

Issue Date:  
Effective Date:  
Expiration Date:

**National Pollutant Discharge Elimination System Waste Discharge  
Permit No. WA0024473**

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.

City of Spokane Riverside Park Water Reclamation Facility and Combined Sewer Overflows  
(CSOs)  
4401 N. Aubrey L. White Parkway  
Spokane, Washington 99205

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

Plant Location:  
4401 N. Aubrey L. White Parkway

Receiving Water: Spokane River  
CSO Outfalls: 20 Outfalls

Treatment Type: Activated Sludge

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James M. Bellatty  
Water Quality Section Manager  
Eastern Regional Office  
Washington State Department of  
Ecology

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## Summary of Permit Report Submittals

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	XXXX 15, 2016
S3.A	Permit Renewal Application Monitoring Data	1/permit cycle	August 1, 2020
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	April 1, 2017
S5.F	Bypass Notification	As necessary	-
S5.G	Operations and Maintenance Manual Update or Review Confirmation Letter	Annually	April 1, 2017
S6.A.2	Accidental Spill Plan Update	1/permit cycle	April 1, 2017
S6.A.5	Pretreatment Report	1/year	April 1, 2017
S6.A.6	Request to Make Changes to Pretreatment Program	As necessary	-
S8.	Application for Permit Renewal	1/permit cycle	Insert date from S8
S9.	Compliance Schedule	Once	March 1, 2021
S10.	Spill Control Plan Submittal "or" Update	As necessary	-
S11.	Receiving Water and Effluent Study of Temperature – Quality Assurance Plan	1/permit cycle	December 1, 2016
S11.	Receiving Water and Effluent Study of Temperature Results	Annually	December 31, 2017
S12.	Receiving Water Study – Quality Assurance Plan	1/permit cycle	December 1, 2017
S12.	Receiving Water Study Results	1/permit cycle	December 31, 2018
S13.	BMP Implementation Plan – Quality Assurance Project Plan	1/permit cycle	November 1, 2016

<b>Permit Section</b>	<b>Submittal</b>	<b>Frequency</b>	<b>First Submittal Date</b>
S13.	BMP Implementation Plan	Annually	April 1, 2017
S13.	Technical Memo for NLT Toxics Influent Loading Design Criteria	1/permit cycle	August 1, 2020
S15.B	Combined Sewer Overflow Report	Annually	May 1, 2017
S15.C	Combined Sewer Overflow Reduction Plan Amendment	As necessary	-
S15.D	Combined Sewer Overflow Reduction Specific Project Milestones/Goals	Once	December 31, 2017
S15.G	Combined Sewer Overflow Control Requirements	Annually	See S15.G
S16.A	Acute Toxicity Effluent Test Results - Submit with Permit Renewal Application	Once	August 1, 2020
S17.A	Chronic Toxicity Effluent Test Results with Permit Renewal Application	Once	August 1, 2020
G1.	Notice of Change in Authorization	As necessary	-
G4.	Reporting Planned Changes	As necessary	-
G5.	Engineering Report for Construction or Modification Activities	As necessary	-
G7.	Notice of Permit Transfer	As necessary	-
G10.	Duty to Provide Information	As necessary	-
G20.	Compliance Schedules	As necessary	-
G21.	Contract Submittal	As necessary	-

## Special Conditions

### S1. Discharge limits

#### S1.A. Interim 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>Interim Effluent Limits: Outfall 005</b>		
<b>March through October</b>		
<b>Latitude 47.695278 Longitude 117.473889</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> )	30 milligrams/liter (mg/L) 10,374 pounds/day (lbs/day) 85% removal of influent BOD <sub>5</sub>	45 mg/L 15,562 lbs/day
Total Suspended Solids (TSS)	30 mg/L 10,660 lbs/day 85% removal of influent TSS	45 mg/L 15,990 lbs/day
Total Phosphorus (as P)	0.63 mg/L	0.95 mg/L
Total PCB (Interim)	0.0027 µg/L	0.0041 µg/L
<b>Parameter</b>	<b>Minimum</b>	<b>Maximum</b>
pH	6.0 standard units	9.0 standard units
<b>Parameter</b>	<b>Monthly Geometric Mean</b>	<b>Weekly Geometric Mean</b>
Fecal Coliform Bacteria <sup>c</sup>	100/100 milliliter (mL)	200/100 mL
<b>Parameter</b>	<b>Average Monthly</b>	<b>Maximum Daily <sup>d</sup></b>
Total Residual Chlorine	3.12 lbs/day	14.26 lbs/day
Total Ammonia (as N)	3.1 mg/L	7.5 mg/L
Zinc (Total Recoverable)	52.3 µg/L	61.3 µg/L
Lead (Total Recoverable)	0.76 µg/L	0.95 µg/L
Cadmium (Total Recoverable)	0.094 µg/L	0.12 µg/L

<b>Interim Effluent Limits: Outfall 005</b>		
<b>March through October</b>		
<b>Latitude 47.695278 Longitude 117.473889</b>		
Total PCB (Final) <sup>e</sup>	--	0.00017 µg/L
a	Average Monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured. See footnote c for fecal coliform calculations.	
b	Average Weekly discharge limit means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges' measured during that week. See footnote c for fecal coliform calculations.	
c	Ecology provides directions to calculate the monthly and the weekly geometric mean in publication No. 04-10-020, Information Manual for Treatment Plant Operators available at: <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	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>Interim Effluent Limits: Outfall 005</b>		
<b>November - February</b>		
<b>Latitude 47.695278 Longitude 117.473889</b>		
Parameter	Average Monthly <sup>a</sup>	Average Weekly <sup>b</sup>
Biochemical Oxygen Demand (5-day) (BOD <sub>5</sub> )	30 milligrams/liter (mg/L) 10,374 pounds/day (lbs/day) 85% removal of influent BOD <sub>5</sub>	45 mg/L 15,562 lbs/day
Total Suspended Solids (TSS)	30 mg/L 10,660 lbs/day 85% removal of influent TSS	45 mg/L 15,990 lbs/day
Total PCB (Interim)	0.0019 µg/L	0.0029 µg/L
Parameter	Minimum	Maximum
pH	6.0 standard units	9.0 standard units

Interim Effluent Limits: Outfall 005 November - February Latitude 47.695278 Longitude 117.473889		
Parameter	Monthly Geometric Mean	Weekly Geometric Mean
Fecal Coliform Bacteria <sup>c</sup>	100/100 milliliter (mL)	200/100 mL
Parameter	Average Monthly	Maximum Daily <sup>d</sup>
Total Residual Chlorine	3.12 lbs/day	14.26 lbs/day
Zinc (Total Recoverable)	60.6 µg/L	71.6 µg/L
Lead (Total Recoverable)	0.75 µg/L	0.87 µg/L
Cadmium (Total Recoverable)	0.134 µg/L	0.18 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 <sup>1</sup> 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>	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>Final Effluent Limits: Outfall 005</b> <b>March through October</b> <b>Latitude 47.695278 Longitude 117.473889</b>		
Parameter	Average Monthly <sup>a</sup>	Average Weekly <sup>b</sup>
Total Suspended Solids (TSS)	30 mg/L 10,660 lbs/day 85% removal of influent TSS	45 mg/L 15,990 lbs/day
Total PCB (Interim)	0.0027 µg/L	0.0041 µg/L
Parameter	Minimum	Maximum
pH	6.0 standard units	9.0 standard units
Parameter	Monthly Geometric Mean	Weekly Geometric Mean
Fecal Coliform Bacteria <sup>c</sup>	100/100 milliliter (mL)	200/100 mL
Parameter	Average Monthly	Maximum Daily <sup>d</sup>
Total Residual Chlorine	3.12 lbs/day	14.26 lbs/day
Zinc (Total Recoverable)	52.3 µg/L	61.3 µg/L
Lead (Total Recoverable)	0.76 µg/L	0.95 µg/L
Cadmium (Total Recoverable)	0.094µg/L	0.12 µg/L
Total PCB (Final) <sup>g</sup>	--	0.00017 µg/L
Parameter	Seasonal Average <sup>e</sup>	
Total Ammonia (as NH3-N) <sup>f</sup>	March – May: 351 lbs/day June – September: 89 lbs/day October: 351 lbs/day	
Total Phosphorus	17.8 lbs/day	
Carbonaceous Biochemical Oxygen Demand – 5 day (CBOD <sub>5</sub> ) <sup>f</sup>	1,781 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.	

<b>Final Effluent Limits: Outfall 005</b> <b>March through October</b> <b>Latitude 47.695278 Longitude 117.473889</b>	
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	Seasonal ammonia loading limits calculated based on design flows listed in 2010 Spokane River DO TMDL and listed concentrations.
f	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.
g	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>Final Effluent Limits: Outfall 005</b> <b>November – February</b> <b>Latitude 47.695278 Longitude 117.473889</b>		
Parameter	Average Monthly <sup>a</sup>	Average Weekly <sup>b</sup>
Carbonaceous Biochemical Oxygen Demand (5-day) (CBOD <sub>5</sub> )	25 milligrams/liter (mg/L) 11,759 pounds/day (lbs/day) 85% removal of influent BOD <sub>5</sub>	40 mg/L 18,815 lbs/day
Total Suspended Solids (TSS)	30 mg/L 10,660 lbs/day 85% removal of influent TSS	45 mg/L 15,990 lbs/day
Total PCB (Interim)	0.0019 µg/L	0.0029 µg/L
Parameter	Minimum	Maximum
pH	6.0 standard units	9.0 standard units
Parameter	Monthly Geometric Mean	Weekly Geometric Mean
Fecal Coliform Bacteria <sup>c</sup>	100/100 milliliter (mL)	200/100 mL

<b>Final Effluent Limits: Outfall 005</b> <b>November – February</b> <b>Latitude 47.695278 Longitude 117.473889</b>		
Parameter	Average Monthly	Maximum Daily <sup>d</sup>
Total Residual Chlorine	3.12 lbs/day	14.26 lbs/day
Zinc (Total Recoverable)	60.6 µg/L	71.6 µg/L
Lead (Total Recoverable)	0.75 µg/L	0.87 µg/L
Cadmium (Total Recoverable)	0.134 µg/L	0.18 µg/L
Total PCB (Final) <sup>e</sup>	--	0.00017 µg/L
a	Average Monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured. See footnote c for fecal coliform calculations.	
b	Average Weekly discharge limit means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges <sup>1</sup> 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	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>Final Effluent Limits: CSO Outfalls <sup>a</sup></b> <b>Latitude Varies per Outfall Longitude Varies per Outfall</b>	
Parameter	Seasonal Average
Total Ammonia (as NH <sub>3</sub> -N)	1.0 lbs/day
Total Phosphorus	0.95 lbs/day

<b>Final Effluent Limits: CSO Outfalls <sup>a</sup></b>	
<b>Latitude Varies per Outfall</b>	<b>Longitude Varies per Outfall</b>
Carbonaceous Biochemical Oxygen Demand – 5 day (CBOD <sub>5</sub> )	30.0 lbs/day
<sup>a</sup>	Limits apply cumulatively to all active CSO outfalls and should be reported as required in S2.B starting on March 1, 2021.

**S1.C. Mixing zone authorization**

**Mixing zone for Outfall 005**

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 50 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 5 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) March - October</b>	
Acute Aquatic Life Criteria	1.2
Chronic Aquatic Life Criteria	3.1
Human Health Criteria - Carcinogen	11.9
Human Health Criteria - Non-carcinogen	3.6

<b>Available Dilution (dilution factor) November - February</b>	
Acute Aquatic Life Criteria	1.3
Chronic Aquatic Life Criteria	5.7
Human Health Criteria - Carcinogen	19.5
Human Health Criteria - Non-carcinogen	7.0

## 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	Daily <sup>i</sup>	24-Hour Composite <sup>c</sup>
Biochemical Oxygen Demand (BOD <sub>5</sub> )	lbs/day	Daily <sup>i</sup>	Calculated <sup>e</sup>
CBOD <sub>5</sub>	mg/L	Daily <sup>i</sup>	24-Hour Composite <sup>c</sup>
CBOD <sub>5</sub>	lbs/day	Daily <sup>i</sup>	Calculated <sup>e</sup>
Total Suspended Solids (TSS)	mg/L	Daily <sup>i</sup>	24-Hour Composite <sup>c</sup>
Total Suspended Solids (TSS)	lbs/day	Daily <sup>i</sup>	Calculated <sup>e</sup>
Temperature	°C	Daily <sup>i</sup>	Grab <sup>b</sup>
Total Ammonia	mg/L	3/week <sup>j</sup>	24-Hour Composite <sup>c</sup>
Total Ammonia	lbs/day	3/week <sup>j</sup>	Calculated <sup>e</sup>
Total Phosphorus	mg/L	3/week <sup>j</sup>	24-Hour Composite <sup>c</sup>
Total Phosphorus	lbs/day	3/week <sup>j</sup>	Calculated <sup>e</sup>
Aluminum (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>
Arsenic (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Cadmium (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>
Copper (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>
Mercury (Total Recoverable)	ng/L	1/month <sup>k</sup>	24-Hour Composite <sup>c</sup>
Silver (Total Recoverable)	µg/L	1/month <sup>k</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 chlorine contact chamber or other disinfection process. The Permittee may take effluent samples for the CBOD <sub>5</sub> /BOD <sub>5</sub> analysis before or after the disinfection process. If taken after, the Permittee must dechlorinate and reseed the sample.			
Flow	MGD	Continuous <sup>a</sup>	Metered/recorded
pH <sup>f</sup>	Standard Units	Daily <sup>i</sup>	Metered
Temperature <sup>q</sup>	Degrees Centigrade (°C)	Daily <sup>i</sup>	Grab <sup>b</sup>
7DADMax Temperature <sup>r</sup>	°C	Daily <sup>i</sup>	Calculated
Dissolved Oxygen <sup>p</sup>	mg/L	Daily <sup>i</sup>	Grab <sup>b</sup>
Chlorine (Total Residual)	µg/L	Daily <sup>i</sup>	Grab <sup>b</sup>
Chlorine (Total Residual)	lbs/day	Daily <sup>i</sup>	Calculated <sup>e</sup>
Total Ammonia as N	mg/L	Daily <sup>i</sup>	24-Hour Composite <sup>c</sup>
Total Ammonia as N	lbs/day	Daily <sup>i</sup>	Calculated <sup>e</sup>
BOD <sub>5</sub> <sup>h</sup>	mg/L	Daily <sup>i</sup>	24-Hour Composite <sup>c</sup>

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
BOD <sub>5</sub>	lbs/day	Daily <sup>i</sup>	Calculated <sup>e</sup>
BOD <sub>5</sub>	% removal <sup>d</sup>	Daily <sup>i</sup>	Calculated
CBOD <sub>5</sub> <sup>h</sup>	mg/L	Daily <sup>i</sup>	24-Hour Composite <sup>c</sup>
CBOD <sub>5</sub>	lbs/day	Daily <sup>i</sup>	Calculated <sup>e</sup>
CBOD <sub>5</sub>	% removal <sup>d</sup>	Daily <sup>i</sup>	Calculated
TSS	mg/L	Daily <sup>i</sup>	24-Hour Composite <sup>c</sup>
TSS	lbs/day	Daily <sup>i</sup>	Calculated <sup>e</sup>
TSS	% removal <sup>d</sup>	Daily <sup>i</sup>	Calculated
Total Phosphorus as P	µg/L	Daily <sup>i</sup>	24-Hour Composite <sup>c</sup>
Total Phosphorus as P	lbs/day	Daily <sup>i</sup>	Calculated <sup>e</sup>
Total Reactive Phosphorus	µg/L	Daily <sup>i</sup>	24-Hour Composite <sup>c</sup>
Total Reactive Phosphorus	lbs/day	Daily <sup>i</sup>	Calculated <sup>e</sup>
Fecal Coliform <sup>g</sup>	MPN/100 mL	3/week <sup>j</sup>	Grab <sup>b</sup>
Aluminum (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>
Arsenic (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>
Cadmium (Total Recoverable)	µg/L	2/month <sup>l</sup>	24-Hour Composite <sup>c</sup>
Copper (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>
Mercury (Total Recoverable)	ng/L	1/month <sup>k</sup>	24-Hour Composite <sup>c</sup>

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Silver (Total Recoverable)	µg/L	1/month <sup>k</sup>	24-Hour Composite <sup>c</sup>
Total Hardness as CaCO <sub>3</sub>	mg/L	1/month <sup>k</sup>	24-Hour Composite <sup>c</sup>
Total Alkalinity as CaCO <sub>3</sub>	mg/L	1/month <sup>k</sup>	24-Hour Composite <sup>c</sup>
Total PCB <sup>s</sup>	µg/L	2/year <sup>n</sup>	24-Hour Composite <sup>c</sup>
<b>(3) 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>
PBDE	pg/L	2/year <sup>n</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>(4) 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. Priority pollutant testing results to be submitted with the wastewater discharge permit application <b>by XX/XX/XXXX.</b>			
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>

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
PP – Base-neutral Compounds	µg/L	3/permit cycle <sup>o</sup>	24-Hour Composite <sup>c</sup>
<b>(5) Whole effluent toxicity testing – final wastewater effluent</b>			
As specified in Special Conditions S16 &S17. Results to be submitted with the permit application <b>by XX/XX/XXXX</b> .			
<b>(6) Receiving water temperature study</b>			
As specified in Special Condition S11.			
<b>(7) Receiving water study</b>			
As specified in Special Condition S12.			
<b>(8) Combined sewer overflow (CSO) monitoring</b>			
As specified in Special Condition S2.B.			
a	Continuous means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance. The time interval for the associated data logger must 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	$\% \text{ removal} = \frac{[(\text{Influent concentration (mg/L)} - \text{Effluent concentration (mg/L)}) / \text{Influent concentration (mg/L)}] \times 100}{1}$ Calculate the percent (%) removal of BOD <sub>5</sub> and TSS using the above equation.		
e	Calculated means figured concurrently with the respective sample, using the following formula: Concentration (in mg/L) X Flow (in MGD) X Conversion Factor (8.34) = lbs/day		
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. If taken after, dechlorinate and reseed the sample.		
i	Daily means five (5) times during each calendar week except weekends and holidays.		

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
j	3/week means three (3) times 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	Calculate a 7-DAD Max for each day by averaging the day's daily maximum temperature with the daily maximum temperatures of the three days prior and the three days after that date. WAC 173-201A-020		
s	Compliance monitoring for toxics must use EPA Method 608 - Revised.		

**S2.B. Combined sewer overflow (CSO) monitoring schedule**

The Permittee must monitor all discharges from CSO outfalls listed in Special Condition S15 using the following monitoring schedule. Permittees must use automatic flow monitoring equipment to collect the information required below. Permittee must calibrate flow monitoring equipment according to requirements in Condition S2.D.

Parameter	Units	Minimum Sampling Frequency	Sample Type
CSO discharge is defined as any untreated CSO which will exit or has exited the CSO outfall.			
Volume Discharged	Gallons	Per Event <sup>c</sup>	Measurement/Calculation <sup>a,b</sup>
Discharge Duration	Hours	Per Event <sup>c</sup>	Measurement

Parameter	Units	Minimum Sampling Frequency	Sample Type
Storm Duration	Hours	Per Event <sup>d</sup>	Measurement
Precipitation	Inches	Per Event <sup>c</sup>	Measurement/Calculation <sup>b</sup>
Ammonia <sup>e</sup>	lbs/day	Per Overflow <sup>f</sup>	Measurement/Calculation <sup>a,b</sup>
Total Phosphorus <sup>e</sup>	lbs/day	Per Overflow <sup>f</sup>	Measurement/Calculation <sup>a,b</sup>
CBOD <sub>5</sub> <sup>e</sup>	lbs/day	Per Overflow <sup>f</sup>	Measurement/Calculation <sup>a,b</sup>
<b>Footnotes for CSO Monitoring:</b>			
<sup>a</sup>	Flow measurement must be continuous, except for brief lengths of time for calibration, for power failure, or for unanticipated equipment repair or maintenance. During periods of interrupted service, a calculation may be used to estimate the discharge volume. An explanation must be provided in the monthly DMR for all disruptions in flow measurement.		
<sup>b</sup>	"Measurement/Calculation" means the total volume of the discharge or amount of precipitation event as estimated by direct measurement or indirectly by calculation (i.e. flow weirs, pressure transducers, tipping bucket). Precipitation must be measured by the nearest possible precipitation-measuring device and actively monitored during the period of interest.		
<sup>c</sup>	"Per Event" means a unique flow event as defined in the Permit Writer's Manual, p. V-17. Ecology defines the minimum inter-event period (MIET) as 24 hours. A CSO event is considered to have ended only after at least 24 hours has elapsed since the last measured occurrence of an overflow.		
<sup>d</sup>	Storm duration is the amount of total time when precipitation occurred that contributed to a discharge event. It is determined on a case-by-case basis.		
<sup>e</sup>	Pollutant loading reported as a sum from all CSO outfalls. Individual sampling results submitted with the annual CSO report. Pollutant loading reporting begins March 2021 at the end of DO TMDL compliance period. .		
<sup>f</sup>	Per Overflow means any discharge, wet or dry, during March – October.		

### S2.C. 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.D. 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)
5. Calibration as specified in this document is not required if the Permittee uses recording devices certified by the manufacturer.
6. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates.
7. Establish a calibration frequency for each device or instrument in the O&M manual that conforms to the frequency recommended by the manufacturer.
8. Calibrate flow-monitoring devices at a minimum frequency of at least one calibration per year.
9. Maintain calibration records for at least three years.

### **S2.E. 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.F. 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 (including CSO outfalls) 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. **Not** report zero for bacteria monitoring. Report as required by the laboratory method.
5. Calculate and report an arithmetic average value for each day for bacteria if multiple samples were taken in one day.
6. Calculate the geometric mean values for bacteria (unless otherwise specified in the permit) using:
  - a. The reported numeric value for all bacteria samples measured above the detection value except when it took multiple samples in one day. If the Permittee takes multiple samples in one day it must use the arithmetic average for the day in the geometric mean calculation.
  - b. The detection value for those samples measured below detection.
7. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit and as allowed in Appendix A.
8. Calculate average values and calculated total values (unless otherwise specified in the permit) using:
  - a. The reported numeric value for all parameters measured between the agency-required detection value and the agency-required quantitation value.
  - b. One-half the detection value (for values reported below detection) if the lab detected the parameter in another sample from the same monitoring point for the reporting period.
  - c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for the reporting period.
9. Report single-sample grouped parameters (for example: priority pollutants, 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). Include this information when priority pollutant scans accompany the discharge permit application and are not submitted through WQWebDMR.

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 permit renewal application monitoring data as a report with the permit renewal application by **XX/XX/XXXX**.

### **S3.B. Permit Submittals and Schedules**

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

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

Water Quality Permit Coordinator  
Department of Ecology  
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 Spokane Regional Health District (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        509-324-1500  
District

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 by email or through a physical letter to the permit manager 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**

Table 4-2 in *The City of Spokane's Facility Plan Amendment No. 3* lists design criteria for the City's Riverside Park Water Reclamation Facility. Ecology used the 2030 design flows for this proposed permit.

- March 1st through October 31<sup>st</sup> defines the **critical season**.
- November 1<sup>st</sup> through the end of February defines the **non – critical season**.

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

**Critical Season: March through October**

Maximum Month Design Flow (MMDF)	68.1 MGD
Seasonal Average Design Flow	40.4 MGD
Peak Day Design Flow	94.6 MGD

**Non – Critical Season: November through February**

Maximum Month Design Flow (MMDF)	56.4 MGD
Seasonal Average Design Flow	43.2 MGD
Peak Day Design Flow	94.2 MGD

**Year Round Design Loading**

BOD <sub>5</sub> Influent Loading for Maximum Month	69,164 lbs/day
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TSS Influent Loading for Maximum Month	71,067 lbs/day
Ammonia Influent Loading for Maximum Month	6,764 lbs/day
TP Influent Loading for Maximum Month	1,544 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.

**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.

**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 April 1, 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.
  - e. Ammonia loading.
  - f. Total Phosphorus loading.
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. See Section S15 for CSO operation and maintenance requirements.

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

This permitted facility must be operated by an operator certified by the state of Washington for at least a Class IV plant. This operator must be in responsible charge of the day-to-day operation of the wastewater treatment plant. An operator certified for at least a Class III plant must be in charge during all regularly scheduled shifts. The Permittee must notify Ecology when the operator in charge at the facility changes. It must provide the new operator's name and certification level and provide the name of the operator leaving the facility.

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

The Permittee must:

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

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

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

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

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

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

#### **S5.D. Electrical power failure**

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

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

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

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

#### **S5.F. Bypass procedures**

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.

Once the RPWRF completes the Next Level of Treatment Upgrade, normal operation includes treatment of up to 50 MGD through the membrane filtration process and blending with secondary effluent prior to disinfection/dechlorination and discharge. Ecology agrees that there is a net environmental benefit to operating the facility in this manner and does not consider this normal operation to fall under any bypass conditions. Effluent limits still apply to this combined discharge.

#### **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 to Ecology **by April 1 of each year.**
2. Submit to Ecology for review and approval substantial changes or updates to the O&M Manual whenever it incorporates them into the manual.
3. Keep the approved O&M Manual at the permitted facility.
4. Follow the instructions and procedures of this manual.
5. Submit all reviews, changes, and updates to Ecology electronically through the WebPortal.

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

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

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

## **S6. Pretreatment**

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

The Permittee must implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the Permittee's approved pretreatment program submittal entitled "Industrial Pretreatment Program" and dated September 30, 1987; any approved revisions thereto; and the General Pretreatment Regulations (40 CFR Part 403). The Ordinance section containing the local limits was last updated March 10, 2016.

On October 20, 2004 the City of Spokane, Spokane County and the City of Spokane Valley met at the Department of Ecology – Eastern Regional Office to discuss the pretreatment program. All parties agreed that the City of Spokane has the authority to administer its delegated Pretreatment Program to their present and future sewer customers located within their designated sewer services areas in City of Spokane Valley, in Spokane County, and in the City of Spokane. For the purpose of this permit and pretreatment program delegation, this applies to the present and future sewer customers who contribute wastewater into the City of Spokane collection system and are located either within or outside of the corporate limits of the City of Spokane.

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

1. Enforce categorical pretreatment standards under Section 307(b) and (c) of the Federal Clean Water Act (hereinafter, the Act), prohibited discharge standards as set forth in 40 CFR 403.5, local limits specified in Section 13.03A.0204 of Chapter 13.03A of the Spokane Municipal Code or state standards, whichever are most stringent or apply at the time of issuance or modification of a local industrial waste discharge permit.

Locally-derived limits are defined as pretreatment standards under Section 307(d) of the Act and are not limited to categorical industrial facilities.

2. Issue industrial waste discharge permits to all significant industrial users [SIUs, as defined in 40 CFR 403.3(v)(i)(ii)] contributing to the treatment system, including those from other jurisdictions. Industrial waste discharge permits must contain, as a minimum, all the requirements of 40 CFR 403.8 (f)(1)(iii). The Permittee must coordinate the permitting process with Ecology regarding any industrial facility that may possess a State Waste Discharge Permit issued by Ecology. Once issued, an industrial waste discharge permit takes precedence over a state-issued waste discharge permit.
3. Maintain and update, as necessary, records identifying the nature, character, and volume of pollutants contributed by industrial users to the POTW. The Permittee must maintain records for at least a three-year period.
4. Perform inspections, surveillance, and monitoring activities on industrial users to determine or confirm compliance with pretreatment standards and requirements. The Permittee must conduct a thorough inspection of SIUs annually.

The Permittee must conduct regular local monitoring of SIU wastewaters commensurate with the character and volume of the wastewater but not less than once per year. The Permittee must collect and analyze samples in accordance with 40 CFR Part 403.12(b)(5)(ii)-(v) and 40 CFR Part 136.

5. Enforce and obtain remedies for noncompliance by any industrial users with applicable pretreatment standards and requirements. Once it identifies violations, the Permittee must take timely and appropriate enforcement action to address the noncompliance. The Permittee's action must follow its enforcement response procedures and any amendments, thereof.
6. Publish, at least annually in the largest daily newspaper in the Permittee's service area, a list of all non-domestic users which, at any time in the previous 12 months, were in significant noncompliance as defined in 40 CFR 403.8(f)(2)(vii).

If the Permittee elects to conduct sampling of an SIU's discharge in lieu of requiring user self-monitoring, it must satisfy all requirements of 40 CFR Part 403.12. This includes monitoring and record keeping requirements of Sections 403.12(g) and (o). For SIUs subject to categorical standards (CIUs), the Permittee may either complete baseline and initial compliance reports for the

CIU (when required by 403.12(b) and (d)) or require these of the CIU. The Permittee must ensure that it provides SIUs the results of sampling in a timely manner, inform SIUs of their right to sample, their obligations to report any sampling they do, to respond to non-compliance, and to submit other notifications. These include a slug load report (403.12(f)), notice of changed discharge (403.12(j)), and hazardous waste notifications (403.12(p)).

If sampling for the SIU, the Permittee must not sample less than once in every six-month period unless the Permittee's approved program includes procedures for reduction of monitoring for Middle-Tier or Non-Significant Categorical Users per 403.12(e)(2) and (3) and those procedures have been followed.

7. Develop and maintain a data management system designed to track the status of the Permittee's industrial user inventory, industrial user discharge characteristics, and compliance status.
8. Maintain adequate staff, funds, and equipment to implement its pretreatment program.
9. Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by commercial or industrial users within these jurisdictions. These contracts or agreements must identify the agency responsible to perform the various implementation and enforcement activities in the contributing jurisdiction. In addition, the Permittee must develop a Memorandum of Understanding (or Inter-local Agreement) that outlines the specific roles, responsibilities, and pretreatment activities of each jurisdiction.
10. The Permittee must review, change if necessary and submit to Ecology for approval, **an updated Accidental Spill Prevention Program by April 1, 2017**. The program must include a schedule for implementation. The Ecology-approved program becomes an enforceable part of these permit conditions.
11. The Permittee must evaluate, at least once every two years, whether each Significant Industrial User needs a plan to control slug discharges. For purposes of this section, a slug discharge is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or non-customary batch discharge. The Permittee must make the results of this evaluation available to Ecology upon request. If the Permittee decides that a slug control plan is needed, the plan must contain, at a minimum, the following elements:
  - a. Description of discharge practices, including non-routine batch discharges.
  - b. Description of stored chemicals.
  - c. Procedures for immediately notifying the Permittee of slug discharges, including any discharge that would violate a prohibition under 40 CFR 403.5(b), with procedures for follow-up written notification within five days.

- d. If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment necessary for emergency response.

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

## 12. Pretreatment Report

The Permittee must provide to Ecology an annual report that briefly describes its program activities during the previous calendar year.

The Permittee must submit the first **annual report** to Ecology **by April 1, 2017**. The report must include the following information:

- a. An updated non-domestic inventory.
- b. Results of wastewater sampling at the treatment plant as specified in S6B. The Permittee must calculate removal rates for each pollutant and evaluate the adequacy of the existing local limits in Section 13.03.0416 of Ordinance 13.03 in prevention of treatment plant interference, pass through of pollutants that could affect receiving water quality, and sludge contamination.
- c. Status of program implementation, including:
  - Any substantial modifications to the pretreatment program as originally approved by Ecology, including staffing and funding levels.
  - Any interference, upset, or permit violations experienced at the POTW that are directly attributable to wastes from industrial users.
  - Listing of industrial users inspected and/or monitored, and a summary of the results.
  - Listing of industrial users scheduled for inspection and/or monitoring for the next year, and expected frequencies.
  - Listing of industrial users notified of promulgated pretreatment standards and/or local standards as required in 40 CFR 403.8(f)(2)(iii). The list must indicate which industrial users are on compliance schedules and the final date of compliance for each.
  - Listing of industrial users issued industrial waste discharge permits.
  - Planned changes in the approved local pretreatment program. (See Subsection A.7. below)

d. Status of compliance activities, including:

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

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

**S6.B. Monitoring requirements**

The Permittee must:

1. Monitor its influent, effluent, and sludge for the priority pollutants identified in Tables II and III of Appendix D of 40 CFR Part 122 as amended, any compounds identified because of Special Condition S6.B.4, and any other pollutants expected from non-domestic sources using U.S. EPA-approved procedures for collection, preservation, storage, and analysis.
2. Test influent, effluent, and sludge samples for the priority pollutant metals (Table III, 40 CFR 122, Appendix D) on a quarterly basis throughout the term of this permit.
3. Test influent, effluent, and sludge samples for the organic priority pollutants (Table II, 40 CFR 122, Appendix D) on an annual basis. The Permittee may use the data collected for application purposes using Appendix A test methods to meet this requirement.
4. Sample POTW influent and effluent on a day when industrial discharges are occurring at normal-to-maximum levels.
5. Obtain 24-hour composite samples for the analysis of acid and base/neutral extractable compounds and metals.
6. Collect grab samples at equal intervals for a total of four grab samples per day for the analysis of volatile organic compounds. The laboratory may run a single analysis for volatile pollutants (Method 624) for each monitoring day by compositing equal volumes of each grab sample directly in the GC purge and trap apparatus in the laboratory, with no less than 1 ml of each grab included in the composite.

7. Ensure that all reported test data for metals represents the total amount of the constituents present in all phases, whether solid, suspended, or dissolved elemental or combined, including all oxidation states unless otherwise indicated.
8. Handle, prepare, and analyze all wastewater samples taken for GC/MS analysis in accordance with the U.S. EPA Methods 624 and 625 (October 26, 1984).
9. Collect a sludge sample concurrently with a wastewater sample as a single grab of residual sludge. Sludge organic priority pollutant sampling and analysis must conform to U.S. EPA Methods 624 and 625 unless the Permittee requests an alternate method and Ecology has approved. Sludge metals priority pollutant sampling and analysis must conform to U.S. EPA SW 846 6000/7000 Series Methods unless the Permittee requests an alternate method and Ecology has approved.
10. Collect grab samples for cyanide, phenols, and oils. Measure hexane soluble oils (or equivalent) only in the influent and effluent.
11. Make a reasonable attempt to identify all other substances and quantify all pollutants shown to be present by gas chromatograph/mass spectrometer (GC/MS) analysis per 40 CFR 136, Appendix A, Methods 624 and 625, in addition to quantifying pH, oil and grease, and all priority pollutants.
12. The Permittee should attempt to make determinations of pollutants for each fraction, which produces identifiable spectra on total ion plots (reconstructed gas chromatograms). The Permittee should attempt to make determinations from all peaks with responses 5% or greater than the nearest internal standard. The 5% value is based on internal standard concentrations of 30 µg/l, and must be adjusted downward if higher internal standard concentrations are used or adjusted upward if lower internal standard concentrations are used.  
  
The Permittee may express results for non-substituted aliphatic compounds as total hydrocarbon content.
13. Use a laboratory whose computer data processing programs are capable of comparing sample mass spectra to a computerized library of mass spectra, with visual confirmation by an experienced analyst.
14. Conduct additional sampling and appropriate testing to determine concentration and variability, and to evaluate trends for all detected substances determined to be pollutants.

#### **S6.C. Reporting of monitoring results**

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

#### **S6.D. Local limit development**

As sufficient data become available, the Permittee, in consultation with Ecology, must reevaluate its local limits in order to prevent pass through or interference.

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

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

## **S7. Solid wastes**

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

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

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

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

## **S8. Application for permit renewal or modification for facility changes**

The Permittee must submit an application for renewal of this permit **by XX/XX/XXXX.**

Applications are available online at [http://www.ecy.wa.gov/programs/wq/permits/forms.html#state\\_forms](http://www.ecy.wa.gov/programs/wq/permits/forms.html#state_forms). Submit the application electronically through the Water Quality Permitting Portal under 'Permit Submittal'.

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.

An application for renewal must be received by Ecology at least 180 days prior to permit expiration (WAC 173-220-180). If an application for renewal is received past the permits expiration date, the permit will be formally cancelled and the Permittee will be required to submit an application for a new NPDES permit.

## 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.

	Tasks	Date Due
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 Condition S13 & S14.	XXXX 1, 2026

## S10. Spill control plan

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

The Permittee must:

1. Review the existing plan at least annually and update the spill plan as needed.
2. Send changes to the plan to Ecology.
3. Follow the plan and any supplements throughout the term of the permit.
4. Submit reviews, updates, and changes to Ecology through the WQWebPortal.

### S10.B. Spill control plan components

The spill control plan does not include CSO facilities and 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. Receiving water study of temperature

The Permittee must collect information on the effluent and receiving water to determine if the effluent has a reasonable potential to cause a violation of the water quality standards. If reasonable potential exists, Ecology will use this information to calculate effluent limits.

The Permittee must:

1. Submit a **Sampling Quality Assurance Project Plan** for Ecology review and approval by **December 1, 2016**.
2. Conduct all sampling and analysis in accordance with the guidelines given in *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*, Ecology Publication 04-03-030 (<http://www.ecy.wa.gov/pubs/0403030.pdf>)

A model Quality Assurance Plan specific for temperature is available at <http://www.ecy.wa.gov/programs/wq/permits/guidance.html>.

3. Measure temperature in the ambient water upstream of the outfall during the months of March through October of each year, beginning March 1, 2017.
4. Use micro-recording temperature devices known as thermistors to measure temperature. Ecology's Quality Assurance Project Plan Development Tool (*Standard Operating Procedures for Continuous Temperature Monitoring of Fresh Water Rivers and Streams*) contains protocols for continuous temperature sampling. This document is available online at [http://www.ecy.wa.gov/programs/eap/qa/docs/ECY\\_EAP\\_SOP\\_Cont\\_Temp\\_Mon\\_Ambient\\_v1\\_OEAP080.pdf](http://www.ecy.wa.gov/programs/eap/qa/docs/ECY_EAP_SOP_Cont_Temp_Mon_Ambient_v1_OEAP080.pdf).

Calibrate the devices as specified in this document unless using recording devices certified by the manufacturer. Ecology does not require manufacture-specific equipment as given in this document; however, if the Permittee wishes to use measuring devices from another company, it must demonstrate the accuracy is equivalent.

5. Set the recording devices to record at one-half-hour intervals.

6. Report temperature monitoring data as: daily maximum, seven-day running average of the daily maximums, and the monthly maximum of the seven-day running average. The model Quality Assurance Plan shows an example of these calculations.
7. Use the temperature device manufacturer's software to generate (export) an Excel text file of the temperature data for each March-October period. Submit this file and placement logs for the receiving water monitoring to Ecology via the web portal by December 31 of the monitoring year. The placement logs should include the following information for both thermistor deployment and retrieval: date, time, temperature device manufacturer ID, location, depth, whether it measured air or water temperature, and any other details that may explain data anomalies. An example of a placement log is shown in Attachment D-2 of the document referenced in item 4 above. Temperature monitoring required in Section S2 should be submitted with the monthly data through WQWebDMR.

## S12. Receiving water study

The Permittee must collect receiving water information necessary to determine if the effluent has a reasonable potential to cause a violation of the water quality standards. If reasonable potential exists, Ecology will use the study information to calculate effluent limits.

The Permittee must:

1. Submit a sampling and quality assurance plan for Ecology review and approval **by December 1, 2017**. 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>.
2. Conduct all sampling and analysis in accordance with the approved quality assurance project plan.
  - a. Locate the receiving water sampling locations outside the zone of influence of the effluent upstream of the outfall.
  - b. Use sampling station accuracy requirements of  $\pm 20$  meters.
  - c. Time the sampling as close as possible to the low flow/ critical period.
  - d. Follow the clean sampling techniques (Method 1669: *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels*, EPA Publication No. 821-R-95-034, April 1995).
  - e. Collect at least ten receiving water samples and analyze the samples for total suspended solids, hardness, temperature, pH, mercury, and arsenic, and for both the total and dissolved fractions for the following metals: zinc, copper, lead, silver, cadmium, nickel, and chromium.
  - f. Conduct all chemical analysis using the methods and the detection levels identified in Appendix A.

3. Submit sediment, chemical, and biological data to Ecology's Environmental Information Management System (EIM). Data must be submitted to EIM according to the instructions on the EIM website.

The data submittal portion of the EIM website (<http://www.ecy.wa.gov/eim/submitdata.htm>) provides information and help on formats and requirements for submitting tabular data. Specific questions about data submittal may be directed to the EIM Data Coordinator.

4. Submit the final report, summarizing the results of the study to Ecology **by December 31, 2018**. The final report must document when the data was successfully loaded into EIM.

Any subsequent sampling and analysis must also meet these requirements. The Permittee may conduct a cooperative receiving water study with other NPDES Permittees discharging in the same vicinity.

### **S13. Toxics Reduction Strategy**

Best management practices (BMPs) must be implemented throughout the City of Spokane 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 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 sewer shed, the following must be implemented:

1. The continuation of source identification and removal actions for PCBs remaining within the Permittee's municipal wastewater sewer system.
2. A technical memo addressing the design influent loading value for PCBs to the NLT treatment system and subsequent loading evaluations when the influent exceeds the design loading criteria.
3. Year round operation of the NLT upgrade following initiation of operation.
4. 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 City of Spokane 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 XX/XX/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 XX/XX/XXXX**.

## **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 City 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 City of Spokane must also maintain their active roll 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 City of Spokane to work with the Task Force in accomplishing the following:

1. Complete the Comprehensive Plan by December 2016, including targets and milestones for achieving water quality standards.
2. 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.
3. Measure Progress through a monitoring program, annual reports, and adaptive measures.

The Permittee must share data collected through the City'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.

## S15. Combined sewer overflows

### S15.A. Authorized combined sewer overflow (CSO) discharge locations

Beginning on the effective date of this permit, the Permittee may discharge domestic wastewater from the following list of combined sewer overflow (CSOs) outfalls which represent occasional point sources of pollutants as a result of overloading of the combined sewer system during precipitation events. The permit prohibits discharges not caused by precipitation. This permit does not authorize a discharge from a CSO that causes adverse impacts that threaten characteristic uses of the receiving water as identified in the water quality standards, chapter 173-201A WAC. The City must continue to measure fecal coliform in the Spokane River downstream of any CSO outfall discharging during dry weather.

All CSO discharges enter the Spokane River, except for CSO outfalls 19 and 20, which discharge into Latah Creek, a tributary of the Spokane River.

Outfall Number	CSO Outfall Location	Overflow Structure & Regulator Location Description	Latitude	Longitude
002	0.5 miles downstream of WWTP	A.L White @ Hartley (extended)	47.696658	-117.483769
006	0.25 miles upstream of WWTP	Kiernan @ NW Blvd	47.690864	-117.467110
007	0.4 miles upstream of WWTP	Columbia Circle @ Downriver Drive	47.688741	-117.467956
010	At T.J. Meenach Bridge	Cochran @ Buckeye	47.680458	-117.456295
012	0.55 miles upstream of T.J. Meenach Bridge	Nora @ Pettet Dr	47.674954	-117.447294
014	2.0 miles upstream of T.J. Meenach Bridge	Sherwood @ Summit	47.665281	-117.459233
015	2.5 miles upstream of T.J. Meenach Bridge	Ohio @ Nettleton	47.659907	-117.456109
016	1.45 miles downstream of Monroe St. Dam	"A" @ Linton – Geiger	47.656243	-117.454205
019	At High Bridge (East Side) (Latah Creek)	At High Bridge (East Side)	47.649290	-117.446399
020	2.65 miles upstream of Avista Bridge (Latah Creek)	2.65 miles upstream of Avista Bridge	47.649290	-117.426944

Outfall Number	CSO Outfall Location	Overflow Structure & Regulator Location Description	Latitude	Longitude
		Regulator located at 43 <sup>rd</sup> and Garfield Street		
022	0.7 miles downstream of Monroe St. Dam	Main @ Oak	47.659203	-117.439752
023	0.3 miles downstream of Monroe St. Dam	Cedar @ Ide	47.660701	-117.432931
024	0.3 miles downstream of Monroe St. Dam	Cedar Upstream of Maple Street Bridge	47.660047	-117.433043
025	At Monroe St. Bridge	Cedar Downstream of Monroe Street Bridge	47.660360	-117.433154
026	At Monroe St. Bridge	Lincoln @ Spokane Falls Blvd	47.660338	-117.355079
033	0.15 miles upstream of J. Keefe Bridge	Fifth @ Arthur Third @ Perry Third @ Arthur First @ Arthur	47.660473	-117.394346
034	At Trent Bridge	Crestline @ Riverside	47.661348	-117.393200
038	0.15 miles upstream of Mission	Magnolia @ S. Riverton	47.674833	-117.384265
041	0.5 miles upstream of Greene	Rebecca @ Upriver Drive	47.676574	-117.355098
042	1.1 miles upstream of Greene St.	Surro Drive	47.676827	-117.340275

**S15.B. Nine minimum controls**

In accordance with chapter 173-245 WAC and US EPA CSO control policy (59 FR 18688), the Permittee must implement and document the following nine minimum controls (NMC) for CSOs. The Permittee must document compliance with the NMC in the annual CSO report as required in Special Condition S15.C.

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

1. Implement proper operation and maintenance programs for the sewer system and all CSO outfalls to reduce the magnitude, frequency, and duration of CSOs.

The program must consider regular sewer inspections; sewer, catch basin, and regulator cleaning; equipment and sewer collection system repair or replacement, where necessary; and disconnection of illegal connections.

2. Implement procedures that will maximize use of the collection system for wastewater storage that can be accommodated by the storage capacity of the collection system in order to reduce the magnitude, frequency, and duration of CSOs.
3. Review and modify, as appropriate, its existing pretreatment program to minimize CSO impacts from the discharges from non-domestic users.
4. Operate the Permittee's wastewater treatment plant at maximum treatable flow during all wet weather flow conditions to reduce the magnitude, frequency, and duration of CSOs. The Permittee must deliver all flows to the treatment plant within the constraints of the treatment capacity of the POTW.
5. Not discharge (prohibited) overflows from CSO outfalls except as a result of precipitation events. The Permittee must report each dry weather overflow to the permitting authority immediately per Special Condition S3.E. When it detects a dry weather overflow, the Permittee must begin corrective action immediately and inspect the dry weather overflow each subsequent day until it has eliminated the overflow.
6. Implement measures to control solid and floatable materials in CSOs.
7. Implement a pollution prevention program focused on reducing the impact of CSOs on receiving waters.
8. Implement a public notification process to inform the citizens of when and where CSOs occur. The process must include (a) mechanism to alert persons of the occurrence of CSOs and (b) a system to determine the nature and duration of conditions that are potentially harmful for users of receiving waters due to CSOs.
9. Monitor CSO outfalls to characterize CSO impacts and the efficacy of CSO controls. This must include collection of data that it will use to document the existing baseline conditions, evaluate the efficacy of the technology-based controls, and determine the baseline conditions upon which it will base the long-term control plan. This data must include:
  - a. Characteristics of the combined sewer system, including the population served by the combined portion of the system and locations of all CSO outfalls in the CSS.
  - b. Total number of CSO events, and the frequency and duration of CSOs for a representative number of events.
  - c. Locations and designated uses of receiving water bodies.
  - d. Up and downstream water quality data for receiving water bodies.

- e. Water quality impacts directly related to CSO (e.g., beach closing, floatables, wash-up episodes, fish kills).

#### **S15.C. Combined sewer overflow annual report**

The Permittee must submit a **CSO Annual Report** to Ecology for review and approval **by May 1st of each year**. The CSO Annual Report must cover the previous calendar year. The report must comply with the requirements of WAC 173-245-090(1) and must include documentation of compliance with the Nine Minimum Controls for CSOs described in Special Condition S15B. The CSO Annual report must include the following information:

1. A summary of the number and volume of untreated discharge events per outfall for that year.
2. A summary of the 20-year moving average number of untreated discharge events per outfall, calculated once annually including past years and the current year. When the period of data collection is less than 20 years, the averaging period will include all past years for which flow monitoring was collected. The Permittee must report the average number of discharge events per controlled outfall per year based on a 20-year moving average to be reported in the annual report. Ecology will assess compliance with this performance standard on an annual basis.
3. An event-based reporting form (provided by Ecology) for all CSO discharges for the reporting period, summarizing all data collected according to the monitoring schedule in Special Condition S2.B.
4. An explanation of the previous year's CSO reduction accomplishments.
5. A list of CSO reduction projects planned for the next year.
6. CSO discharge pollutant load characterization and monitoring plan for ammonia, total phosphorus and CBOD<sub>5</sub>.

#### **S15.D. Combined sewer overflow reduction plan amendment**

The Permittee must submit an amendment of its **CSO Reduction Plan** to Ecology for review and approval **by XX/XX/XXXX** in the event that the City changes the reduction plan as outlined in the 2013/2014 CSO Reduction Plan Amendment. Any revision to this document must comply with the requirements of WAC 173-245-090(2) and contain the following:

1. Information describing which of the permitted CSO outfalls can be categorized as meeting the Performance Standard for Controlled CSOs, defined as no more than an average of one untreated discharge per outfall per year. The Permittee may base this assessment on long-term discharge data (up to years, past and present data), modeling, or other reasonable methods as approved by Ecology.
2. For each CSO Outfall that does not meet the Performance Standard for Controlled CSOs defined above:
  - a. Identify CSO control alternatives to achieve an average of no more than one untreated CSO event per year per outfall.

- b. Provide an evaluation of each of the alternatives and a selection of a preferred alternative that will ensure compliance with Washington State regulations (WAC 173-245), and
- c. The expected compliance date.

**S15.E. Engineering Reports and Plans and Specifications for CSO Reduction Projects**

In December of 2014, Ecology approved a Memorandum of Agreement (MOA) between the Washington State Department of Ecology and the City of Spokane Division of Utilities. This MOA allows the City of Spokane to internally complete and approve design and bidding documents for their CSO reduction projects based on the requirements of WAC 173-240-060.

Once the City completes an internal review of final design and bidding documents, a courtesy copy should be sent to the Permit Manager. A brief technical memo dictating parameters used in the design process shall also be required.

A letter certifying the documents meet requirements of WAC 173-240-060 should accompany these submissions. The letter must be signed and sealed by a professional engineer employed by the City. This process applies to all CSO reduction construction projects.

**S15.F. Compliance schedule**

In order to achieve the greatest reasonable reduction of combined sewer overflows at the earliest possible date, the Permittee must complete the elements of the approved 2014 CSO Reduction Plan Amendment identified in the table below by the specified dates.

City of Spokane CSO Reduction		
1.	Complete and submit for review and approval a CSO plan amendment	As needed
2.	Complete draft engineering report for review and comment	Varies per Basin as outlined in the 2014 CSO Reduction Plan Amendment
3.	Complete and submit for approval a final engineering report	
4.	Complete draft plans and specifications for review and comment	
5.	Complete final plans and specifications	
6.	Begin construction	
7.	Finish construction. Ecology will work with the City of Spokane in the event of unforeseen construction delays; however, the City must have complete design documents and be able to provide a justifiable reason delaying substantial completion.	December 31, 2017

**S15.G. Requirements for controlled combined sewer overflows**

**a. CSOs identified as controlled**

Based on monitoring data provided in the FY2014 CSO Annual Report, the City of Spokane’s CSO outfalls listed below that discharge to the Spokane River meet the requirement of “greatest reasonable reduction” as defined in chapter WAC 173-245-020(22). Frequency of overflow events at these CSO outfalls, as a result of precipitation events, must continue to meet the performance standard.

Discharge No.	Outfall Location	Latitude	Longitude
002	0.5 miles downstream of WWTP	47.696658	-117.483769
010	At Downriver Bridge	47.680458	-117.456295
016	1.45 miles downstream of Monroe St. Dam	47.656243	-117.454205
019	At High Bridge (East Side)	47.649290	-117.446399
038	0.15 miles upstream of Mission	47.674833	-117.384265
042	1.1 miles upstream of Greene St.	47.676827	-117.340275

**b. Performance standards for controlled CSO outfalls**

The performance standard for each controlled CSO outfall is not more than one discharge event per outfall per year on average, due to precipitation. Ecology evaluates compliance with the performance standard annually based on a 20 year moving average. The Permittee must report the running 20-year average number of overflow events per year during this permit term from these CSO outfalls in the CSO Annual Report required in Section S15.C.

**c. CSO post construction monitoring**

The Permittee must implement a post construction compliance monitoring program to verify the effectiveness of CSO controls and to demonstrate compliance with water quality standards and protection of designated uses.

**d. CSO post construction monitoring plan**

The Permittee must submit to Ecology for review and approval a CSO Post Construction Monitoring Plan **no later than November 1, 2016.**

The plan must describe the monitoring protocols to be followed, including effluent monitoring, and as appropriate, other monitoring protocols such as ambient monitoring, biological assessments, whole effluent toxicity testing, and sediment sampling.

The plan should identify instances where uncontrolled outfalls in the system may influence or adversely interfere with the water quality assessment of controlled outfalls.

**e. CSO post construction monitoring data report**

Following Ecology approval of the CSO Post Construction Monitoring Plan, the Permittee must implement the plan. The Permittee must submit to Ecology a data report containing the results of the monitoring and analysis **no later than May 1, 2017**. The data report must conform to the approved CSO Post Construction Monitoring Plan.

**S15.H. Wet Weather Operation of Wastewater Treatment Facility**

CSO-related bypass of the secondary treatment portion of the Riverside Park Water Reclamation Facility is authorized when the instantaneous flow rate to the treatment plant exceeds the storage capacity of the reserve storm clarifiers as a result of precipitation events. Bypasses that occur when the instantaneous flow is less than the clarifier storage capacity are not authorized under this condition and are subject to the bypass provisions as stated in Section S5.F of this proposed permit. In the event of a CSO-related bypass authorized under this condition, the Permittee must minimize the discharge of pollutants to the environment. At a minimum, CSO-related bypass flows must receive solids and floatables removal, primary clarification and disinfection. The final discharge must at all times meet the effluent limits of this permit as listed in S1.

The Permittee must maintain records of all CSO-related bypasses at the treatment plant. These records must document the date, duration, and volume of each bypass event, and the magnitude of the precipitation event. The records must also indicate the effluent flow rate at the time with bypassing is initiated. All occurrences of bypassing must be reported on a monthly basis and also included in the annual report as described in this section. The monthly report must be submitted in narrative form with the DMR and include the above information.

**S16. Acute toxicity**

**S16.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
Rainbow trout 96-hour static-renewal test	<i>Oncorhynchus mykiss</i>	EPA-821-R-02-012

4. Submit the results to Ecology by XX/XX/XXXX (with the permit renewal application).

**S16.B. Sampling and reporting requirements**

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

7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the acute critical effluent concentration (ACEC).
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.

## S17. Chronic toxicity

### S17.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 (March – October) ACEC equals 83.3% effluent; non-critical ACEC equals 76.9% effluent. The series of dilutions should also contain the CCEC of 32.3% effluent (March – October) or 17.5% (November – February).
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 XX/XX/XXXX** (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
Alga	<i>Pseudokirchneriella subcapitata</i> (formerly <i>Selenastrum capricornutum</i> )	EPA-821-R-02-013

### **S17.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*.
5. 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.
6. 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.
7. 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/non-critical CCECs equals 32.3 / 17.5% effluent. The critical/non-critical ACEC equals 83.3 / 76.9% 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.

## 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 - Revised	0.05	0.2
PCB-1254 (11097-69-1)	608 - Revised	0.05	0.2
PCB-1221 (11104-28-2)	608 - Revised	0.05	0.2
PCB-1232 (11141-16-5)	608 - Revised	0.05	0.2
PCB-1248 (12672-29-6)	608 - Revised	0.05	0.2
PCB-1260 (11096-82-5)	608 - Revised	0.05	0.2
PCB-1016 (12674-11-2) <sup>9</sup>	608 - Revised	0.05	0.2
Toxaphene (8001-35-2)	608	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.