Issuance Date: XXXX XX, 2021
Effective Date: XXXX 1, 2021
Expiration Date: XXXX XX, 2026

State Waste Discharge Permit Number ST0008088

State of Washington
DEPARTMENT OF ECOLOGY
Industrial Section
PO Box 47600
Olympia, WA 98504-7600

In compliance with the provisions of the
State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington, as amended,

Northwest Alloys, Inc.
1560A Marble Valley Road
Addy, Washington 99101

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

<table>
<tr><td>Facility Location:
1560A Marble Valley Road
Addy, Washington 99101</td><td rowspan="2">Discharge Location:
115 acres in Portions of Sections 14, 23, and 24 of Township 33 N, Range 39 E (Willamette Meridian)
Center of Land Application Areas:
Latitude: 48.35584
Longitude: -117.85419</td></tr>
<tr><td>Treatment Type:
Sanitary Wastewater - Extended Aeration Package Plant
Commingled Wastewater - Land Treatment

Industry Type:
Curtailed Magnesium Smelter</td><td>SIC Code: 3339
NAICS Code: 425110</td></tr>
</table>

James DeMay, P.E.
Industrial Section Manager
Washington State Department of Ecology

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Summary of Permit Report Submittals

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

Permit Section	Submittal	Frequency	First Submittal Date
S1.A	Sanitary Wastewater Treatment Plant Notification	As necessary	
S3.A	Discharge Monitoring Report (DMR)	Monthly	XXXXXX 15, 20XX (month after permit effective date)
S3.A	Discharge Monitoring Report (DMR)	Quarterly	XXXXXX 15, 20XX (2 months after first full quarter after permit effective date)
S3.A	Discharge Monitoring Report (DMR)	Annual	January 15, 20XX (first January after permit effective date)
S3.F	Reporting Permit Violations	As necessary	
S4.A	Operations and Maintenance Manual	1/permit cycle	XXXX XX, 20XX (6 months after permit effective date)
S4.A	Operations and Maintenance Manual Update	As necessary	
S4.B	Reporting Bypasses	As necessary	
S6	Application for Permit renewal	1/permit cycle	XXXX XX, 20XX (180 days before the permit expiration date)
S7	Irrigation and Crop Management Plan	Annual	April 15, 20XX (first April after permit effective)
S8	Engineering Report	As necessary	
S9	Hydrogeologic Study Report	1/permit cycle	Within six months of completing the activities in the Hydrogeologic Study Workplan

Permit Section	Submittal	Frequency	First Submittal Date
S11	Pond 3 Workplan	1/permit cycle	With the Hydrogeologic Study Report
G1	Notice of Change in Authorization	As necessary	
G4	Permit Application for Substantive Changes to the Discharge	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	

Special Conditions

S1. Discharge Limits

S1.A. Sanitary Wastewater 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 concentration in excess of, that authorized by this permit violates the terms and conditions of this permit. If the Permittee discontinues operating the sanitary wastewater treatment plant, the Permittee must notify Ecology within 30 days after the Permittee stops operating the sanitary wastewater treatment plant. The notification must include what the Permittee plans to do with the sanitary wastewater treatment plant and where sanitary wastewater will be discharged in the future. After the Permittee notifies Ecology that the sanitary wastewater treatment plant is no longer operating, the limits in Special Condition S1.A no longer apply and the Permittee is not authorized to discharge sanitary wastewater to the commingled wastewater. The Permittee must receive approval from Ecology to restart the sanitary wastewater treatment plant.

Beginning on the effective date of this permit, the Permittee is authorized to discharge sanitary wastewater to the commingled wastewater subject to the following limits (during curtailment):

Effluent Limits During Curtailment: Sanitary Treatment Plant Effluent

Parameter	Maximum in Any One Sample
Fecal Coliform Bacteria	200/100 mL

Beginning on the effective date of this permit, the Permittee is authorized to discharge sanitary wastewater to the commingled wastewater subject to the following limits (during operations):

Effluent Limits During Operations: Sanitary Treatment Plant Effluent

Parameter	Average Monthly [a]	Average Weekly [b]
Biochemical Oxygen Demand (5-day) (BOD_5)	30 milligrams/liter (mg/L) 5 pounds/day (lbs/day) 85% removal of influent BOD_5	45 mg/L 7.5 lbs/day
Total Suspended Solids (TSS)	30 mg/L 5 lbs/day 85% removal of influent TSS	45 mg/L 7.5 lbs/day

Effluent Limits During Operations: Sanitary Treatment Plant Effluent

Parameter	Monthly Geometric Mean	7-Day Geometric Mean
Fecal Coliform Bacteria [c]	200/100 milliliter (mL)	400/100 mL

Footnotes:

a Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured.

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

c Ecology provides directions to calculate the monthly and the 7-day geometric mean in Ecology's Information Manual for Wastewater Treatment Plant Operators, Publication Number 04-10-020 available at https://fortress.wa.gov/ecy/publications/summarypages/0410020.html.

S1.B. Sprayfield Irrigation

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 concentration in excess of, that authorized by this permit violates the terms and conditions of this permit.

Beginning on the effective date of this permit, the Permittee is authorized to apply commingled wastewater from the East Pit, the Crusher Pond, and Storm Lake 1 to the designated land treatment sites via spray irrigation not to exceed the agronomic rates for nitrogen and water, and at rates for any other wastewater constituents to protect background groundwater quality. The Permittee is authorized to use Storm Lake 3 for emergency storage of commingled wastewater. Commingled wastewater includes stormwater, groundwater from an onsite well, treated sanitary wastewater, collected water from a former slag pond, groundwater from beneath Pond 3, and potable water.

The Permittee may only apply wastewater seasonally from May 1st to September 30th. The Permittee must request in writing any changes to the application season and must not discharge outside of the permitted seasonal range until Ecology approves the request.

The Permittee is authorized to apply commingled wastewater for final treatment on the following designated land treatment sites:

115 acres in portions of Section 14 of Township 33 N, Range 39 E (Willamette Meridian) owned by the Permittee located adjacent to the curtailed magnesium facility at 1560A Marble Valley Road in Addy, Washington. This acreage includes 66.0 acres in Field 1 and 49.0 acres in Field 2.

The Permittee is authorized to apply commingled wastewater for final treatment on the following designated land treatment sites only after Ecology's approval as described in Special Condition S8:

64.4 acres in portions of Sections 23 and 24 of Township 33 N, Range 39 E (Willamette Meridian) owned by the Permittee located adjacent to the curtailed magnesium facility at 1560A Marble Valley Road in Addy, Washington. This acreage includes 24.1 acres in Field 10 and 40.3 acres in Field 11.

Total nitrogen and water applied to the land treatment sites must not exceed the crop requirements as determined by the Permittee's Irrigation and Crop Management Plan, Special Condition S7.

The Permittee must operate the sprayfields in such a manner as to:

1. Protect the existing and future beneficial uses of both groundwater and surface water.
2. Not cause a violation of the groundwater standards (chapter 173-200 WAC) or the surface water quality standards (chapter 173-201A WAC).

Beginning on the effective date of this permit, the Permittee is authorized to discharge commingled wastewater for final treatment on the designated land treatment sites subject to the following limits:

Parameter	Maximum Daily Limit
Total Dissolved Solids (Commingled Wastewater Interim Limit) [a, b]	808 milligrams per liter (mg/L)
Chloride (Commingled Wastewater Interim Limit) [a, b]	171 mg/L
Sulfate-Sulfur (Commingled Wastewater Interim Limit) [a, b]	180 mg/L
Nitrate/Nitrite as N (Commingled Wastewater Interim Limit) [a, b]	14.6 mg/L

Footnotes:

a The interim limits are effective on XXXX 1, 2020 (effective date of permit) until Ecology determines final limits or if new information becomes available and interim limits are no longer needed. Removal of interim limits would occur through a permit modification or permit renewal.

b If necessary, Ecology will determine the final groundwater limits after the Permittee completes the hydrogeologic study (see Special Condition S9). The final groundwater limits will become effective after Ecology modifies the permit or upon renewal of the permit.

S2. Monitoring Requirements

S2.A. Sanitary Wastewater Monitoring

The Permittee must monitor the effluent from the sanitary treatment plant prior to it being added to the commingled wastewater. The Permittee must monitor in accordance with the following schedules (during curtailment or during operations) and the requirements specified in Appendix A. If the Permittee discontinues operating the sanitary wastewater treatment plant, and notifies Ecology as required by Special Condition S1.A, then the monitoring requirements in Special Condition S2.A no longer apply.

(1) Sanitary Treatment Plant Effluent (During Curtailment)

Parameter	Units and Speciation	Minimum Sampling Frequency [a]	Sample Type [b]
Flow	gallons/day	Continuous	Calculated
Fecal Coliform Bacteria [c]	MPN/100 mL	Monthly	Grab

(2) Sanitary Treatment Plant Influent (During Operations) [d]

Parameter	Units and Speciation	Minimum Sampling Frequency [a]	Sample Type [b]
Biochemical Oxygen Demand (5-day) (BOD_5)	milligrams/liter (mg/L), pounds/day (lbs/day)	Weekly	24-hr Composite
Total Suspended Solids (TSS)	mg/L, lbs/day	Weekly	24-hr Composite

(3) Sanitary Treatment Plant Effluent (During Operations) [e]

Parameter	Units and Speciation	Minimum Sampling Frequency [a]	Sample Type [b]
Flow	millions gallons/day	Continuous	Metered
BOD_5 [f]	mg/L, lbs/day, % removal [g]	Weekly	24-hr Composite
TSS	mg/L, lbs/day, % removal [g]	Weekly	24-hr Composite
Fecal Coliform Bacteria [c]	MPN/100 mL	Weekly	Grab

Footnotes:

a Continuous means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance. The Permittee must estimate flow using pump run data when continuous monitoring is not possible.

Monthly means once per month.

Weekly means once per week.

b Calculated means using a level probe and weir and calculating a monthly average daily flow.

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

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

Metered means a recording meter.

c Report a numerical value for fecal coliform bacteria following the procedures in Ecology's Information Manual for Wastewater Treatment Plant Operators, Publication Number 04-10-020 available at https://fortress.wa.gov/ecy/publications/summarypages/0410020.html. Do not report a result as too numerous to count (TNTC). MPN means most probable number.

d 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.

e 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.

f The Permittee may take effluent samples for the BOD_5 analysis before or after the disinfection process. If taken after, the Permittee must dechlorinate and reseed the sample.

g Calculate the percent (%) removal using the following equation: % removal = (Average Monthly Influent mg/L - Average Monthly Effluent mg/L) / Average Monthly Influent mg/L.

S2.B. Irrigation Wastewater Monitoring

The Permittee must monitor the commingled wastewater prior to its discharge to the sprayfields. The Permittee must sample at a location that best represents the commingled wastewater applied to the sprayfields.

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

Parameter	Units and Speciation	Minimum Sampling Frequency [a]	Sample Type [b]
Flow	million gallons/day	Continuous	Metered
pH	Standard Units	Monthly	Grab
Total Kjeldahl Nitrogen	milligrams/liter as Nitrogen (mg/L as N)	Monthly	Grab
Nitrate/Nitrite (as Nitrogen)	mg/L as N	Monthly	Grab
Ammonia (as Nitrogen)	mg/L as N	Monthly	Grab

Parameter	Units and Speciation	Minimum Sampling Frequency [a]	Sample Type [b]
Electrical Conductivity	millimhos/centimeter (mhos/cm)	Monthly	Grab
Sodium	mg/L	Monthly	Grab
Calcium	mg/L	Monthly	Grab
Magnesium	mg/L	Monthly	Grab
Phosphorus	mg/L	Monthly	Grab
Potassium	mg/L	Monthly	Grab
Sulfate-Sulfur	mg/L	Monthly	Grab
Chloride	mg/L	Monthly	Grab
Alkalinity	mg/L	Monthly	Grab
Total Dissolved Solids	mg/L	Monthly	Grab
Arsenic, Total	µg/L	Monthly	Grab
Nickel, Total	µg/L	Monthly	Grab
Lead, Total	µg/L	Monthly	Grab
Biochemical Oxygen Demand (5-day)	mg/L	Monthly	Grab

Footnotes:

a Continuous means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance. The Permittee must estimate flow using pump run data when continuous monitoring is not possible.

Monthly means once per month when the Permittee is irrigating.

b Metered means a recording meter.

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

S2.C. Supplemental Potable Water

The Permittee must monitor the supplemental potable water prior to combining it with the commingled wastewater for discharge to the sprayfields. The Permittee must sample at a location that best represents the supplemental potable water.

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

Parameter	Units and Speciation	Minimum Sampling Frequency [a]	Sample Type [b]
Flow	millions gallons/day	Calculated	Calculation

Parameter	Units and Speciation	Minimum Sampling Frequency [a]	Sample Type [b]
pH	Standard Units	Annually	Grab
Total Kjeldahl Nitrogen	milligrams/liter as Nitrogen (mg/L as N)	Annually	Grab
Nitrate/Nitrite (as Nitrogen)	mg/L as N	Annually	Grab
Ammonia (as Nitrogen)	mg/L as N	Annually	Grab
Electrical Conductivity	millimhos/centimeter	Annually	Grab
Sodium	mg/L	Annually	Grab
Calcium	mg/L	Annually	Grab
Magnesium	mg/L	Annually	Grab
Phosphorus	mg/L	Annually	Grab
Potassium	mg/L	Annually	Grab
Sulfate-Sulfur	mg/L	Annually	Grab
Chloride	mg/L	Annually	Grab
Alkalinity	mg/L	Annually	Grab
Total Dissolved Solids	mg/L	Annually	Grab
Arsenic, Total	µg/L	Annually	Grab
Nickel, Total	µg/L	Annually	Grab
Lead, Total	µg/L	Annually	Grab
Biochemical Oxygen Demand (5-day)	mg/L	Annually	Grab

Footnotes:

a Calculated means using the run time and pump output to calculate flow.

Annually means once per year when the Permittee is irrigating.

b Calculation means using the pump station data.

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

S2.D. Groundwater Monitoring (Beneath Pond 3)

The Permittee must monitor the groundwater beneath Pond 3 prior to combining it with the commingled wastewater for discharge to the sprayfields. The Permittee must sample at a location that best represents the groundwater beneath Pond 3.

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

Parameter	Units and Speciation	Minimum Sampling Frequency [a]	Sample Type [b]
Nitrate/Nitrite (as Nitrogen)	milligrams/liter as Nitrogen (mg/L as N)	Quarterly	Grab
Total Dissolved Solids	mg/L	Quarterly	Grab
pH	Standard Units	Quarterly	Grab
Total Kjeldahl Nitrogen	mg/L as N	Quarterly	Grab
Ammonia (as Nitrogen)	mg/L as N	Quarterly	Grab
Electrical Conductivity	millimhos/centimeter	Quarterly	Grab
Sodium	mg/L	Quarterly	Grab
Calcium	mg/L	Quarterly	Grab
Magnesium	mg/L	Quarterly	Grab
Potassium	mg/L	Quarterly	Grab
Sulfate-Sulfur	mg/L	Quarterly	Grab
Chloride	mg/L	Quarterly	Grab
Alkalinity	mg/L as CaCO3	Quarterly	Grab
Arsenic, Total	µg/L	Quarterly	Grab
Nickel, Total	µg/L	Quarterly	Grab
Lead, Total	µg/L	Quarterly	Grab

Footnotes:

a Quarterly means once per quarter. Quarterly sampling periods are January through March, April through June, July through September, and October through December. The Permittee must begin quarterly monitoring for the quarter beginning on 1/1/XX 4/1/XX 7/1/XX 10/1/XX and submit results by 5/15/XX 8/15/XX 11/15/XX 2/15/XX.

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

S2.E. Groundwater Monitoring (Sprayfield Wells)

The Permittee must monitor the groundwater at monitoring wells MW-7A, MW-8A, MW-11A, MW-12A, MW-34, MW-35, MW-36, MW-37, and MW-38 in accordance with the following schedule and the requirements specified in Appendix A.

Parameter	Units and Speciation	Minimum Sampling Frequency [a]	Sample Type [b]
Measured Depth to Groundwater	Feet (nearest 0.01 foot)	Quarterly	Field Measurement

Parameter	Units and Speciation	Minimum Sampling Frequency [a]	Sample Type [b]
Nitrate/Nitrite (as Nitrogen)	milligrams/liter as Nitrogen (mg/L as N)	Quarterly	Grab
Total Dissolved Solids	mg/L	Quarterly	Grab
pH	Standard Units	Quarterly	Grab
Total Kjeldahl Nitrogen	mg/L as N	Quarterly	Grab
Ammonia (as Nitrogen)	mg/L as N	Quarterly	Grab
Electrical Conductivity	millimhos/centimeter	Quarterly	Grab
Sodium	mg/L	Quarterly	Grab
Calcium	mg/L	Quarterly	Grab
Magnesium	mg/L	Quarterly	Grab
Potassium	mg/L	Quarterly	Grab
Sulfate-Sulfur	mg/L	Quarterly	Grab
Chloride	mg/L	Quarterly	Grab
Alkalinity	mg/L as CaCO3	Quarterly	Grab
Arsenic, Total	µg/L	Quarterly	Grab
Nickel, Total	µg/L	Quarterly	Grab
Lead, Total	µg/L	Quarterly	Grab

Footnotes:

a Quarterly means once per quarter. Quarterly sampling periods are January through March, April through June, July through September, and October through December. The Permittee must begin quarterly monitoring for the quarter beginning on 1/1/XX 4/1/XX 7/1/XX 10/1/XX and submit results by 5/15/XX 8/15/XX 11/15/XX 2/15/XX.

b Field measurement means measured in the field.

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

S2.F. Soil Monitoring

The Permittee must monitor soil on the land treatment site as follows; the Permittee must:

1. Monitor twice per year unless otherwise specified.
2. Locate sampling sites so they represent each land treatment site or as identified in the crop management plan.
3. Locate sampling sites in the same vicinity each year if possible.
4. Test soil at each sampling site on one-foot soil increments.

5. Submit results annually with the Special Condition S7 Irrigation and Crop Management Plan.
6. Composite a minimum of four (4) core samples at the six depth increments as defined in the table below (or until auger refusal).
7. Collect samples at a time that best represents soil conditions at the beginning and the end of the crop-growing season.

The Permittee must monitor the soils in Fields 1, 2, 10, and 11 according to the following schedule:

Parameter	Units and Speciation	Minimum Sampling Frequency [a]	Sample Type [b]
Nitrate/Nitrite (as Nitrogen)	milligrams/liter as Nitrogen (mg/L as N)	2/year	Composite
Soil Moisture	Percent	2/year	Composite
pH	Standard Units	2/year	Composite
Ammonia (as Nitrogen)	mg/L as N	2/year	Composite
Electrical Conductivity	millimhos/centimeter	2/year	Composite
Sulfate-Sulfur	mg/L	2/year	Composite
Chloride	mg/L	2/year	Composite

Footnotes:

a 2/year means twice per year, once in the spring and once in the fall.

b Composite means a minimum of four (4) core samples at the following six depth increments: 0-12 inches; 12-24 inches; 24-36 inches; 36-48 inches; 48-60 inches; 60-72 inches.

S2.G. Crop Monitoring

The Permittee must:

1. Monitor the crops for the parameters listed below on each field once per harvest.
2. Comprise composite samples of at least ten (10) random samples collected from each of Fields 1 and 2. The same sampling is required for Fields 10 and 11, after Ecology approves irrigation of Fields 10 and 11 with commingled wastewater.
3. Submit results annually with the Special Condition S7 Irrigation and Crop Management Plan.

Parameter	Units, Speciation, & Measurement Basis
Crop Production (Weight)	Dry tons/acre

Parameter	Units, Speciation, & Measurement Basis
Moisture Content	Percent
Total Kjeldahl Nitrogen (TKN)	milligram/kilogram (mg/Kg) (dry weight)
Nitrate/Nitrite (as Nitrogen)	mg/Kg as Nitrogen (dry weight)
Chloride	mg/Kg (dry weight)
Potassium	mg/Kg (dry weight)
Magnesium	mg/Kg (dry weight)
Phosphorus	Percent
Sodium	mg/Kg (dry weight)
Sulfate-Sulfur	mg/Kg (dry weight)
Arsenic, Total	mg/Kg (dry weight)
Nickel, Total	mg/Kg (dry weight)
Lead, Total	mg/Kg (dry weight)

S2.H. Additional Monitoring

The Permittee must monitor according to Special Conditions S6 (Permit Renewal Application), S9 (Hydrogeologic Study), S10 (Dical Study), and S11 (Pond 3 Study).

S2.I. Sampling and Analytical Procedures

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

Groundwater sampling must conform to the latest protocols in the *Implementation Guidance for the Ground Water Quality Standards* (Ecology 2005).

Sampling and analytical methods used to meet the water and wastewater monitoring requirements specified in this permit must conform to the latest revision of the following rules and documents unless otherwise specified in this permit or approved in writing by Ecology.

- *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136
- *Standard Methods for the Examination of Water and Wastewater (APHA)*

The Permittee must conduct and report all soil analysis in accordance with the Western States Laboratory Plant, Soil and Water Analysis Manual, *Soil, Plant And Water Reference Methods for The Western Region, 4th Edition*, 2013. You can find more information at:

http://www.naptprogram.org/files/napt/publications/method-papers/western-states-methods-manual-2013.pdf.

S2.J. 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. If continuous monitoring instruments are installed after the effective date of the permit, 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. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates.
5. Establish a calibration frequency for each device or instrument in the O&M manual that conforms to the frequency recommended by the manufacturer.
6. Calibrate flow monitoring devices at a minimum frequency of at least one calibration per year.
7. Maintain calibration records for at least three years.

S2.K. 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.

Crops and soils data are process control parameters, which do not require preparation by an accredited laboratory. However, the Permittee must obtain this data from a reputable agricultural test lab that is an active participant in a nationally recognized agricultural laboratory proficiency testing program.

S2.L. Request for Reduction in Monitoring

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

The Permittee must:

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

S3. Reporting and Recording Requirements

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

S3.A. Discharge Monitoring Reports

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

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

   To find out more information and to sign up for the Water Quality Permitting Portal go to: https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance.

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).

    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 Special Condition S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must:
    a. Submit monthly DMRs by the 15th day of the following month.

b. Submit quarterly DMRs, unless otherwise specified in the permit, by the 15th day of the second month following the monitoring period. Quarterly sampling periods are January through March, April through June, July through September, and October through December. The Permittee must submit the first quarterly DMR on 5/15/XX 8/15/XX 11/15/XX 2/15/XX for the quarter beginning on 1/1/20XX 4/1/20XX 7/1/20XX 10/1/20XX.

c. Submit annual DMRs, unless otherwise specified in the permit, by January 15 for the previous calendar year. The annual sampling period is the calendar year.

S3.B. Permit Submittals and Schedules

The Permittee must use the Water Quality Permitting Portal – Permit Submittals application (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
Industrial Section
PO Box 47600
Olympia, WA 98504-7600

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.

The Permittee must retain all records pertaining to the monitoring of sludge for a minimum of five years.

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 the Department of Ecology; the Department of Health, Drinking Water Program; and the Stevens County Environmental Health (at the numbers listed below), all:

- Overflows or leaks of transmission or irrigation pipelines that discharge to a waterbody used as a source of drinking or irrigation water.
- Failures of the disinfection system.

Eastern Regional Office	509-329-3400
Department of Health, Drinking Water Program	800-521-0323 (business hours) 877-481-4901 (after business hours)
Stevens County Environmental Health	800-776-6207 (business hours) 911 (after business hours)

The Permittee must also notify the Ecology Industrial Section permit manager by telephone for any of the above situations. Outside of normal working hours, a voicemail notification to the Industrial Section permit manager or their designated backup will meet this requirement.

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. The Permittee must report:

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 Special Condition S4.B, "Bypass Procedures").
3. Any upset that causes an exceedance of an effluent limit in the permit. 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.
4. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Special Condition 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.
6. When a monitoring well exceeds an enforcement limit for the same parameter in two consecutive sampling events.
7. Any leak or failure of the wastewater transmission pipeline or irrigation pipeline distribution system.

c. Report Within Five Days

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

1. A description of the noncompliance and its cause.
2. Maps, drawings, aerial photographs, or pictures to show the location and cause(s) of the non-compliance.
3. The period of noncompliance, including exact dates and times.
4. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
5. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
6. 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. The waiver by Ecology will be by letter.

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 Special Condition S3.A. The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

S3.G. Other Reporting

a. Spills of Oil or Hazardous Materials

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

b. Failure to Submit Relevant or Correct Facts

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

S3.H. Maintaining a Copy of this Permit

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

S4. Operation and Maintenance

The Permittee must, at all times, properly operate and maintain all facilities or 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 requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

S4.A. Operations and Maintenance (O&M) Manual

a. O&M Manual Submittal and Requirements

The Permittee must:

1. Update the O&M Manual that meets the requirements of 173-240-150 WAC and submit it to Ecology for approval by XXXX XX, 20XX (6 months after permit effective date). The Permittee must submit a paper copy and an electronic copy (preferably in a portable document format (PDF)).
2. Review the O&M Manual at least annually and update as necessary.
3. Submit to Ecology for review and approval substantial changes or updates to the O&M Manual whenever it incorporates them into the manual.
4. Keep the approved O&M Manual at the permitted facility.
5. Follow the instructions and procedures of this manual.

b. O&M Manual Components

In addition to the requirements of WAC 173-240-150, 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 plant shutdown and cleanup in the event of a sanitary wastewater system upset or irrigation system failure including pipeline, hose, or irrigation system leaks.
2. Irrigation system operational controls and procedures.
3. Plant maintenance or corrective action activities which would affect the volume or character of the commingled wastewater and a plan for monitoring and treating/controlling the discharge of these materials.
4. Wastewater system maintenance procedures that contribute to the generation of wastewater.
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. Treatment plant process control monitoring schedule.
7. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.
8. Protocols and procedures for sanitary wastewater, irrigation wastewater, groundwater monitoring network, and soil and crop sampling and testing.

If the Permittee discontinues operating the sanitary wastewater treatment plant, and notifies Ecology as required by Special Condition S1.A, then the sanitary wastewater parts of the O&M Manual do not apply.

S4.B. 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 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.
      - Stopping production.
      - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass.
      - Transport of untreated wastes to another treatment facility.

   c. The Permittee has properly notified Ecology 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.

S4.C. Irrigation Land Application Best Management Practices

The Permittee must:

1. Operate the sprayfield system to protect the existing and future beneficial uses of the groundwater, and not cause a violation of the groundwater standards.
2. Not apply wastewater during windy conditions that could cause wastewater to drift onto public roads, surface water, or onto lands not owned by or under its control.
3. Not apply wastewater within 25 feet of any property lines, local access roads, restricted access roads, or highways.
4. Not apply wastewater within 100 feet of surface waters. Surface water bodies on or near the plant site include Stanger Creek, a tributary of Stanger Creek, Stensgar Creek, and the Colville River.
5. Not apply wastewater within 500 feet of any residence or domestic well.
6. Not apply wastewater within 1000 feet of any school or playground areas.
7. Make every reasonable effort to minimize public exposure when applying wastewater.
8. Not allow spray irrigation practices to result in runoff of wastewater to any surface waters of the state or to any land not owned by or under its control.
9. Use recognized good practices, and all available and reasonable procedures to control odors from the land application system.
10. Implement measures to reduce odors to a reasonable minimum when notified by Ecology.
11. Not apply wastewater to the land treatment sites in quantities that:
    a. Would cause soil erosion.
    b. Significantly reduce or destroy the long-term infiltration rate of the soil.
    c. Would cause long-term anaerobic conditions in the soil.
    d. Would cause ponding of wastewater and produce objectionable odors or support insects or vectors.
    e. Would cause leaching losses of constituents of concern beyond the treatment zone or in excess of the approved design. Constituents of concern are constituents in the wastewater, partial decomposition products, or soil constituents that would alter groundwater quality in amounts that would affect current and future beneficial uses.
12. Maintain all irrigation agreements for lands not owned for the duration of the permit cycle. Any reduction in irrigation lands by termination of any irrigation agreements may result in permit modification or revocation.
13. Immediately inform Ecology in writing of any proposed changes to existing irrigation agreements.
14. Meet the leaching requirement using precipitation and/or fresh water whenever leaching is required to control soil salinity.

15. Maintain a viable and healthy cover crop on all fields that receive wastewater.
16. Use supplemental water or precipitation to meet the leaching requirement to control soil salinity.
17. Adjust irrigation plans during high precipitation events to minimize percolate losses.
18. Not load BOD_5 to the fields in excess of 100 lbs/acre/day.
19. Discontinue operation during periods of heavy or prolonged rainfall to prevent ground saturation and runoff.
20. Not apply wastewater during the months of October through April.

S5. Solid Wastes

S5.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.

S5.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 Groundwater 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.

S6. Application for Permit Renewal or Modification for Facility Changes

The Permittee must submit an application for renewal of this permit by XXXX XX, 20XX (180 days before the permit expiration date).

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.

S7. Irrigation and Crop Management Plan

The Permittee must submit an Irrigation and Crop Management Plan annually by April 15th of each year for Ecology review. The plan must be prepared by a soil scientist and must generally conform to the *Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems*, Ecology 1993.

The Irrigation and Crop Management Plan must include an annual summary of farm operations for the previous year and a cropping and irrigation schedule for the upcoming year as described in the sections below.

S7.A. Annual Summary of Operations for Previous Year

The annual summary must include:

1. For each crop grown, the total acreage and quantity harvested.
2. Calculated balances for nitrogen, phosphorus, potassium, magnesium, sulfur, sodium, chloride, and salts. The calculations must include crop consumptive use, wastewater loadings of nutrients, salts, TDS, and other design limiting parameters, contributions from commercial fertilizers applied, and supplemental water.
3. A water balance including the following calculations:
    a. Irrigation system efficiency and application uniformity.
    b. The quantity of supplemental irrigation water and wastewater applied.
    c. Crop consumptive use.
    d. Water stored in the soil profile outside the normal growing season.
    e. Salt leaching requirements.
    f. The leaching fraction for each field.
4. A comparison of the actual total net nitrogen, water, salts, fixed dissolved solids, and other parameter loads, and the leaching fractions for each field to the estimated values presented in the previous year's Irrigation and Crop Management Plan.
5. A summary and evaluation of the soil testing results.
6. A summary and evaluation of the crop testing results.
7. A summary of groundwater monitoring test results and an evaluation of whether the current operation of the land treatment site is protecting groundwater quality.
8. A continuous 5-year trend analysis of groundwater monitoring data for salts (TDS, sodium, chloride, and sulfate) in all sprayfields.
9. A detailed list of changes or improvements in the management of the land treatments practices to comply with agronomic rates and leaching requirements.

S7.B. Cropping and Irrigation Schedule for Upcoming Year

This schedule must include:

1. Crop Management information including:
    a. The proposed acreage for each crop.

b. Cultivation and harvesting requirements.

c. Expected crop yields.

d. Methods for establishing a crop.

e. Proposed schedule for herbicide, pesticide, and fertilizer application.

2. Irrigation management information including:

a. The frequency and timing of wastewater and supplemental irrigation water application (including harvest and non-harvest periods).

b. Recommended rest cycles for wastewater application where organic or hydraulic loading is of concern.

c. An estimation of the leaching requirement for each field and the plan to meet the requirement.

3. The estimated annual total net nitrogen and water load capacity, and the fixed dissolved solids and BOD_5 load to each field based on the estimated wastewater discharge and planned crop rotation.

S8. Engineering Report for Fields 10 and 11

Prior to initiating land application of commingled wastewater on Fields 10 and 11, the Permittee must prepare and submit for Ecology's review and approval an engineering report and plans and specifications to propose land treatment of commingled wastewater and construction of an irrigation distribution system to Fields 10 and 11. The Permittee must meet the following requirements:

1. The Permittee must prepare and submit an approvable engineering report in accordance with Chapter 173-240 WAC to Ecology for review and approval. The engineering report must be prepared by or under the supervision of a licensed professional engineer. The report must evaluate if the Permittee can apply commingled wastewater at agronomic rates on Fields 10 and 11.

2. The report must contain any appropriate requirements as described in *Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems* (Ecology 1993).

3. Once the engineering report is approved, the Permittee must prepare and submit approvable plans and specifications for the irrigation distribution system to Fields 10 and 11 to Ecology for review and approval in accordance with chapter 173-240 WAC. In addition to the electronic copy required by Special Condition S3.B, the Permittee must submit one full size paper copy to Ecology for its use to the address listed in Special Condition S3.B. The plans and specifications must be prepared by or under the supervision of a licensed professional engineer.

S9. Hydrogeologic Study

The Permittee must evaluate the impacts of its activities on groundwater quality by completing the elements below. The Permittee must:

1. Follow the Hydrogeologic Study Workplan submitted in April 2021 and as approved by Ecology.
2. Implement the Hydrogeologic Study Workplan according to the timeline in the workplan and as approved by Ecology.
3. Submit a Hydrogeologic Study Report that includes the results of implementing the approved Hydrogeologic Study Workplan to Ecology according to the schedule in the workplan and as approved by Ecology, or within six months of completing the activities in the Hydrogeologic Study Workplan, whichever is later.

S10. Dical Study

The Permittee must evaluate the impacts of storing dical piles on groundwater at the facility by following the Dical Workplan submitted in January 2021 when approved by Ecology.

S11. Pond 3 Study

The Permittee must submit a workplan to address management of the Pond 3 wastewater. The Permittee must:

1. Submit a Pond 3 Workplan to Ecology for review and approval with the Hydrogeologic Study Report. The Pond 3 Workplan must include:
   a. All existing characterization data for the Pond 3 wastewater.
   b. Proposed plan for managing the Pond 3 wastewater.
   c. Schedule for managing the Pond 3 wastewater.
2. Revise the Pond 3 Workplan to address Ecology's comments and resubmit the Pond 3 Workplan to Ecology for review and approval, as necessary.
3. Implement the approved Pond 3 Workplan according to the timeline in the workplan.

S12. Compliance Schedule

The Permittee must follow the compliance schedule below.

Tasks	Due Date
1. Implement the approved Hydrogeologic Study Workplan	According to the timeline in Hydrogeologic Study Workplan
2. Submit Hydrogeologic Study Report	According to the timeline in the Hydrogeologic Study Workplan, or within six months of completing the activities in the Hydrogeologic Study Workplan, whichever is later

Tasks	Due Date
3. Meet groundwater quality final limits	If final limits are necessary, the final limits will be incorporated through a permit modification or during permit renewal following completion of the hydrogeologic study

S13. Certified Operator

An operator certified for at least a Class II plant by the State of Washington (per Chapter 173-230 WAC) must be in responsible charge of the day-to-day operation of the sanitary wastewater treatment plant. An operator certified for at least a Class I plant must be in charge during all regularly scheduled shifts. If the Permittee discontinues operating the sanitary wastewater treatment plant, and notifies Ecology as required by Special Condition S1.A, then Special Condition S13 does not apply.

General Conditions

G1. Signatory Requirements

All applications, reports, or information submitted to Ecology must be signed as follows:

1. All permit applications must be signed by either a principal executive officer or ranking elected official.
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 the person described above and is submitted to Ecology at the time of authorization, and
    b. The authorization specifies 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 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 Entry

Representatives of Ecology have the right to enter at all reasonable times in or upon any property, public or private, for the purpose of inspecting and investigating conditions relating to the pollution or the possible pollution of any waters of the state. Reasonable times include normal business hours; hours during which production, treatment, or discharge occurs; or times when Ecology suspects a violation requiring immediate inspection. Representatives of Ecology must be allowed to have access to, and copy at reasonable cost, any records required to be kept under terms and conditions of the permit; to inspect any monitoring equipment or method required in the permit; and to sample the discharge, waste treatment processes, or internal waste streams.

G3. Permit Actions

This permit is subject to modification, suspension, or termination, in whole or in part by Ecology for any of the following causes:

1. Violation of any permit term or condition;
2. Obtaining a permit by misrepresentation or failure to disclose all relevant facts;
3. A material change in quantity or type of waste disposal;
4. A material change in the condition of the waters of the state; or
5. Nonpayment of fees assessed pursuant to RCW 90.48.465.

Ecology may also modify this permit, including the schedule of compliance or other conditions, if it determines good and valid cause exists, including promulgation or revisions of regulations or new information.

G4. Reporting a Cause for Modification

The Permittee must submit a new application at least one hundred eighty (180) days before it wants to discharge more of any pollutant, a new pollutant, or more flow than allowed under this permit. The Permittee should use the State Waste Discharge Permit application, and submit required plans at the same time. Required plans include an Engineering Report, Plans and Specifications, and an Operations and Maintenance manual, (see Chapter 173-240 WAC). Ecology may waive these plan requirements for small changes, so contact Ecology if they do not appear necessary. The Permittee must obtain the written concurrence of the receiving POTW on the application before submitting it to Ecology. The Permittee must continue to comply with the existing permit until it is modified or reissued. Submitting a notice of dangerous waste discharge (to comply with Pretreatment or Dangerous Waste rules) triggers this requirement as well.

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 should be submitted at least 180 days prior to the planned start of construction. Facilities must be constructed and operated in accordance with the approved plans.

G6. Compliance with Other Laws and Statutes

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

G7. Transfer of this Permit

This permit is automatically transferred to a new owner or operator if:

1. A written agreement between the old and new owner or operator containing a specific date for transfer of permit responsibility, coverage, and liability is submitted to Ecology;
2. A copy of the permit is provided to the new owner and;
3. Ecology does not notify the Permittee of the need to modify the permit.

Unless this permit is automatically transferred according to Section 1. above, this permit may be transferred only if it is modified to identify the new Permittee and to incorporate such other requirements as determined necessary by Ecology.

G8. Payment of Fees

The Permittee must submit payment of fees associated with this permit as assessed by Ecology. Ecology may revoke this permit if the permit fees established under Chapter 173-224 WAC are not paid.

G9. Penalties for Violating Permit Conditions

Any person who is found guilty of willfully violating the terms and conditions of this permit is guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars 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 incurs, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars 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 a separate and distinct violation.

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. Duty to Comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of chapter 90.48 RCW and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

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 136If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

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

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

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

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

Table 1: Conventional Pollutants

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

Table 2: NonConventional Pollutants

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

Pollutant	**CAS Number** (if available)	**Recommended Analytical Protocol**	**Detection Level (DL) [1] *µg/L*** *Unless specified*	**Quantitation Level (QL) [2] *µg/L*** *Unless specified*
Chloride		SM4500-Cl B/C/D/E and SM4110 B		Sample and limit dependent
Chlorine, Total Residual		SM4500 Cl G		50.0
Cobalt, Total	7440-48-4	200.8	0.05	0.25
Color		SM2120 B/C/E		10 color units
Dissolved oxygen		SM4500-OC/OG		0.2 mg/L
E.coli		SM 9221B, 9221F, 9223B	N/A	Specified in method - sample aliquot dependent
Enterococci		SM 9230B, 9230C, 9230D	N/A	Specified in method - sample aliquot dependent
Flow		Calibrated device		
Fluoride	16984-48-8	SM4500-F E	25	100
Hardness, Total		SM2340B		200 as CaCO3
Iron, Total	7439-89-6	200.7	12.5	50
Magnesium, Total	7439-95-4	200.7	10	50
Manganese, Total	7439-96-5	200.8	0.1	0.5
Molybdenum, Total	7439-98-7	200.8	0.1	0.5
Nitrate + Nitrite Nitrogen (as N)		SM4500-NO3-E/F/H		100
Nitrogen, Total Kjeldahl (as N)		SM4500-N_{org}B/C and SM4500NH_3-B/C/D/EF/G/H		300
NWTPH Dx [4]		Ecology NWTPH Dx	250	250
NWTPH Gx [5]		Ecology NWTPH Gx	250	250
Phosphorus, Total (as P)		SM 4500 PB followed by SM4500-PE/PF	3	10

Pollutant	**CAS Number** (if available)	**Recommended Analytical Protocol**	**Detection Level (DL) [1] *µg/L*** *Unless specified*	**Quantitation Level (QL) [2] *µg/L*** *Unless specified*
Salinity		SM2520-B		3 practical salinity units or scale (PSU or PSS)
Settleable Solids		SM2540 -F		Sample and limit dependent
Soluble Reactive Phosphorus (as P)		SM4500-P E/F/G	3	10
Sulfate (as mg/L SO_4)		SM4110-B		0.2 mg/L
Sulfide (as mg/L S)		SM4500-S^2F/D/E/G		0.2 mg/L
Sulfite (as mg/L SO_3)		SM4500-SO3B		2 mg/L
Temperature (max. 7-day avg.)		Analog recorder or Use micro-recording devices known as thermistors		0.2º C
Tin, Total	7440-31-5	200.8	0.3	1.5
Titanium, Total	7440-32-6	200.8	0.5	2.5
Total Coliform		SM 9221B, 9222B, 9223B	N/A	Specified in method - sample aliquot dependent
Total Organic Carbon		SM5310-B/C/D		1 mg/L
Total dissolved solids		SM2540 C		20 mg/L

Table 3: Metals, Cyanide & Total Phenols

Priority Pollutants	**PP #**	**CAS Number** (if available)	**Recommended Analytical Protocol**	**Detection Level (DL) [1] *µg/L*** *Unless specified*	**Quantitation Level (QL) [2] *µg/L*** *Unless specified*
Antimony, Total	114	7440-36-0	200.8	0.3	1.0

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

Table 4: Acid Compounds

Priority Pollutants	**PP #**	**CAS Number** (if available)	**Recommended Analytical Protocol**	**Detection Level (DL) [1] *µg/L*** *Unless specified*	**Quantitation Level (QL) [2] *µg/L*** *Unless specified*
2-Chlorophenol	24	95-57-8	625.1	3.3	9.9
2,4-Dichlorophenol	31	120-83-2	625.1	2.7	8.1

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

Table 5: Volatile Compounds

Priority Pollutants	**PP #**	**CAS Number** (if available)	**Recommended Analytical Protocol**	**Detection Level (DL) [1] *µg/L*** *Unless specified*	**Quantitation Level (QL) [2] *µg/L*** *Unless specified*
Acrolein	2	107-02-8	624.1	5	10
Acrylonitrile	3	107-13-1	624.1	1.0	2.0
Benzene	4	71-43-2	624.1	4.4	13.2
Bromoform	47	75-25-2	624.1	4.7	14.1
Carbon tetrachloride	6	56-23-5	624.1/601 or SM6230B	2.8	8.4
Chlorobenzene	7	108-90-7	624.1	6.0	18.0
Chloroethane	16	75-00-3	624/601	1.0	2.0
2-Chloroethylvinyl Ether	19	110-75-8	624.1	1.0	2.0
Chloroform	23	67-66-3	624.1 or SM6210B	1.6	4.8

Priority Pollutants	**PP #**	**CAS Number** (if available)	**Recommended Analytical Protocol**	**Detection Level (DL) [1] *µg/L*** *Unless specified*	**Quantitation Level (QL) [2] *µg/L*** *Unless specified*
Dibromochloromethane (chlordibromomethane)	51	124-48-1	624.1	3.1	9.3
1,2-Dichlorobenzene	25	95-50-1	624.1	1.9	7.6
1,3-Dichlorobenzene	26	541-73-1	624.1	1.9	7.6
1,4-Dichlorobenzene	27	106-46-7	624.1	4.4	17.6
Dichlorobromomethane	48	75-27-4	624.1	2.2	6.6
1,1-Dichloroethane	13	75-34-3	624.1	4.7	14.1
1,2-Dichloroethane	10	107-06-2	624.1	2.8	8.4
1,1-Dichloroethylene	29	75-35-4	624.1	2.8	8.4
1,2-Dichloropropane	32	78-87-5	624.1	6.0	18.0
1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene)[6]	33	542-75-6	624.1	5.0	15.0
Ethylbenzene	38	100-41-4	624.1	7.2	21.6
Methyl bromide (Bromomethane)	46	74-83-9	624/601	5.0	10.0
Methyl chloride (Chloromethane)	45	74-87-3	624.1	1.0	2.0
Methylene chloride	44	75-09-2	624.1	2.8	8.4
1,1,2,2-Tetrachloroethane	15	79-34-5	624.1	6.9	20.7
Tetrachloroethylene	85	127-18-4	624.1	4.1	12.3
Toluene	86	108-88-3	624.1	6.0	18.0
1,2-Trans-Dichloroethylene (Ethylene dichloride)	30	156-60-5	624.1	1.6	4.8
1,1,1-Trichloroethane	11	71-55-6	624.1	3.8	11.4
1,1,2-Trichloroethane	14	79-00-5	624.1	5.0	15.0
Trichloroethylene	87	79-01-6	624.1	1.9	5.7
Vinyl chloride	88	75-01-4	624/SM6200B	1.0	2.0

Table 6: Base/Neutral Compounds (Compounds in Bold are Ecology PBTS)

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] *µg/L Unless specified*	Quantitation Level (QL) [2] *µg/L Unless specified*
Acenaphthene	1	83-32-9	625.1	1.9	5.7
Acenaphthylene	77	208-96-8	625.1	3.5	10.5
Anthracene	78	120-12-7	625.1	1.9	5.7
Benzidine	5	92-87-5	625.1	44	132
Benzyl butyl phthalate	67	85-68-7	625.1	2.5	7.5
Benzo(a)anthracene	72	56-55-3	625.1	7.8	23.4
Benzo(b)fluoranthene (3,4-benzofluoranthene) [7]	74	205-99-2	610/625.1	4.8	14.4
Benzo(j)fluoranthene [7]		205-82-3	625	0.5	1.0
Benzo(k)fluoranthene (11,12-benzofluoranthene) [7]	75	207-08-9	610/625.1	2.5	7.5
Benzo(r,s,t)pentaphene		189-55-9	625	1.3	5.0
Benzo(a)pyrene	73	50-32-8	610/625.1	2.5	7.5
Benzo(ghi)Perylene	79	191-24-2	610/625.1	4.1	12.3
Bis(2-chloroethoxy)methane	43	111-91-1	625.1	5.3	15.9
Bis(2-chloroethyl)ether	18	111-44-4	611/625.1	5.7	17.1
Bis(2-chloro-1-methylethyl)Ether (Bis(2-chloroisopropyl)ether)[10]	42	108-60-1	625.1	5.7	17.1
Bis(2-ethylhexyl)phthalate	66	117-81-7	625.1	2.5	7.5
4-Bromophenyl phenyl ether	41	101-55-3	625.1	1.9	5.7
2-Chloronaphthalene	20	91-58-7	625.1	1.9	5.7
4-Chlorophenyl phenyl ether	40	7005-72-3	625.1	4.2	12.6

Priority Pollutants	**PP #**	**CAS Number** (if available)	**Recommended Analytical Protocol**	**Detection Level (DL) [1] *µg/L*** *Unless specified*	**Quantitation Level (QL) [2] *µg/L*** *Unless specified*
Chrysene	76	218-01-9	610/625.1	2.5	7.5
Dibenzo (a,h)acridine		226-36-8	610M/625M	2.5	10.0
Dibenzo (a,j)acridine		224-42-0	610M/625M	2.5	10.0
Dibenzo(a-h)anthracene (1,2,5,6-dibenzanthracene)	82	53-70-3	625.1	2.5	7.5
Dibenzo(a,e)pyrene		192-65-4	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene		189-64-0	625M	2.5	10.0
3,3-Dichlorobenzidine	28	91-94-1	605/625.1	16.5	49.5
Diethyl phthalate	70	84-66-2	625.1	1.9	5.7
Dimethyl phthalate	71	131-11-3	625.1	1.6	4.8
Di-n-butyl phthalate	68	84-74-2	625.1	2.5	7.5
2,4-dinitrotoluene	35	121-14-2	609/625.1	5.7	17.1
2,6-dinitrotoluene	36	606-20-2	609/625.1	1.9	5.7
Di-n-octyl phthalate	69	117-84-0	625.1	2.5	7.5
1,2-Diphenylhydrazine (as Azobenzene)	37	122-66-7	1625B/625.1	5.0	20
Fluoranthene	39	206-44-0	625.1	2.2	6.6
Fluorene	80	86-73-7	625.1	1.9	5.7
Hexachlorobenzene	9	118-74-1	612/625.1	1.9	5.7
Hexachlorobutadiene	52	87-68-3	625.1	0.9	2.7
Hexachlorocyclopentadiene	53	77-47-4	1625B/625.1	2.0	4.0
Hexachloroethane	12	67-72-1	625.1	1.6	4.8
Indeno(1,2,3-cd)Pyrene	83	193-39-5	610/625.1	3.7	11.1
Isophorone	54	78-59-1	625.1	2.2	6.6
3-Methyl cholanthrene		56-49-5	625	2.0	8.0
Naphthalene	55	91-20-3	625.1	1.6	4.8

Priority Pollutants	**PP #**	**CAS Number** (if available)	**Recommended Analytical Protocol**	**Detection Level (DL) [1] *µg/L*** *Unless specified*	**Quantitation Level (QL) [2] *µg/L*** *Unless specified*
Nitrobenzene	56	98-95-3	625.1	1.9	5.7
N-Nitrosodimethylamine	61	62-75-9	607/625.1	2.0	4.0
N-Nitrosodi-n-propylamine	63	621-64-7	607/625.1	0.5	1.0
N-Nitrosodiphenylamine	62	86-30-6	625.1	1.0	2.0
Perylene		198-55-0	625	1.9	7.6
Phenanthrene	81	85-01-8	625.1	5.4	16.2
Pyrene	84	129-00-0	625.1	1.9	5.7
1,2,4-Trichlorobenzene	8	120-82-1	625.1	1.9	5.7

Table 7: Dioxin

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

Table 8: Pesticides/PCBS

Priority Pollutants	**PP #**	**CAS Number** (if available)	**Recommended Analytical Protocol**	**Detection Level (DL) [1] *µg/L*** *Unless specified*	**Quantitation Level (QL) [2] *µg/L*** *Unless specified*
Aldrin	89	309-00-2	608.3	4.0 ng/L	12 ng/L
alpha-BHC	102	319-84-6	608.3	3.0 ng/L	9.0 ng/L
beta-BHC	103	319-85-7	608.3	6.0 ng/L	18 ng/L
gamma-BHC (Lindane)	104	58-89-9	608.3	4.0 ng/L	12 ng/L
delta-BHC	105	319-86-8	608.3	9.0 ng/L	27 ng/L

Priority Pollutants	**PP #**	**CAS Number** (if available)	**Recommended Analytical Protocol**	**Detection Level (DL) [1] *µg/L*** *Unless specified*	**Quantitation Level (QL) [2] *µg/L*** *Unless specified*
Chlordane [8]	91	57-74-9	608.3	14 ng/L	42 ng/L
4,4'-DDT	92	50-29-3	608.3	12 ng/L	36 ng/L
4,4'-DDE	93	72-55-9	608.3	4.0 ng/L	12 ng/L
4,4' DDD	94	72-54-8	608.3	11ng/L	33 ng/L
Dieldrin	90	60-57-1	608.3	2.0 ng/L	6.0 ng/L
alpha-Endosulfan	95	959-98-8	608.3	14 ng/L	42 ng/L
beta-Endosulfan	96	33213-65-9	608.3	4.0 ng/L	12 ng/L
Endosulfan Sulfate	97	1031-07-8	608.3	66 ng/L	198 ng/L
Endrin	98	72-20-8	608.3	6.0 ng/L	18 ng/L
Endrin Aldehyde	99	7421-93-4	608.3	23 ng/L	70 ng/L
Heptachlor	100	76-44-8	608.3	3.0 ng/L	9.0 ng/L
Heptachlor Epoxide	101	1024-57-3	608.3	83 ng/L	249 ng/L
PCB-1242 [9]	106	53469-21-9	608.3	0.065	0.195
PCB-1254	107	11097-69-1	608.3	0.065	0.195
PCB-1221	108	11104-28-2	608.3	0.065	0.195
PCB-1232	109	11141-16-5	608.3	0.065	0.195
PCB-1248	110	12672-29-6	608.3	0.065	0.195
PCB-1260	111	11096-82-5	608.3	0.065	0.195
PCB-1016 [9]	112	12674-11-2	608.3	0.065	0.195

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] *µg/L Unless specified*	Quantitation Level (QL) [2] *µg/L Unless specified*
Toxaphene	113	8001-35-2	608.3	240 ng/L	720 ng/L

Footnotes

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

2. **Quantitation Level (QL)** – also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1, 2, or 5) x 10^n, where n is an integer. (64 FR 30417).

   Also Given As: The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

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

4. **Northwest Total Petroleum Hydrocarbons Diesel Extended Range** OR **NWTPH Dx** – Analytical Methods for Petroleum Hydrocarbons https://fortress.wa.gov/ecy/publications/documents/97602.pdf

5. **Northwest Total Petroleum Hydrocarbons Gasoline Extended** Range OR **NWTPH Gx** – Analytical Methods for Petroleum Hydrocarbons https://fortress.wa.gov/ecy/publications/documents/97602.pdf

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

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

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

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

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