



Issuance Date: June 25, 2020  
Effective Date: July 1, 2020  
Expiration Date: June 30, 2025  
Modification Date: November XX, 2024

## **STATE WASTE DISCHARGE PERMIT ST0501320**

### **State of Washington DEPARTMENT OF ECOLOGY**

Northwest Region Office  
PO Box 330316  
Shoreline WA 98133-9716

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

Skagit Valley Farm Cooling  
PO Box 870  
Burlington, WA 98233

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

Facility Location: 11263 Pulver Road, Burlington, WA 98233  
Treatment Type: Hydrosieve followed by Land Treatment  
Industry Type: Post-harvest Crop Activities  
SIC Code: 0723  
NAICS Code: 115114  
Discharge Location: 1.5 acres of pasture, Section 31, T35N, R4E

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**DRAFT**

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## SUMMARY OF PERMIT SUBMITTALS

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

**Table 1 - Summary of Permit Submittals**

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Monthly Discharge Monitoring Report (DMR)	Monthly	August 28, 2020
S3.A	Quarterly Discharge Monitoring Report (DMR)	Quarterly	October 28, 2020
S3.A	Annual Discharge Monitoring Report (DMR)	Semiannual	January 28, 2021
S3.A	Semiannual Discharge Monitoring Report (DMR)	Annual	January 28, 2021
S3.F	Reporting permit violations	As necessary	
S4.A	Operations and Maintenance manual	1/permit cycle	October 1, 2020
S4.C	Bypass notification	As necessary	
S6	Application for permit renewal	1/permit cycle	April 30, 2025
S10	Non-routine discharge report	As necessary	
S12	Groundwater Monitoring Wells	1/permit cycle	January 1, 2022
S13	Groundwater quality evaluation scope of work	1/permit cycle	January 1, 2021
S13	Groundwater quality evaluation study report	1/permit cycle	July 1, 2021
S14	Annual Irrigation Report	1/year	March 1, 2021
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	

## SPECIAL CONDITIONS

### S1. Discharge limits

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

#### S1.A. Effluent Limits

Beginning on July 1, 2020, the Permittee is authorized to apply process wastewater to the designated land treatment site via spray irrigation not to exceed the agronomic rates for nitrogen and water, and at rates for any other wastewater constituents to protect background water quality. The Permittee shall make every effort to not apply wastewater during periods of high or continued precipitation between October and April.

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

Approximately 1.5 acres located approximately 1 mile west-northwest of the city of Burlington, 0.65 miles west of Interstate 5, at 11263 Pulver Road, in the SW¼, NW½ of section 31 T35N, R04E WM.

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

The Permittee must operate the spray field in is 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).

Discharges are subject to the following limits:

**Table 2 – Effluent limits: Outfall #001 (MP01)**

Latitude: 48.4821278 Longitude: -122.3538889

Parameter	Average Monthly <sup>a</sup>	Maximum Daily <sup>b</sup>
Flow	33,000 gallons/day	33,000 gallons/day
Soluble Biochemical Oxygen Demand (Soluble BOD <sub>5</sub> )	100 lb/ac/day	---
Total Dissolved Solids	457 mg/L	500 mg/L

  

Parameter	Minimum	Maximum
pH	6.5 standard units	8.5 standard units

Parameter	Monthly Geometric Mean	Weekly Geometric Mean
Total Coliform Bacteria <sup>c</sup>	200 CFU <sup>d</sup> /100 mL	400 CFU/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, 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.

b 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. The average daily measurement does not apply to pH or temperature.

c Ecology provides directions to calculate the monthly and the 7-day geometric mean in the *Information Manual for Treatment Plant Operators* (Ecology, 2004).

d Colony Forming Units (CFU)/100 milliliter (mL)

#### **S1.B. Groundwater Early Warning Values**

Early warning values (EWVs) are established to indicate potential changes in effluent quality that may indicate a possible impact to groundwater. Early warning values apply to effluent and groundwater. Two consecutive exceedances of an EWV for the same parameter may indicate a change in conditions that will require additional investigation.

**Table 3 - Average Early Warning Values Outfalls 001 (MP01) and MW-1, MW-2, and MW-3**

Parameter	Average Monthly	Daily Maximum	Unit
Arsenic	0.26	0.37	µg/L
Manganese	16	22	mg/L

#### **S1.C. Best management practices/pollution prevention**

The Permittee must comply with the following Best Management Practices to prevent pollution to waters of the State:

1. Do not discharge in excess of the hydraulic capacity of the spray field so that runoff or prolonged ponding occurs.
2. Do not discharge priority pollutants, dangerous wastes, or toxics in toxic amounts.
3. Do not commingle process wastewater streams with sanitary (domestic) sewage.

## S2. Monitoring requirements

### S2.A. Irrigation wastewater monitoring

The Permittee must sample at a location that best represents the discharge pumped and applied to the spray field. The sampling point for the irrigated wastewater is at the irrigation wet well pump station (Outfall 001, MP-01). The Permittee must report results in the annual Irrigation Report; Section S11.

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

**Table 4 - Irrigation wastewater monitoring**

Parameter	Units	Minimum Sampling Frequency	Sample Type
Flow	gallons/day (gpd)	Continuous <sup>a</sup>	Metered <sup>b</sup>
BOD <sub>5</sub>	mg/L <sup>c</sup>	Monthly <sup>d</sup>	Grab <sup>e</sup>
BOD <sub>5</sub>	lbs/ac/day <sup>f</sup>	Monthly	Calculated <sup>g</sup>
Total Suspended Solids (TSS)	mg/L	Monthly	Grab
Total Dissolved Solids (TDS)	mg/L	Monthly	Grab
TDS	lbs/day	Monthly	Calculated
pH	Standard Units	Monthly	Measured <sup>h</sup>
Total Coliform Bacteria	CFU/100 mL <sup>i</sup>	Monthly	Grab
Chloride	mg/L	Monthly	Grab
Total Kjeldahl Nitrogen (TKN)	mg/L as N	Monthly	Grab
Nitrate plus Nitrite Nitrogen	mg/L as N	Monthly	Grab
Total Nitrogen	mg/L	Monthly	Calculated
Iron	mg/L	Monthly	Grab
Manganese	mg/L	Monthly	Grab
Ammonia – Nitrogen	mg/L as N	Quarterly <sup>j</sup>	Grab
Arsenic	µg/L <sup>l</sup>	Quarterly	Grab
NWTPH – Dx <sup>k</sup>	mg/L	Quarterly	Grab
Oil & Grease	mg/L	Quarterly	Grab
Ortho-phosphate – P	mg/L	Quarterly	Grab
Total Phosphorous – P	mg/L	Quarterly	Grab
Alkalinity	mg/L as CaCO <sub>3</sub>	Semi-Annually <sup>m</sup>	Grab
Hardness	mg/L as CaCO <sub>3</sub>	Semi-Annually	Grab
Sulfate	mg/L	Semi-Annually	Grab
Calcium	mg/L	Semi-Annually	Grab
Magnesium	mg/L	Semi-Annually	Grab
Potassium	mg/L	Semi-Annually	Grab

Parameter	Units	Minimum Sampling Frequency	Sample Type
Sodium	mg/L	Semi-Annually	Grab
Conductivity	µmhos/cm <sup>n</sup>	Semi-Annually	Measured
Fecal Coliform	CFU/100 mL	Semi-Annually	Grab

Footnotes:

- 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 be no greater than 30 minutes.
- b Metered means the parameter is obtained from a calibrated metering device (e.g., a flow meter).
- c mg/L = milligrams per liter
- d Monthly means at least one sample is collected every month. Monthly sampling will begin on July 1, 2020 with results reported on August 28, 2020.
- e Grab = means an individual sample collected over a fifteen (15) minute, or less, period.
- f lbs/ac/day = Pounds per acre per day.
- g Calculated means the parameter value is calculated from another parameter(s).
- h Measured means the parameter value is measured using a calibrated field instrument.
- I CFU/100 mL = Colony forming units per 100 milliliters.
- j Quarterly monitoring periods are January-March, April-June, July-September, and October-December.
- k NWTPH – Dx = Northwest total petroleum hydrocarbon – diesel range hydrocarbons. This also shall include heavier oil range hydrocarbons as well.
- l µg/L = Micrograms per liter.
- m Semi-Annually means samples will be collected twice per year. Semi-annual sampling periods are January 1 to June 30 and July 1 to December 31. The first semi-annual sampling period will be from July 1, 2020 to December 31, 2020 with results report by January 28, 2021.
- n µmhos/cm = Micromhos per centimeter.

**S2.B. Groundwater monitoring**

If the hydrogeologic study specified in Special Condition S10 recommends groundwater monitoring, then the Permittee must monitor groundwater at monitoring wells MW-1, MW-2, MW-3, and MW-4 in accordance with the following schedule and the requirements specified in Appendix A.



**Table 5 - Groundwater monitoring (Outfall: 002, Monitoring Points MW-1 thru MW-4)**

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Measured Depth to Groundwater	Feet (nearest 0.01 ft)	Monthly <sup>a</sup>	Field Measurement <sup>b</sup>
pH	Standard Units	Quarterly <sup>c</sup>	Field Measurement
Conductivity	µmhos/cm	Quarterly	Field Measurement
Dissolved Oxygen	mg/L	Quarterly	Field Measurement
Oxidation Reduction Potential	Millivolts	Quarterly	Field Measurement
Turbidity	NTU <sup>d</sup>	Quarterly	Field Measurement
Temperature	Degrees C	Quarterly	Field Measurement
BOD <sub>5</sub>	mg/L	Quarterly	Grab <sup>e</sup>
TDS	mg/L	Quarterly	Grab
TSS	mg/L	Quarterly	Grab
Chloride	mg/L	Quarterly	Grab
Sulfate	mg/L	Quarterly	Grab
Total Coliform Bacteria	CFU/100 mL <sup>f</sup>	Quarterly	Grab
Ammonia – Nitrogen	mg/L as N	Quarterly	Grab
TKN	mg/L as N	Quarterly	Grab
Nitrate plus Nitrite Nitrogen	mg/L as N	Quarterly	Grab
Total Nitrogen	mg/L	Quarterly	Calculated <sup>g</sup>
Total Phosphorous – P	mg/L	Quarterly	Grab
Ortho-phosphate – P	mg/L	Quarterly	Grab
Iron	mg/L	Quarterly	Grab
Manganese	mg/L	Quarterly	Grab
Arsenic	µg/L <sup>h</sup>	Quarterly	Grab
Alkalinity	mg/L as CaCO <sub>3</sub>	Semi-Annually <sup>i</sup>	Grab
Hardness	mg/L as CaCO <sub>3</sub>	Semi-Annually	Grab
Calcium (Total)	mg/L	Semi-Annually	Grab
Potassium (Total)	mg/L	Semi-Annually	Grab
Magnesium (Total)	mg/L	Semi-Annually	Grab
Sodium (Total)	mg/L	Semi-Annually	Grab
Fecal Coliform	CFU/100 mL	Semi-Annually	Grab

**Footnotes:**

a Monthly means at least one sample is collected every month. Monthly sampling will begin upon completion of groundwater monitoring well installation.

b Field Measurement means the parameter is recorded using a calibrated field instrument (e.g., a multi-probe, thermometer, etc.).

- c Quarterly means at least one sample will be collected during each calendar 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 July 1, 2021 and submit results by October 28, 2021.
- d NTU = National turbidity units.
- e Grab means an individual sample collected over a fifteen (15) minute, or less, period.
- f CFU/100 mL = Colony forming units per 100 milliliters.
- g Calculated means the parameter value is calculated from another parameter(s).
- h µg/L = Micrograms per liter.
- i Semi-Annually means at least two samples will be collected per year. Semiannual sampling periods are January 1 to June 30 and July 1 to December 31.

### **S2.C. Soil monitoring**

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

1. Monitor once per year unless otherwise specified.
2. Locate sampling sites so they best represent each land treatment site or as identified in the crop management plan.
3. One sampling site will be in the center of each spray field.
4. To the extent possible, the spray field shall be divided into quarters with at least one sampling site in each quarter.
5. Locate sampling sites in the same vicinity each year, if possible.
6. Test soil at each sampling site on one-foot soil increments.
7. Submit results annually with the Summary Irrigation Report.
8. Composite a minimum of four (4) core samples at the depth increments as defined in the table below (or until auger refusal).
9. Collect samples at a time that best represents soil conditions at the end of the crop-growing season.
10. Measure ferrous iron for each field quarter as described in the table below and as follows; the Permittee must:
  - a. Test on a quarterly basis immediately prior to any application.
  - b. Collect samples from any areas, which show indications of ponding of wastewater or poor plant growth, which might be associated with saturated soils.
  - c. Include a summary of the results of these tests with the quarterly discharge monitoring report (DMR).
  - d. Locate on a sketch map the locations of any samples which indicate the presence of ferrous iron and describe the corrective actions taken in the report.

**Table 6 - Soil Monitoring Outfall: 003, Monitoring point: 1PS1 thru 5PS1 (Center of Land Treatment Area)**

Parameter	Units & Speciation	Sample Point	Depth Increments
Ferrous Iron <sup>a</sup>	Presence or absence	Each Field	0 – 12 in.

a Test surficial soils (to 6-inch depth) for the presence or absence of ferrous iron using the 1000 mg/liter 2-2' dipyrindyl indicator solution (*Field Techniques for Measuring Wetland Soil Parameters*, Faulkner, et. al., May-June 1989)

The Permittee must monitor the soils in the spray field annually according to the following schedule, and report the results on the Annual DMRs:

**Table 7 - Soil monitoring, Outfall: 003, Monitoring point: 1S01 thru 1S06**

Parameter	Units & Speciation	Sample Point	Depth Increments <sup>a, b, c</sup>
Exchangeable Sodium Percentage	%	Each field	1, 2, 3, 4 (5, 6)
Cation Exchange Capacity	meq/100g	Each field	1, 2, 3, 4 (5, 6)
Organic Matter	%	Each field	1, 2, 3, 4 (5, 6)
Moisture Content	%	Each field	1, 2, 3, 4 (5, 6)
Total Kjeldahl Nitrogen (TKN)	mg/Kg as N	Each field	1, 2, 3, 4 (5, 6)
Nitrate plus Nitrite Nitrogen	mg/Kg as N	Each field	1, 2, 3, 4 (5, 6)
NH3 Nitrogen	mg/Kg as N	Each field	1, 2, 3, 4 (5, 6)
Phosphorus (Total)	mg/Kg	Each field	1, 2, 3, 4 (5, 6)
Ortho-phosphate – P	mg/Kg	Each field	1, 2, 3, 4 (5, 6)
Conductivity	micromhos/cm	Each field	1, 2, 3, 4 (5, 6)
pH	Standard Units	Each field	1, 2, 3, 4 (5, 6)
Chloride	mg/Kg	Each field	1, 2, 3, 4 (5, 6)
Sulfate	mg/Kg as S	Each field	1, 2, 3, 4 (5, 6)
Calcium (Total)	meq/100g	Each field	1, 2, 3, 4 (5, 6)
Magnesium (Total)	meq/100g	Each field	1, 2, 3, 4 (5, 6)
Sodium (Total)	meq/100g	Each field	1, 2, 3, 4 (5, 6)
Iron (Total)	mg/Kg	Each field	1, 2, 3, 4 (5, 6)
Manganese (Total)	mg/Kg	Each field	1, 2, 3, 4 (5, 6)
Potassium (Total)	mg/Kg	Each field	1, 2, 3, 4 (5, 6)

**Footnotes:**

a Use depth increments (ft.) vs. depth (inches) for composite samples as follows: (1) 0 -12 inches; (2) 12-24 inches; (3) 24-36 inches; (4) 36-48 inches; (5) 48-60 inches; (6) 60-72 inches.

b Samples from Increments 5 and 6 (Monitoring point [MP] 1S05 and 1S06) will be collected in permit years one and five. For permit years two through four only intervals 1 through 4 (MP 1S01 thru 1S04) will be sampled.

c If soil data indicates migration of a parameter, additional increments may be added as determined by Ecology.

**Table 8 - Soil monitoring, Outfall: 003, Monitoring point: 2S01 thru 5S03**

Parameter	Units & Speciation	Sample Point	Depth Increments <sup>a, b</sup>
Exchangeable Sodium Percentage	%	Each field	1, 2, 3
Cation Exchange Capacity	meq/100g	Each field	1, 2, 3
Organic Matter	%	Each field	1, 2, 3
Moisture Content	%	Each field	1, 2, 3
Total Kjeldahl Nitrogen (TKN)	mg/Kg as N	Each field	1, 2, 3
Nitrate plus Nitrite Nitrogen	mg/Kg as N	Each field	1, 2, 3
NH3 Nitrogen	mg/Kg as N	Each field	1, 2, 3
Phosphorus (Total)	mg/Kg	Each field	1, 2, 3
Ortho-phosphate – P	mg/Kg	Each field	1, 2, 3
Conductivity	micromhos/cm	Each field	1, 2, 3
pH	Standard Units	Each field	1, 2, 3
Chloride	mg/Kg	Each field	1, 2, 3
Sulfate	mg/Kg as S	Each field	1, 2, 3
Calcium (Total)	meq/100g	Each field	1, 2, 3
Magnesium (Total)	meq/100g	Each field	1, 2, 3
Sodium (Total)	meq/100g	Each field	1, 2, 3
Iron (Total)	mg/Kg	Each field	1, 2, 3
Manganese (Total)	mg/Kg	Each field	1, 2, 3
Potassium (Total)	mg/Kg	Each field	1, 2, 3

Footnotes:

a Use depth increments (ft.) vs. depth (inches) for composite samples as follows: (1) 0 -12 inches; (2) 12-24 inches; (3) 24-36 inches; (4) 36-48 inches; (5) 48-60 inches; (6) 60-72 inches.

b If soil data indicates migration of a parameter, additional increments may be added as determined by Ecology.

### **S2.D. Crop monitoring**

If the spray field is used for crop production and harvesting, 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 random samples collected from each center-pivot field, and from the handline fields.
3. Submit results annually with the Summary Irrigation Report.

**Table 9 - Crop monitoring, Outfall: 004, Monitoring Point C01**

Parameter	Units, Speciation, & Measurement Basis	Sample Type
Crop Production	dry tons/acre	Grab
Moisture Content	%	Grab

**S2.E. 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 protocols in the *Implementation Guidance for the Ground Water Quality Standards*, (Ecology, 2005).

Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 or *Standard Methods for the Examination of Water and Wastewater* (APHA) unless otherwise specified in this permit or approved in writing by Ecology.

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 (Miller, Gavlak, & Horneck, 2013).

The Permittee must also participate in a proficiency testing program such as the [North American Proficiency Testing Program \(NAPT\)](https://www.naptprogram.org/)<sup>1</sup>.

**S2.F. 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 waste stream.
3. Calibrate continuous monitoring instruments weekly unless it can demonstrate a longer period is sufficient based on monitoring records. The Permittee:
  - a. May calibrate apparatus for continuous monitoring of dissolved oxygen by air calibration.
  - b. Must calibrate continuous pH measurement instruments according to the manufacturer's requirements.
  - c. Must calibrate continuous chlorine measurement instruments using a grab sample analyzed in the laboratory within 15 minutes of sampling.

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<sup>1</sup> <https://www.naptprogram.org/>

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.G. 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 Washington Administrative Code (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.H. 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](#)<sup>2</sup>. Include data for each of the parameters tabulated in Special Conditions S2 and as required by the form. Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.
2. Submit DMRs no later than the dates specified below, unless otherwise specified in this permit.
  3. 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 28th day of the following month.
    - b. Submit quarterly DMRs, unless otherwise specified in the permit, by the 28th day of the 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 October 28, 2020 for the quarter beginning on July 1, 2020.
    - c. Submit semi-annual DMRs, unless otherwise specified in the permit, by July 28 and January 28 of each year. Semiannual sampling periods are January through June, and July through December.
    - d. Submit annual DMRs, unless otherwise specified in the permit, by January 28 for the previous calendar year. The annual sampling period is the calendar year.
  4. Enter the “No Discharge” reporting code for an entire DMR, for a specific monitoring point, or a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.
  5. Report single analytical values below detection as “less than the Detection Level (DL)” by entering the < 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.
  6. Report single analytical values between the DL and the QL by entering the estimated value, the code for estimated value/below quantitation limit (J) and any additional information in the comments.
  7. Submit a copy of the laboratory report as an attachment using WQWebDMR. Laboratory reports must include the chain of custody and QA/QC results.
  8. Submit bacteria monitoring results as follows:
    - a. Do Not report zero for bacterial monitoring. Report as required by the laboratory method.

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<sup>2</sup> <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance>

- b. Calculate and report an arithmetic average value for each day for bacteria if multiple samples were taken in one day.
  - c. Calculate the geometric mean values for bacteria (unless otherwise specified in the permit) using the reported numeric value for all bacteria samples measured above the detection value except when it took multiple samples in one day. If multiple samples are taken in one day, use the arithmetic average for the day in the geometric mean calculation. Use the detection value for those samples measured below detection.
9. 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.
10. Calculate average values and calculated total values (unless otherwise specified in the permit) using:
  - a. The reported numeric value for all parameters measured between the detection value and the quantitation value for the sample analysis.
  - b. One-half ( $1/2$ ) 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 reporting period.

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

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

Water Quality Permit Coordinator  
Department of Ecology  
Northwest Region Office  
P.O. Box 330316  
Shoreline, WA 98133-9716

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

The Permittee must retain records of all monitoring information for a minimum of three 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 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 date and time the analysis was performed.
4. The individual who performed the analysis.
5. The analytical technique or method 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 30 days of sampling.

a. Immediate reporting

The Permittee must **immediately** report to Ecology (at the numbers listed below), for all:

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

Northwest Region Office 206-594-0000

b. Twenty-four (24) hour reporting

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

- (i) Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
- (ii) Any unanticipated bypass that causes an exceedance of any effluent limit in the permit (See Part S4.B., Bypass Procedures).
- (iii) Any upset that causes an exceedance of any 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.
- (iv) Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Special Condition S1.A. of this permit.
- (v) Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit. This requirement does not include industrial process wastewater overflows to impermeable surfaces which are collected and routed to the treatment works.
- (vi) When a monitoring well parameter exceeds an enforcement limit in 2 consecutive sampling events.

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:

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

Submit the written report electronically using the Water Quality Permitting Portal – Permit Submittals application.

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 Special Condition 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**

1. Inspections and record keeping:

- a. The O&M manual shall include documentation of procedures to ensure compliance with requirements for inspections and record keeping. An inspection/maintenance logbook shall be kept and, at a minimum, shall include:

- (i) Time and date of the inspection.
- (ii) Location(s) inspected equipment.
- (iii) Statements that, in the judgment of:
  - (i) the person conducting the site inspection, and
  - (ii) the person described in Condition G1.
    - 1. The site is either in compliance or out of compliance with the terms and conditions of this permit.
- (iv) A summary report and a schedule of implementation of the remedial actions that the Permittee plans to take if the site inspection indicates that the site is out of compliance. The remedial actions taken must meet the requirements of the permit.
- (v) Name, title, and signature of the person conducting site inspection; and the following statement: "I certify that this report is true, accurate, and complete, to the best of my knowledge and belief."
- (vi) Certification and signature of the person or a duly authorized representative of the facility described in and in accordance with Condition G1.

2. Spills of oil or hazardous materials

In addition to the requirements in S3.F, the Permittee must report a spill of oil or hazardous materials in accordance with the requirements of Revised Code of Washington (RCW) 90.56.280 and WAC 173-303-145. Visit the website [How to Report a Spill](https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue/Report-a-spill)<sup>3</sup> for further instructions.

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<sup>3</sup> <https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue/Report-a-spill>

3. 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 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.

**S4.A. Operations and maintenance (O&M) manual**

1. The Permittee must:
  - a. Prepare an Operations and Maintenance (O&M) Manual that meets the requirements of 173-240-080 WAC and submit it to Ecology for approval by October 1, 2020.
  - b. The O&M manual for the wastewater treatment system does not need to be a stand-alone document. It can consist of existing operating procedures and rules.
  - c. Submit to Ecology for review any substantial changes or updates to the O&M Manual.
  - d. Keep the approved O&M Manual at the permitted facility.
  - e. Follow the instructions and procedures of this manual.
2. In addition to the requirements of WAC 173-240-080(1) through (5), the O&M Manual must be consistent with the guidance in Section G1-4.4 in the *Criteria for Sewage Works Design (Orange Book)* (Ecology, 2023). The O&M Manual must include:
  - a. Emergency procedures for cleanup in the event of wastewater system upset or failure.
  - b. Irrigation system operational controls and procedures.
  - c. Wastewater system maintenance procedures that contribute to the generation of process wastewater.
  - d. Sampling procedures and reporting protocols to comply with the reporting requirements in the discharge permit.
  - e. 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).

- f. The treatment plant process control monitoring schedule.
- g. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.
- h. Protocols and procedures for groundwater monitoring network and soil sampling and testing.

#### **S4.B. Bypass procedures**

A bypass is the intentional diversion of waste streams from any portion of a treatment facility. This permit prohibits all bypasses except when the bypass is for essential maintenance, as authorized in special condition S4.B.1, or is approved by Ecology as an anticipated bypass following the procedures in S4.B.2.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions: This permit allows bypasses for essential maintenance of the treatment system when necessary to ensure efficient operation of the system. The Permittee may bypass the treatment system for essential maintenance only if doing so does not cause violations of effluent limits. The Permittee is not required to notify Ecology when bypassing for essential maintenance. However, the Permittee must comply with the monitoring requirements specified in special condition S2.B.
2. Anticipated bypasses for non-essential maintenance: Ecology may approve an anticipated bypass under the conditions listed below. This permit prohibits any anticipated bypass that is not approved through the following process.
  - a. If a bypass is for non-essential maintenance, the Permittee must notify Ecology, if possible, at least ten (10) days before the planned date of bypass. The notice must contain:
    - A description of the bypass and the reason the bypass is necessary.
    - An analysis of all known alternatives which would eliminate, reduce, or mitigate the potential impacts from the proposed bypass.
    - A cost-effectiveness analysis of alternatives.
    - The minimum and maximum duration of bypass under each alternative.
    - A recommendation as to the preferred alternative for conducting the bypass.
    - The projected date of bypass initiation.
    - A statement of compliance with SEPA.
    - Details of the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

- b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process. The project-specific engineering report as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.
- c. Ecology will determine if the Permittee has met the conditions of special condition S4.F.2 a and b and consider the following prior to issuing a determination letter, an administrative order, or a permit modification as appropriate for an anticipated bypass:
  - If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.
  - If the bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
  - If feasible alternatives to the bypass exist, such as:
    - The use of auxiliary treatment facilities.
    - Retention of untreated wastes.
    - Stopping production.
    - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance.
    - Transport of untreated wastes to another treatment facility.

**S4.C. Irrigation land application best management practices**

The Permittee must:

1. Operate the spray field system to protect the existing and future beneficial uses of the groundwater, and not cause a violation of the groundwater standards.
2. 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.
3. Use recognized good practices, and all available and reasonable procedures to control odors from the land application system.

4. Manage storm water to divert it away from the land application area.
5. Implement measures to reduce odors to a reasonable minimum when notified by Ecology.
6. Not apply wastewater to the irrigation lands in quantities that:
  - a. Significantly reduce or destroy the long-term infiltration rate of the soil.
  - b. Would cause long-term anaerobic conditions in the soil.
  - c. Would cause ponding of wastewater and produce objectionable odors or support insects or vectors.
  - d. 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.
7. 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.
8. Immediately inform Ecology in writing of any proposed changes to existing irrigation agreements.
9. Maintain a viable and healthy cover crop on all fields that receive wastewater.
10. Discontinue operation during periods of heavy or prolonged rainfall to prevent ground saturation and runoff.
11. Use supplemental water or precipitation to meet the leaching requirement to control soil salinity.

#### **S4.D. Operational best management practices**

##### *Maintenance of hoses, soil chutes, and piping*

The Permittee must:

Immediately replace or repair leaking connections, valves, pipes, and hoses, carrying either water or wastewater.

##### *Chemical storage*

The Permittee must store solid chemicals, chemical solutions, paints, oils, solvents, acids, caustic solutions, and waste materials, in a manner which will prevent the inadvertent entry of these materials into waters of the state, including ground water. Storage methods must prevent spills due to overfilling, tipping, or rupture.

In addition, the Permittee must use the following practices:

1. Store all liquid products on durable impervious surfaces and within bermed containment capable of containing 110% of the largest single container in the storage area. Segregate and secure incompatible or reactive materials stored in separate containment areas to prevent inadvertent mixing and reaction of spilled chemicals.

2. Store waste liquids and solids under cover to prevent mixing with rain using tarpaulins, roofed structures, container lids, etc.

#### *Pollutant Source Control Guidelines*

1. Water-conserving devices (e.g. pressure washers, trigger-handled spray nozzles, stainless steel tanks, and smooth floors) should be used to minimize wastewater generation.
2. Use of cleaning chemicals should be minimized. Less toxic ozonated wash water and oxygen-based cleaners are preferred.
3. Residual solids should be disposed as solid waste and excluded from the spray field system.

#### *Prohibitions*

1. The discharge of any wastewater to surface waters is prohibited.
2. Maintain a 100-foot minimum buffer between the wastewater application area and any on-site septic system drain field.
3. Do not discharge concentrated wastewater, disinfectants, or spilled chemicals to land application system or state waters.
4. Keep all dumpsters under cover or fit with a lid that must remain closed when not in use.
5. Immediately clean up spills and leaks (e.g., using absorbents, vacuuming) to prevent the discharge of pollutants.
6. Minimize the exposure and material storage areas (including loading and unloading, storage, disposal,) to rain, snow, snowmelt, and runoff by either locating these industrial materials and activities inside or protecting them with storm resistant coverings.
7. Do not steam clean, wash, and/or pressure wash vehicles or equipment, at the facility.

#### *Training*

The Permittee must conduct annual training for employees who work ice making, cooling/cooler packing, or vegetable washing. At a minimum, the training shall include:

1. Spill response procedures, good housekeeping, maintenance requirements, and material management practices.
2. A log of the dates on which specific employees received training.



*Spill Prevention / Best Management Practices*

The Permittee must:

1. Store solid chemicals, chemical solutions, cleaners, disinfectants, paints, oils, solvents, acids, caustic solutions and waste materials, including used batteries, in a manner which will prevent the inadvertent entry of these materials into waters of the state and groundwater. Storage must be in a manner that will prevent spillage by overfilling, tipping or rupture.
2. Store all liquid products on durable impervious surfaces and within appropriate secondary containment.
3. Store and dispense chemicals only in roofed and contained areas to eliminate potential spills to waters of the state or contamination of storm water runoff.
4. Locate any tanks containing chemical solutions in a diked, or no-outlet area adequate to prevent chemical loss to waters of the state or the sanitary sewer.
5. Contain all quenching, hydraulic, machining, and lubricating oils to prevent spills or loss to waters of the state.
6. Store waste liquids under cover, such as tarpaulins or roofed structures, or in a closed vessel.
7. Segregate and securely store incompatible or reactive materials in separate containment areas sufficient to prevent the mixing of the incompatible chemicals.
8. Dispose of concentrated waste or spilled chemicals at a facility approved by Ecology or appropriate county health department. These materials shall not be discharged to any storm sewer, sanitary sewer, or state water.
9. Not discharge concentrated organic solvents to the storm sewer system, sanitary sewer system, or industrial wastewater system.
10. Close any spill control valves to prevent the entry of chemicals to the sanitary sewer, storm sewer, or industrial wastewater system, in the event that a spill should occur within the process area.
11. Use drip pans or equivalent containment measures during all material transfer operations.
12. Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas).

**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 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.

**S6. Application for permit renewal or modification for facility changes**

The Permittee must submit an application for renewal of this permit by April 30, 2025.

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. Non-routine and unanticipated wastewater**

**S7.A. Notification requirements**

Beginning on the effective date of this permit, the Permittee is authorized to discharge non-routine wastewater or unanticipated wastewater, and therefore not listed on the permit application, on a case-by-case basis if approved by Ecology. Prior to any such discharge, the Permittee must contact Ecology, and at a minimum, provide the following information:

1. The proposed discharge location;
2. The nature of the activity that will generate the discharge;
3. Any alternatives to the discharge, such as reuse, storage, or recycling of the water;
4. The total volume of water it expects to discharge;
5. The results of the chemical analysis of the water;
6. The date of proposed discharge; and
7. The expected rate of discharge discharged, in gallons per minute.

**S7.B. Chemical analysis**

The Permittee must analyze the water for constituents limited for the discharge and report them as required by subpart A.5 above. The analysis must also include any parameter deemed necessary by Ecology. All discharges must comply with the effluent limits as established in Special Condition S1 of this permit, groundwater quality standards, and any other limits imposed by Ecology.

**S7.C. Flow limitation**

The Permittee must limit the discharge rate, as referenced in subpart A.7 above, so it will not cause erosion or structural damage.

**S7.D. Approval requirements**

The discharge cannot proceed until Ecology has reviewed the information provided and has authorized the discharge by letter to the Permittee or by an Administrative Order.

**S8. Stormwater discharges**

If the Permittee discharges stormwater exposed to industrial activities to surface waters or to a storm sewer system that drains to surface water, the Permittee must apply for coverage under the NPDES Industrial Stormwater General Permit (ISGP).

Facilities are eligible for a conditional no exposure (CNE) exemption if there is “no exposure” of industrial materials and activities to rain, snow, snow melt, and/or runoff. To obtain a CNE exemption, the Permittee must submit an online No Exposure Certification Form to Ecology.

Information about the permit and CNE and application forms are available at <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Industrial-stormwater-permit>.

Currently activities at this facility do not fall under the definition of "industrial activities" and is exempt from needing coverage under either the ISGP or a CNE. Should operations change significantly or if Ecology inspectors deem it appropriate ISGP or CNE coverage may be necessary in the future.

**S9. Groundwater monitoring wells**

The Permittee must:

1. Install monitoring wells in accordance with the approved hydrogeologic study.
2. Meet the requirements of Chapters 173-160 and 173-162 WAC during well construction.
3. Report to Ecology the tag numbers, latitude, and longitude (NAD83/WGS84 datum), and top-of-casing elevations (NAVD88 datum) of each monitoring well.
4. Complete well installation and commence sampling by January 1, 2023.

**S10. Groundwater quality evaluation (hydrogeologic study)**

The Permittee must evaluate the impacts of its activities on groundwater quality by completing the elements below to include: a scope of work for a groundwater quality evaluation study, a groundwater quality evaluation study, a report of study results, installation of a groundwater monitoring network, and ongoing monitoring.

1. By January 1, 2021, the Permittee must submit a scope of work to Ecology for a groundwater quality evaluation study at the wastewater application site, in

accordance with WAC 173-200-080. The scope of work must conform to Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems (Ecology, 1993).

2. Upon approval of the scope of work by Ecology, the Permittee must conduct a study to determine site specific hydrogeologic conditions, well siting, quality control protocols, a sampling plan and sampling protocols. The Permittee must submit a report of the results within 180 days of approval of the scope of work.
3. Within one-hundred twenty (120) days after review and approval of the report by Ecology, the Permittee must begin construction of the groundwater monitoring network. The Permittee must construct wells in accordance with Chapter 173-160 WAC. After completion of the installation of the groundwater monitoring network, the Permittee must notify Ecology and begin monitoring according to S2.

### **S11. Annual Irrigation Report**

The Permittee must submit an annual Summary Irrigation Report annually by March 1st 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 Summary Irrigation Report 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.

#### **S11.A. Annual summary of farm operations for previous year**

The annual summary must include:

1. For each crop grown, the total acreage and quantity harvested.
2. Calculated balances for nutrients, salts, TDS, and BOD<sub>5</sub>. The calculations must include crop consumptive use, wastewater loadings of nutrients, salts, TDS, and BOD<sub>5</sub>, 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, fixed dissolved solids, (other parameters) loads, and the leaching fractions for each field to the estimated values presented in the previous year's Irrigation and Crop 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 detailed list of changes or improvements in the management of the land treatments practices to comply with agronomic rates and leaching requirements.

## REFERENCES

- Ecology. (1993). *Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems*. Retrieved from <https://apps.ecology.wa.gov/publications/documents/9336.pdf>
- Ecology. (2004). *Information Manual for Treatment Plant Operators, Publication 04-10-020*. Retrieved from <https://apps.ecology.wa.gov/publications/SummaryPages/0410020.html>
- Ecology. (2005). *Implementation Guidance for the Ground Water Quality Standards*. Retrieved from <https://apps.ecology.wa.gov/publications/SummaryPages/9602.html>
- Ecology. (2023). *Criteria for Sewage Works Design, Publication 98-37 (Orange Book)*. Retrieved from <https://apps.ecology.wa.gov/publications/SummaryPages/9837.html>
- Miller, R. O., Gavlak, R., & Horneck, D. (2013). *Western States Laboratory Plant, Soil and Water Analysis Manual, Soil, Plant and Water Reference Methods for the Western Region*. Retrieved from <https://www.naptprogram.org/files/napt/publications/method-papers/western-states-methods-manual-2013.pdf>

## GENERAL CONDITIONS

### G1. Signatory requirements

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

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

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

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

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

## **G2. Right of 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, 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 the discharge of more of any pollutant, a new pollutant, or more flow than specifically authorized under this permit.

The Permittee must submit a State Waste Discharge permit application, along with required plans and reports. Required plans and reports may include an Engineering Report, Plans and Specifications, and an Operations and Maintenance manual, (see Chapter 173-240 WAC). The Permittee must continue to comply with the existing permit until it is modified or reissued. 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**

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 conditions 1-3 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 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 such violation is a separate and distinct offense, and in case of a continuing violation, each day's continuance is deemed to be 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**

The Permittee must use the specified analytical methods, detection levels (DLs) <sup>1</sup> and quantitation levels (QLs) <sup>2</sup> 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 level (MDL) and a quantitation level (QL) to Ecology with appropriate laboratory documentation when the detection levels are too high to provide results near or below criteria (or applicable permit limits).

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

**Appendix A Table 1 – Conventional pollutants**

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

**Appendix A Table 2 - Nonconventional pollutants**

Pollutant	CAS number (if available)	Recommended analytical protocol	Detection level (DL) <sup>1</sup> µg/L unless specified	Quantitation level (QL) <sup>2</sup> µg/L unless specified
Alkalinity, Total		SM2320-B		5 mg/L as CaCO <sub>3</sub>
Ammonia, Total (as N)		SM4500-NH <sub>3</sub> -B and C/D/E/G/H		20
Calcium, Total		EPA 200.7		
Chloride		SM4500-Cl B/C/D/E and SM4110 B		Sample and limit dependent
Dissolved oxygen		SM4500-OC/OG		0.2 mg/L
Flow		Calibrated device		
Hardness, Total		SM2340B		200 as CaCO <sub>3</sub>
Iron, Total	7439-89-6	200.7	12.5	50
Magnesium, Total	7439-95-4	200.7	10	50
Manganese, Total	7439-96-5	200.8	0.1	0.5
Nitrate + Nitrite Nitrogen (as N)		SM4500-NO <sub>3</sub> - E/F/H		100
Nitrogen, Total Kjeldahl (as N)		SM4500-N <sub>org</sub> B/C and SM4500NH <sub>3</sub> - B/C/D/EF/G/H		300
NWTPH Dx <sup>3</sup>		Ecology NWTPH Dx	250	250

Pollutant	CAS number (if available)	Recommended analytical protocol	Detection level (DL) <sup>1</sup> µg/L unless specified	Quantitation level (QL) <sup>2</sup> µg/L unless specified
Phosphorus, Total (as P)		SM 4500 PB followed by SM4500-PE/PF	3	10
Soluble Reactive Phosphorus (as P)		SM4500-P E/F/G	3	10
Potassium		EPA 200.7		
Sodium		EPA 200.7		
Sulfate (as mg/L SO <sub>4</sub> )		SM4110-B		0.2 mg/L
Temperature		Analog recorder or micro-recording devices (thermistors)		0.2°C
Total Coliform		SM 9221B SM 9222B	N/A	Specified in method; sample aliquot dependent
Total Dissolved solids		SM2540 C		20 mg/L

**Appendix A Table 3 - Priority pollutants: Metals, chromium (hex), cyanide & total phenols**

Priority pollutants	PP #	CAS number (if available)	Recommended analytical protocol	Detection level (DL) <sup>1</sup> µg/L unless specified	Quantitation level (QL) <sup>2</sup> µg/L unless specified
Arsenic, Total	115	7440-38-2	200.8	0.1	0.5

**Appendix A Table 4 - Pesticides and PCBs**

Priority pollutants	PP #	CAS number (if available)	Recommended analytical protocol	Detection level (DL) <sup>1</sup> µg/L unless specified	Quantitation level (QL) <sup>2</sup> µg/L unless specified
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
delta-BHC	105	319-86-8	608.3	9.0 ng/L	27 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
Toxaphene	113	8001-35-2	608.3	240 ng/L	720 ng/L

## Footnotes

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

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

<sup>3</sup> Northwest Total Petroleum Hydrocarbons Diesel Extended Range OR NWTPH Dx – Analytical Methods for Petroleum Hydrocarbons <https://apps.ecology.wa.gov/publications/documents/97602.pdf>