Reporting protocols for submitting reports to Ecology to comply with the reporting requirements in the discharge permit.

5. Any directions to maintenance staff when cleaning or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine).
6. The treatment plant process control monitoring schedule.
7. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.
8. Routine maintenance for membrane process.

## **S6. Pretreatment**

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

The Permittee must work with Ecology to ensure that all commercial and industrial users of the publicly owned treatment works (POTW) comply with the pretreatment regulations in 40 CFR Part 403 and any additional regulations that the Environmental Protection Agency (U.S. EPA) may promulgate under Section 307(b) (pretreatment) and 308 (reporting) of the Federal Clean Water Act.

### **S6.B. Duty to enforce discharge prohibitions**

1. Under federal regulations (40 CFR 403.5(a) and (b)), the Permittee must not authorize or knowingly allow the discharge of any pollutants into its POTW which may be reasonably expected to cause pass through or interference, or which otherwise violate general or specific discharge prohibitions contained in 40 CFR Part 403.5 or WAC 173-216-060.
2. The Permittee must not authorize or knowingly allow the introduction of any of the following into their treatment works:
  - a. Pollutants which create a fire or explosion hazard in the POTW (including, but not limited to waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21).
  - b. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, or greater than 11.0 standard units, unless the works are specifically designed to accommodate such discharges.
  - c. Solid or viscous pollutants in amounts that could cause obstruction to the flow in sewers or otherwise interfere with the operation of the POTW.
  - d. Any pollutant, including oxygen-demanding pollutants, (BOD<sub>5</sub>, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW.

- e. Petroleum oil, non-biodegradable cutting oil, or products of mineral origin in amounts that will cause interference or pass through.
  - f. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity which may cause acute worker health and safety problems.
  - g. Heat in amounts that will inhibit biological activity in the POTW resulting in interference but in no case heat in such quantities such that the temperature at the POTW headworks exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless Ecology, upon request of the Permittee, approves, in writing, alternate temperature limits.
  - h. Any trucked or hauled pollutants, except at discharge points designated by the Permittee.
  - i. Wastewaters prohibited to be discharged to the POTW by the Dangerous Waste Regulations (chapter 173-303 WAC), unless authorized under the Domestic Sewage Exclusion (WAC 173-303-071).
3. The Permittee must also not allow the following discharges to the POTW unless approved in writing by Ecology:
    - a. Noncontact cooling water in significant volumes.
    - b. Stormwater and other direct inflow sources.
    - c. Wastewaters significantly affecting system hydraulic loading, which do not require treatment, or would not be afforded a significant degree of treatment by the system.
  4. The Permittee must notify Ecology if any industrial user violates the prohibitions listed in this section (S6.B), and initiate enforcement action to promptly curtail any such discharge.

#### **S6.C. Wastewater discharge permit required**

The Permittee must:

1. Establish a process for authorizing non-domestic wastewater discharges that ensures all SIUs in all tributary areas meet the applicable state waste discharge permit (SWDP) requirements in accordance with chapter 90.48 RCW and chapter 173-216 WAC.
2. Immediately notify Ecology of any proposed discharge of wastewater from a source, which may be a significant industrial user (SIU) [see fact sheet definitions or refer to 40 CFR 403.3(v)(i)(ii)].
3. Require all SIUs to obtain a SWDP from Ecology prior to accepting their non-domestic wastewater, or require proof that Ecology has determined they do not require a permit.

4. Require the documentation as described in S6.C.3 at the earliest practicable date as a condition of continuing to accept non-domestic wastewater discharges from a previously undiscovered, currently discharging and unpermitted SIU.
5. Require sources of non-domestic wastewater, which do not qualify as SIUs but merit a degree of oversight, to apply for a SWDP and provide it a copy of the application and any Ecology responses.
6. Keep all records documenting that its users have met the requirements of S6.C.

**S6.D. Identification and reporting of existing, new, and proposed industrial users**

1. The Permittee must take continuous, routine measures to identify all existing, new, and proposed SIUs and potential significant industrial users (PSIUs) discharging or proposing to discharge to the Permittee's sewer system (see **Appendix C** of the fact sheet for definitions).
2. Within 30 days of becoming aware of an unpermitted existing, new, or proposed industrial user who may be a significant industrial user (SIU), the Permittee must notify such user by registered mail that, if classified as an SIU, they must apply to Ecology and obtain a State Waste Discharge Permit. The Permittee must send a copy of this notification letter to Ecology within this same 30-day period.
3. The Permittee must also notify all Potential SIUs (PSIUs), as they are identified, that if their classification should change to an SIU, they must apply to Ecology for a State Waste Discharge Permit within 30 days of such change.

**S6.E. Industrial user survey**

The Permittee must complete an industrial user survey listing all SIUs and potential significant industrial users (PSIUs) discharging to the POTW. At a minimum, the Permittee must develop the list of SIUs and PSIUs by means of a telephone book search, a water utility billing records search, and a physical reconnaissance of the service area. Information on PSIUs must include, at a minimum, the business name, telephone number, address, description of the industrial process(s), and the known wastewater volumes and characteristics.

The Permittee must update the industrial user survey annually. The Permittee must submit the updated Industrial User Survey to Ecology by March 15, 2017 and annually thereafter.

The updated survey must include a list of all new industrial users, as well as existing industrial users, which are known or discovered to have significantly altered processes or disposal practices since submittal of the last survey or survey update. For industrial users for which there are potentially significant non-domestic discharges, the Permittee must obtain and include in the report the minimum information described in the paragraph above for PSIUs.

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

The Permittee must submit an application for renewal of this permit by XXX 1, 2020

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

**S9. Compliance schedule**

By the dates tabulated below, the Permittee must complete the following tasks and submit a report describing, at a minimum:

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

	<b>Tasks</b>	<b>Date Due</b>
1.	Meet WLAs for total ammonia, total phosphorus and CBOD <sub>5</sub> as required by the approved 2010 Spokane River DO TMDL.	March 1, 2021
2.	Meet WQBEL for total PCBs. Implement Toxics Reduction Strategy under Condition S13, and annually report results to Ecology. Continue active participation in the Spokane River Regional Toxics Task Force, and provide required reports to Ecology pursuant to Conditions S13 & S14.	XXX 1 , 2026



## **S10. Spill control plan**

### **S10.A Spill control plan submittals and requirements**

The Permittee must:

1. Submit to Ecology a **spill control plan** for the prevention, containment, and control of spills or unplanned releases of pollutants **by March 15, 2018**.
2. Review the plan at least annually and update the spill plan as needed.
3. Send changes to the plan to Ecology.
4. Follow the plan and any supplements throughout the term of the permit.

### **10.B. Spill control plan components**

The spill control plan must include the following:

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

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

## **S11. Acute toxicity**

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

The Permittee must:

1. Conduct acute toxicity testing on final effluent once in the last summer and once in the last winter prior to submission of the application for permit renewal.
2. Conduct acute toxicity testing on a series of at least five concentrations of effluent, including 100% effluent and a control.
3. Use each of the following species and protocols for each acute toxicity test:

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

4. Submit the results to Ecology **by XXX, 1 2020** (with the permit renewal application).

#### **S11.B. Sampling and reporting requirements**

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

The critical season ACEC equals 27% effluent. The non-critical season ACEC equals 14% effluent

8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing must comply with the acute statistical power standard of 29% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

## S12. Chronic toxicity

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

The Permittee must:

1. Conduct chronic toxicity testing on final effluent once in the last winter and once in the last summer prior to submission of the application for permit renewal.
2. Conduct chronic toxicity testing on a series of at least five concentrations of effluent and a control. This series of dilutions must include the acute critical effluent concentration (ACEC). The critical season ACEC equals 27.0% effluent. The series of dilutions should also contain the CCEC of 2.4% effluent. For the non-critical season, the ACEC equals 14% effluent. The series of dilutions should also contain the non-critical season CCEC of 1.1% effluent.
3. Compare the ACEC to the control using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001.
4. Submit the results to Ecology **by XXX 1, 2020** (with the permit renewal application).
5. Perform chronic toxicity tests with all of the following species and the most recent version of the following protocols:

Freshwater Chronic Test	Species	Method
Fathead minnow survival and growth	<i>Pimephales promelas</i>	EPA-821-R-02-013
Water flea survival and reproduction	<i>Ceriodaphnia dubia</i>	EPA-821-R-02-013

### S12.B. Sampling and reporting requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.

Reports must contain toxicity data, bench sheets, and reference toxicant results for test methods. In addition, the Permittee must submit toxicity test data in electronic format (CETIS export file preferred) for entry into Ecology's database.

2. The Permittee must collect 24-hour composite effluent samples for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Section C. and the Ecology Publication no. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Subsection C. or pristine natural water of sufficient quality for good control performance.
6. The Permittee must conduct whole effluent toxicity tests on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the CCEC and the ACEC. The CCEC and the ACEC may either substitute for the effluent concentrations that are closest to them in the dilution series or be extra effluent concentrations. The critical season ACEC equals 27.0% effluent. The series of dilutions should also contain the CCEC of 2.4% effluent. For the non-critical season, the ACEC equals 14% effluent. The series of dilutions should also contain the non-critical season CCEC of 1.1% effluent.
8. All whole effluent toxicity tests that involve hypothesis testing must comply with the chronic statistical power standard of 39% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

### S13. Toxics Reduction Strategy

Best management practices (BMPs) must be implemented throughout the LLSWD by the Permittee to reduce toxicant loading to both the treatment plant and the Spokane River. The Permittee shall use information generated from the most recent Toxics Management Plan developed during the previous permit cycle to continue the reduction strategy. This proposed permit requires compliance with toxics reduction strategies through the annual submittal of a Best Management Practices Implementation Plan. This BMP Implementation Plan (“The Plan”) must quantify toxic reductions in the collection system and treatment plant effluent to the maximum extent economically practicable. The Plan must detail specific implementation actions used and refine their application annually as based upon monitoring results. The Plan should include figures, maps, and other illustrations depicting BMP placement, use, and implementation.

Influent and effluent at the facility must utilize EPA Method 1668C and follow the frequency as specified in Section S2 of this proposed permit.

While the Permittee may use whatever BMPs are appropriate for the sewershed, the following must be implemented:

- The continuation of source identification and removal actions for PCBs remaining within the Permittee’s municipal wastewater sewer system. The goal of this works toward lowering influent loading to the treatment plant; thereby, reducing toxicant loading to the Spokane River.
- Submittal of an initial BMP Implementation Plan and annual assessments thereafter.
- A technical memo addressing the design influent loading value for PCBs to the Phase II treatment system and subsequent loading evaluations when the influent exceeds the design loading criteria.
- Year round operation of the Phase II membrane filtration upgrade following initiation of operation.
- Continuation of the public outreach and education effort.

Prior to submittal of this annual report, the Permittee must submit a **sampling and quality assurance plan** for Ecology review and approval **by November 1, 2016**. 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. This document is available at: <https://fortress.wa.gov/ecy/publications/SummaryPages/0403030.html>.

All sampling and analysis for The Plan shall be in accordance with the approved quality assurance project plan. All lab sheets and a spreadsheet of raw data should accompany submission of The Plan. Ecology will work with the District to have data uploaded to the Environmental Information Management System (or other) database as it becomes available.

Submit the first annual **BMP Implementation Plan** to Ecology **by April 1, 2017**. The final report must document when the data was successfully loaded into EIM.

The technical memo developed to assess design influent PCB loading shall be submitted to Ecology with the discharge permit application **by XXX 1, 2020.**

## **S14. Measurable Progress Determination**

Ecology will continue the measurable progress determination through this permit cycle. The permittee must submit data collected during activities required in this proposed permit needed for Ecology's next measurable progress assessment. Information collected and presented in the BMP Implementation Plan will be used in the next assessment period which began on January 1, 2015 and will extend through the 4<sup>th</sup> year of this proposed permit. Ecology will work with the LLSWD to identify and collect additional information as needed to help complete the assessment of inputs, outputs and outcomes. The determination will assess progress toward meeting the State's Water Quality Standards.

The Liberty Lake Sewer and Water District must also maintain their active role on the Spokane River Regional Toxics Task Force as part of the measurable progress effort. Ecology considers continued involvement with the Task Force part of maintaining the comprehensive approach to address point and non-point sources of PCB in the Spokane River. This proposed permit requires the Liberty Lake Sewer and Water District to work with the Task Force in accomplishing the following:

Complete the Comprehensive Plan by December 2016, including targets and milestones for achieving water quality standards.

Create a 5-year Strategic Plan with short term goal and strategies, needed financial and technical assistance, and adapt BMP Implementation Plans (based on former TMPs) towards achieving these goals.

Measure Progress through a monitoring program, annual reports, and adaptive measures.

The permittee must share data collected through the District's BMP Implementation Plan with the Task Force and other point source dischargers. This includes quantitative data in addition to feedback on which BMPs are found to be most effective and which ones did not perform as anticipated.

## **R1. Reclaimed Water Production and Beneficial Use**

### **R1.A. Reclaimed water limits**

Beginning after substantial completion of the Phase II upgrade and lasting through the expiration date, the Permittee may produce and distribute Class A reclaimed water in accordance with the terms and conditions of this permit. The Permittee must only distribute reclaimed water for the authorized use and use locations listed in this permit as described in the Ecology-approved reclaimed water engineering report. The Permittee is authorized to distribute reclaimed water to irrigation sites at: **MeadowWood golf course, Liberty Lake golf course and Valley View golf course.**

The Permittee must not distribute reclaimed water that does not meet the treatment, water quality, reliability, and monitoring requirements established by the State of Washington.

The distribution of reclaimed water containing any of the following constituents or parameters more frequently than, or at a concentration in excess of that authorized by this permit violates the terms and conditions of this permit.

Reclaimed Water Quality Limits				
Point of Compliance	Parameter (units) <sup>a</sup>	Average Monthly <sup>b</sup>	7-Day Median <sup>c</sup>	Sample Maximum
Secondary Clarifier Effluent	Dissolved Oxygen (mg/L)	Minimum of 0.2 mg/L		
Filter Effluent Prior to Disinfection	Turbidity (NTU)	0.2	***	0.5
Reclaimed Water - After Disinfection	BOD <sub>5</sub> (mg/L)	10	***	15
	TSS (mg/L)	10	***	15
	Total Nitrogen, as N (mg/L)	10	***	15
	Total Coliform <sup>d</sup> (MPN per 100 mL)	***	2.2	23
	pH (standard units)	Minimum	Maximum	
6.5		8.5		
<b>Table Notes:</b>				
<p><sup>a</sup> "mg/L" = milligrams per liter                      "NTU" = nephelometric turbidity units                      "BOD<sub>5</sub>" = five day Biochemical Oxygen Demand                      "TSS" = Total Suspended Solids                      "Total nitrogen" = total Kjeldahl nitrogen (TKN) + nitrate + nitrite                      "MPN per 100 mL" = Most Probable Number per 100 milliliters</p>				
<p><sup>b</sup> To calculate the treated level to compare to these treatment limits, use the current version of the "Information Manual for Treatment Plant Operators" (Ecology Publication Number 04-10-020), available at: <a href="http://www.ecy.wa.gov/pubs/0410020.pdf">http://www.ecy.wa.gov/pubs/0410020.pdf</a>.</p>				

Reclaimed Water Quality Limits				
Point of Compliance	Parameter (units) <sup>a</sup>	Average Monthly <sup>b</sup>	7-Day Median <sup>c</sup>	Sample Maximum
<sup>c</sup> Calculate the median value using the values from the last 7 days of total coliform analyses. Determine the median by listing all the values in order from the lowest to highest value, then selecting the value in the middle of this list (the fourth value).				
<sup>d</sup> Determine the total coliform value using the <i>Enzyme Substrate Coliform Test</i> , Method 9223 from the "Standard Methods for the Examination of Water and Wastewater", 22 <sup>nd</sup> Edition (2012).				

**R1.B. Reclaimed water use requirements**

The Permittee must meet the following requirements prior to distributing reclaimed water.

1. The class of reclaimed water provided must meet or exceed the minimum requirements for the proposed beneficial use, including source control, treatment, water quality limits, monitoring, reporting, record keeping, operation and maintenance, distribution, and use.
2. The Permittee must develop general language, symbols, and colors to be used for notification signs at the irrigation sites to inform the public or employees that the water is not intended for drinking. The signs must be used in all reclaimed water use areas. All reclaimed water valves, storage facilities, and outlets must be tagged or labeled. The signage or advisory notification must be colored purple with white or black lettering.
3. For reclaimed water distribution to use areas are under direct control of the Permittee, the Permittee must be responsible for all facilities and activities regarding the distribution and use of the reclaimed water.
4. For reclaimed water distribution to use areas are not under direct control of the Permittee, the Permittee must submit to Ecology and the Department of Health the *Service and Use Area Agreement* contract between the Permittee and the end user.
  - a. The *Service and Use Area Agreements* must provide the Permittee with the authority to terminate service of reclaimed water to any customer violating the state’s reclaimed water regulations or the restrictions outlined in the *Service and Use Area Agreement*.
  - b. The Permittee may submit a model *Service and Use Area Agreement* for multiple sites with similar beneficial uses. Once a model agreement is approved, the Permittee must submit subsequent individual use agreements to Ecology but the individual agreements will not require Ecology approval.
5. The Permittee must complete a local Reclaimed Water Ordinance to include policies and procedures for the distribution and delivery of reclaimed water.



The ordinance must provide the Permittee with the authority to terminate service of reclaimed water to any customer violating the state's reclaimed water regulations.

6. Cross-connection control program.
  - a. The Permittee must coordinate with the local water system purveyor(s) to assure all necessary information has been provided so the purveyor(s) are able to submit the annual cross-connection control report to the Department of Health, Office of Drinking Water, as required by chapter 246-290-490 WAC.
  - b. The Permittee must assure that the local water system purveyor(s) are notified of all new uses or users for inclusion in the annual reports.

**R1.C. Authorization for new irrigation sites served by reclaimed water**

To authorize any new irrigation sites using reclaimed water, the Permittee must submit an updated engineering report to Ecology for review and approval in accordance with RCW 90.46 and the 1997 Washington State *Water Reclamation and Reuse Standards*, as amended or superseded by applicable WAC regulation. The report must include the following:

1. Description of the reclaimed water distribution system.
2. Identification of uses, users, purveyors, and locations of irrigation sites.
3. An evaluation of irrigation sites to include at a minimum estimated volume of reclaimed water use at each site and means of application.

**R1.D. Authorization for new types of reclaimed water uses**

To authorize any new type of reclaimed water use such as wetlands restoration, the Permittee must submit an updated engineering report to Ecology for review and approval in accordance with RCW 90.46 and the 1997 Washington State *Water Reclamation and Reuse Standards*, as amended or superseded by applicable WAC regulation.

Once the application and report are approved, Ecology will reopen this permit for review and public comment to authorize the new type of use.

## General Conditions

### G1. Signatory requirements

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

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

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

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

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

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

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

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

## **G3. Permit actions**

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

1. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
  - a. Violation of any permit term or condition.
  - b. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### **G9. Removed substances**

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

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

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

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

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

### **G12. Additional monitoring**

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

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

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

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

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

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

## **G15. Upset**

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

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

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

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

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

## **G16. Property rights**

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

## **G17. Duty to comply**

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

## **G18. Toxic pollutants**

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

## **G19. Penalties for tampering**

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

## **G20. Compliance schedules**

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

## **G21. Service agreement review**

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



## APPENDIX A

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

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

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

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

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

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

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

### **CONVENTIONAL PARAMETERS**

<b>Pollutant &amp; CAS No. (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
Soluble Biochemical Oxygen Demand	SM5210-B <sup>3</sup>		2 mg/L
Chemical Oxygen Demand	SM5220-D		10 mg/L
Total Organic Carbon	SM5310-B/C/D		1 mg/L
Total Suspended Solids	SM2540-D		5 mg/L
Total Ammonia (as N)	SM4500-NH3-B and C/D/E/G/H		20

<b>Pollutant &amp; CAS No. (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>
Flow	Calibrated device		
Dissolved Oxygen	SM4500-OC/OG		0.2 mg/L
Temperature (max. 7-day avg.)	Analog recorder or Use micro-recording devices known as thermistors		0.2° C
pH	SM4500-H <sup>+</sup> B	N/A	N/A

### **NONCONVENTIONAL PARAMETERS**

<b>Pollutant &amp; CAS No. (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 Alkalinity	SM2320-B		5 mg/L as CaCO <sub>3</sub>
Chlorine, Total Residual	SM4500 CI G		50.0
Color	SM2120 B/C/E		10 color units
Fecal Coliform	SM 9221E,9222	N/A	Specified in method - sample aliquot dependent
Fluoride (16984-48-8)	SM4500-F E	25	100
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
Soluble Reactive Phosphorus (as P)	SM4500- PE/PF	3	10
Phosphorus, Total (as P)	SM 4500 PB followed by SM4500-PE/PF	3	10
Oil and Grease (HEM)	1664 A or B	1,400	5,000
Salinity	SM2520-B		3 practical salinity units or scale (PSU or PSS)
Settleable Solids	SM2540 -F		100
Sulfate (as mg/L SO <sub>4</sub> )	SM4110-B		200
Sulfide (as mg/L S)	SM4500-S <sup>2</sup> F/D/E/G		200
Sulfite (as mg/L SO <sub>3</sub> )	SM4500-SO <sub>3</sub> B		2000
Total Coliform	SM 9221B, 9222B, 9223B	N/A	Specified in method - sample aliquot dependent
Total Dissolved Solids	SM2540 C		20 mg/L
Total Hardness	SM2340B		200 as CaCO <sub>3</sub>
Aluminum, Total (7429-90-5)	200.8	2.0	10
Barium Total (7440-39-3)	200.8	0.5	2.0
BTEX (benzene +toluene + ethylbenzene + m,o,p xylenes)	EPA SW 846 8021/8260	1	2

<b>Pollutant &amp; CAS No. (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>
Boron Total (7440-42-8)	200.8	2.0	10.0
Cobalt, Total (7440-48-4)	200.8	0.05	0.25
Iron, Total (7439-89-6)	200.7	12.5	50
Magnesium, Total (7439-95-4)	200.7	10	50
Molybdenum, Total (7439-98-7)	200.8	0.1	0.5
Manganese, Total (7439-96-5)	200.8	0.1	0.5
NWTPH Dx <sup>4</sup>	Ecology NWTPH Dx	250	250
NWTPH Gx <sup>5</sup>	Ecology NWTPH Gx	250	250
Tin, Total (7440-31-5)	200.8	0.3	1.5
Titanium, Total (7440-32-6)	200.8	0.5	2.5

**PRIORITY POLLUTANTS**

<b>Pollutant &amp; CAS No. (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>
<b>METALS, CYANIDE &amp; TOTAL PHENOLS</b>			
Antimony, Total (7440-36-0)	200.8	0.3	1.0
Arsenic, Total (7440-38-2)	200.8	0.1	0.5
Beryllium, Total (7440-41-7)	200.8	0.1	0.5
Cadmium, Total (7440-43-9)	200.8	0.05	0.25
Chromium (hex) dissolved (18540-29-9)	SM3500-Cr EC	0.3	1.2
Chromium, Total (7440-47-3)	200.8	0.2	1.0
Copper, Total (7440-50-8)	200.8	0.4	2.0
Lead, Total (7439-92-1)	200.8	0.1	0.5
Mercury, Total (7439-97-6)	1631E	0.0002	0.0005
Nickel, Total (7440-02-0)	200.8	0.1	0.5
Selenium, Total (7782-49-2)	200.8	1.0	1.0
Silver, Total (7440-22-4)	200.8	0.04	0.2
Thallium, Total (7440-28-0)	200.8	0.09	0.36
Zinc, Total (7440-66-6)	200.8	0.5	2.5
Cyanide, Total (57-12-5)	335.4	5	10
Cyanide, Weak Acid Dissociable	SM4500-CN I	5	10
Cyanide, Free Amenable to Chlorination (Available Cyanide)	SM4500-CN G	5	10
Phenols, Total	EPA 420.1		50

<b>Pollutant &amp; CAS No. (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>
<b>ACID COMPOUNDS</b>			
2-Chlorophenol (95-57-8)	625	1.0	2.0
2,4-Dichlorophenol (120-83-2)	625	0.5	1.0
2,4-Dimethylphenol (105-67-9)	625	0.5	1.0
4,6-dinitro-o-cresol (534-52-1) (2-methyl-4,6,-dinitrophenol)	625/1625B	1.0	2.0
2,4 dinitrophenol (51-28-5)	625	1.0	2.0
2-Nitrophenol (88-75-5)	625	0.5	1.0
4-nitrophenol (100-02-7)	625	0.5	1.0
Parachlorometa cresol (59-50-7) (4-chloro-3-methylphenol)	625	1.0	2.0
Pentachlorophenol (87-86-5)	625	0.5	1.0
Phenol (108-95-2)	625	2.0	4.0
2,4,6-Trichlorophenol (88-06-2)	625	2.0	4.0

**PRIORITY POLLUTANTS (continued)**

<b>Pollutant &amp; CAS No. (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>
<b>VOLATILE COMPOUNDS</b>			
Acrolein (107-02-8)	624	5	10
Acrylonitrile (107-13-1)	624	1.0	2.0
Benzene (71-43-2)	624	1.0	2.0
Bromoform (75-25-2)	624	1.0	2.0
Carbon tetrachloride (56-23-5)	624/601 or SM6230B	1.0	2.0
Chlorobenzene (108-90-7)	624	1.0	2.0
Chloroethane (75-00-3)	624/601	1.0	2.0
2-Chloroethylvinyl Ether (110-75-8)	624	1.0	2.0
Chloroform (67-66-3)	624 or SM6210B	1.0	2.0
Dibromochloromethane (124-48-1)	624	1.0	2.0
1,2-Dichlorobenzene (95-50-1)	624	1.9	7.6
1,3-Dichlorobenzene (541-73-1)	624	1.9	7.6
1,4-Dichlorobenzene (106-46-7)	624	4.4	17.6
Dichlorobromomethane (75-27-4)	624	1.0	2.0

<b>Pollutant &amp; CAS No. (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>
<b>VOLATILE COMPOUNDS</b>			
1,1-Dichloroethane (75-34-3)	624	1.0	2.0
1,2-Dichloroethane (107-06-2)	624	1.0	2.0
1,1-Dichloroethylene (75-35-4)	624	1.0	2.0
1,2-Dichloropropane (78-87-5)	624	1.0	2.0
1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene) (542-75-6) <sup>6</sup>	624	1.0	2.0
Ethylbenzene (100-41-4)	624	1.0	2.0
Methyl bromide (74-83-9) (Bromomethane)	624/601	5.0	10.0
Methyl chloride (74-87-3) (Chloromethane)	624	1.0	2.0
Methylene chloride (75-09-2)	624	5.0	10.0
1,1,2,2-Tetrachloroethane (79-34-5)	624	1.9	2.0
Tetrachloroethylene (127-18-4)	624	1.0	2.0
Toluene (108-88-3)	624	1.0	2.0
1,2-Trans-Dichloroethylene (156-60-5) (Ethylene dichloride)	624	1.0	2.0
1,1,1-Trichloroethane (71-55-6)	624	1.0	2.0
1,1,2-Trichloroethane (79-00-5)	624	1.0	2.0
Trichloroethylene (79-01-6)	624	1.0	2.0
Vinyl chloride (75-01-4)	624/SM6200B	1.0	2.0

**PRIORITY POLLUTANTS (continued)**

<b>Pollutant &amp; CAS No. (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>
<b>BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)</b>			
Acenaphthene (83-32-9)	625	0.2	0.4
Acenaphthylene (208-96-8)	625	0.3	0.6
Anthracene (120-12-7)	625	0.3	0.6
Benzidine (92-87-5)	625	12	24
Benzyl butyl phthalate (85-68-7)	625	0.3	0.6
Benzo(a)anthracene (56-55-3)	625	0.3	0.6
Benzo(b)fluoranthene (3,4-benzofluoranthene) (205-99-2) <sup>7</sup>	610/625	0.8	1.6

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) <sup>1</sup> µg/L unless specified	Quantitation Level (QL) <sup>2</sup> µg/L unless specified
<b>BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)</b>			
<b>Benzo(j)fluoranthene (205-82-3)</b> <sup>7</sup>	625	0.5	1.0
Benzo(k)fluoranthene (11,12-benzofluoranthene) (207-08-9) <sup>7</sup>	610/625	0.8	1.6
<b>Benzo(r,s,t)pentaphene (189-55-9)</b>	625	0.5	1.0
Benzo(a)pyrene (50-32-8)	610/625	0.5	1.0
Benzo(ghi)Perylene (191-24-2)	610/625	0.5	1.0
Bis(2-chloroethoxy)methane (111-91-1)	625	5.3	21.2
Bis(2-chloroethyl)ether (111-44-4)	611/625	0.3	1.0
Bis(2-chloroisopropyl)ether (39638-32-9)	625	0.3	0.6
Bis(2-ethylhexyl)phthalate (117-81-7)	625	0.1	0.5
4-Bromophenyl phenyl ether (101-55-3)	625	0.2	0.4
2-Chloronaphthalene (91-58-7)	625	0.3	0.6
4-Chlorophenyl phenyl ether (7005-72-3)	625	0.3	0.5
Chrysene (218-01-9)	610/625	0.3	0.6
<b>Dibenzo (a,h)acridine (226-36-8)</b>	610M/625M	2.5	10.0
<b>Dibenzo (a,i)acridine (224-42-0)</b>	610M/625M	2.5	10.0
Dibenzo(a-h)anthracene (53-70-3)(1,2,5,6-dibenzanthracene)	625	0.8	1.6
Dibenzo(a,e)pyrene (192-65-4)	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene (189-64-0)	625M	2.5	10.0
3,3-Dichlorobenzidine (91-94-1)	605/625	0.5	1.0
Diethyl phthalate (84-66-2)	625	1.9	7.6
Dimethyl phthalate (131-11-3)	625	1.6	6.4
Di-n-butyl phthalate (84-74-2)	625	0.5	1.0
2,4-dinitrotoluene (121-14-2)	609/625	0.2	0.4
2,6-dinitrotoluene (606-20-2)	609/625	0.2	0.4

**PRIORITY POLLUTANTS (continued)**

<b>Pollutant &amp; CAS No. (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>
<b>BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)</b>			
Di-n-octyl phthalate (117-84-0)	625	0.3	0.6
1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	1625B	5.0	20
Fluoranthene (206-44-0)	625	0.3	0.6
Fluorene (86-73-7)	625	0.3	0.6
Hexachlorobenzene (118-74-1)	612/625	0.3	0.6
Hexachlorobutadiene (87-68-3)	625	0.5	1.0
Hexachlorocyclopentadiene (77-47-4)	1625B/625	0.5	1.0
Hexachloroethane (67-72-1)	625	0.5	1.0
Indeno(1,2,3-cd)Pyrene (193-39-5)	610/625	0.5	1.0
Isophorone (78-59-1)	625	0.5	1.0
<b>3-Methyl cholanthrene (56-49-5)</b>	625	2.0	8.0
Naphthalene (91-20-3)	625	0.3	0.6
Nitrobenzene (98-95-3)	625	0.5	1.0
N-Nitrosodimethylamine (62-75-9)	607/625	2.0	4.0
N-Nitrosodi-n-propylamine (621-64-7)	607/625	0.5	1.0
N-Nitrosodiphenylamine (86-30-6)	625	0.5	1.0
<b>Perylene (198-55-0)</b>	625	1.9	7.6
Phenanthrene (85-01-8)	625	0.3	0.6
Pyrene (129-00-0)	625	0.3	0.6
1,2,4-Trichlorobenzene (120-82-1)	625	0.3	0.6
<b>DIOXIN</b>			
2,3,7,8-Tetra-Chlorodibenzo- P-Dioxin (176-40-16) (2,3,7,8 TCDD)	1613B	1.3 pg/L	5 pg/L

**PRIORITY POLLUTANTS (continued)**

<b>Pollutant &amp; CAS No. (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>
<b>PESTICIDES/PCBs</b>			
Aldrin (309-00-2)	608	0.025	0.05
alpha-BHC (319-84-6)	608	0.025	0.05
beta-BHC (319-85-7)	608	0.025	0.05
gamma-BHC (58-89-9)	608	0.025	0.05
delta-BHC (319-86-8)	608	0.025	0.05
Chlordane (57-74-9) <sup>8</sup>	608	0.025	0.05
4,4'-DDT (50-29-3)	608	0.025	0.05
4,4'-DDE (72-55-9)	608	0.025	0.05 <sup>10</sup>
4,4' DDD (72-54-8)	608	0.025	0.05
Dieldrin (60-57-1)	608	0.025	0.05
alpha-Endosulfan (959-98-8)	608	0.025	0.05
beta-Endosulfan (33213-65-9)	608	0.025	0.05
Endosulfan Sulfate (1031-07-8)	608	0.025	0.05
Endrin (72-20-8)	608	0.025	0.05
Endrin Aldehyde (7421-93-4)	608	0.025	0.05
Heptachlor (76-44-8)	608	0.025	0.05
Heptachlor Epoxide (1024-57-3)	608	0.025	0.05
PCB-1242 (53469-21-9) <sup>9</sup>	608 - Modified	0.05	0.2
PCB-1254 (11097-69-1)	608 - Modified	0.05	0.2
PCB-1221 (11104-28-2)	608 - Modified	0.05	0.2
PCB-1232 (11141-16-5)	608 - Modified	0.05	0.2
PCB-1248 (12672-29-6)	608 - Modified	0.05	0.2
PCB-1260 (11096-82-5)	608 - Modified	0.05	0.2
PCB-1016 (12674-11-2) <sup>9</sup>	608 - Modified	0.05	0.2
Toxaphene (8001-35-2)	608 - Modified	0.24	0.5

1. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.
2. Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1, 2, or 5) x 10<sup>n</sup>, 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.
  - 1.
4. NWTPH Dx - Northwest Total Petroleum Hydrocarbons Diesel Extended Range – see <http://www.ecy.wa.gov/biblio/97602.html>
  - 2.
5. NWTPH Gx - Northwest Total Petroleum Hydrocarbons Gasoline Extended Range – see <http://www.ecy.wa.gov/biblio/97602.html>
6. 1, 3-dichloroproylene (mixed isomers) You may report this parameter as two separate parameters: cis-1, 3-dichloropropene (10061-01-5) and trans-1, 3-dichloropropene (10061-02-6).
7. Total Benzofluoranthenes - Because Benzo(b)fluoranthene, Benzo(j)fluoranthene and Benzo(k)fluoranthene co-elute you may report these three isomers as total benzofluoranthenes.
8. Chlordane – You may report alpha-chlordane (5103-71-9) and gamma-chlordane (5103-74-2) in place of chlordane (57-74-9). If you report alpha and gamma-chlordane, the DL/PQLs that apply are 0.025/0.050.
9. PCB 1016 & PCB 1242 – You may report these two PCB compounds as one parameter called PCB 1016/1242.