



Oregon

Tina Kotek, Governor

Department of Environmental Quality
Northwest Region Portland Office/Water Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232
(503) 229-5696
FAX (503) 229-6124
TTY 711

July 18, 2024

Richard Nystrom
Cloverdale Sanitary District
P.O. Box 157
Cloverdale, OR 97112-0157

Re: NPDES permit Applicant Review Period
Comments Due: August 1, 2024, 5 p.m.
File no. 17318
Permit no. 102139
EPA no. OR0027294
Facility: Cloverdale STP, 34540 Highway 101 S., Cloverdale
Tillamook County

Enclosed please find the applicant review drafts for your proposed National Pollutant Discharge Elimination System permit including a copy of the public notice, permit, and fact sheet. Please review these documents and submit your comments to:

Trinh Hansen, Water Quality Permit Coordinator
DEQ Western Region
4026 Fairview Industrial Way Dr. SE, Salem, OR 97302
trinh.hansen@deq.oregon.gov

Your comments **must be received by 5 p.m. on August 1, 2024**. DEQ will review your comments and address your concerns to the degree possible; however, we will not prepare a formal written response at this stage. DEQ will provide for additional applicant review if the permit is significantly modified in response to your comments. If there are no significant changes, DEQ will make the permit documents available for interested parties and hold a public hearing. Please be aware that Cloverdale Sanitary District may provide additional comment on the permit during this time. When the public participation period has ended, DEQ will take final action on your application.

Please contact me at 503-378-5055 with any questions about permitting processing. If you have any questions about your current permit, please contact Mike Pinney at 503-229-5310 or mike.pinney@deq.oregon.gov.

Sincerely,

Trinh Hansen
Water Quality Permit Coordinator
Western Region, Salem Office

cc: Source File, Portland Office, DEQ
Mike Pinney, Portland, DEQ
Jeremy Alexander, Cloverdale Sanitary District
ORMS



PUBLIC NOTICE

Date posted: X/X/XX

DEQ Requests Comments on Proposed Cloverdale Sanitary District's Water Quality Permit Renewal

HOW TO PROVIDE PUBLIC COMMENT

Facility name: Cloverdale Sanitary District

Permit type: NPDES, Domestic – minor

Comments due by: [Date] at 5 p.m. [Must be a workday, not a holiday and appropriate number of days after the public notice is issued, according to permit action category.]

Send written comments to:

Trinh Hansen, Oregon DEQ,
Water Quality Permit Coordinator

By mail:

4026 Fairview Industrial Drive SE, Salem, OR 97302

By email: trinh.hansen@deq.oregon.gov

The Oregon Department of Environmental Quality invites the public to provide written comments on the conditions of Cloverdale Sanitary District's proposed water quality permit, known officially as a National Pollutant Discharge Elimination System permit.

Summary

Subject to public review and comment, DEQ intends to renew the proposed water quality permit, which allows the Cloverdale Sanitary District to discharge wastewater to the Nestucca River in Cloverdale.

About the facility

The Cloverdale Sanitary District has applied for a water quality permit renewal for the Cloverdale Sanitary Treatment Plant located at 34540 Highway 101 S in Cloverdale. DEQ last issued this permit on Oct. 24, 2019. The facility collects and treats domestic wastewater before discharging to the Nestucca River, year-round, in accordance with NPDES Permit number 102139. The permit limits the discharge of five-day biological oxygen demand, total suspended solids, pH, bacteria (*E. coli*), temperature, and total residual chlorine.

The facility serves the town of Cloverdale, with a service population of 240 individuals and no industrial contributions. The Nestucca High School contributes a significant portion of influent to the treatment plant from an estimated commuter population of 315 staff and students who do not reside in Cloverdale.

The facility discharges to the Nestucca River in Cloverdale. The Nestucca River is listed as impaired (Category 4 or 5) for several pollutants according to the most recent U.S. Environmental Protection Agency-approved integrated report for Oregon. The proposed permit reflects effluent limits established through reasonable potential analysis, best available technology or the North Coast Subbasin Nestucca Bay Watershed Total Maximum Daily Load, or TMDL, for temperature and bacteria.

The most recent DEQ inspection of the Cloverdale Sanitation Treatment Plant was on May 15, 2024. DEQ did not identify violations during this inspection. Cloverdale STP has had no water quality violations in the past permit term. The facility is currently operating in full compliance.

Translation or other formats

[Español](#) | [한국어](#) | [繁體中文](#) | [Русский](#) | [Tiếng Việt](#) | [العربية](#)

800-452-4011 | TTY: 711 | deqinfo@deq.oregon.gov

The facility holds no other permits from DEQ.

What types of pollutants does the permit regulate?

This permit sets conditions for how the facility deals with the following pollutants: five-day biochemical oxygen demand, total suspended solids, pH, bacteria (*E. coli*), temperature, and total residual chlorine.

Would the draft permit change the amount of pollution the facility is allowed to release?

Yes. The draft permit would reduce the average monthly limit for total residual chlorine.

Pollutant	Change
Total residual chlorine	Average Monthly Limit decreased

How did DEQ determine permit requirements?

DEQ evaluates types and amounts of pollutants and the water quality of the surface water or groundwater where the pollutants are proposed to be discharged and determines permit requirements to ensure the proposed discharges will meet applicable statutes, rules, regulations, and effluent guidelines of Oregon and the Clean Water Act.

For this proposed permit action, DEQ evaluated the Cloverdale Sanitation Treatment Plant's water quality permit renewal application, the Nestucca Bay TMDL, discharge monitoring reports and facility design reports. In addition, DEQ evaluated water quality data from a DEQ monitoring station located on the Nestucca River in Cloverdale. These materials may be viewed in person at the DEQ Northwest Region offices located at: 700 NE Multnomah Street, Suite 600 in Portland.

DEQ relied solely on these documents and made no other discretionary decisions for the permit action.

How does DEQ monitor compliance with the permit requirements?

This permit will require the facility to monitor pollutants discharged using approved monitoring practices and standards. DEQ reviews the facility's discharge monitoring reports to check for compliance with permit limits.

What happens next?

Submit comments by sending an email or using mail service addressed to the permit coordinator listed in the "how to provide public comment" box above.

DEQ will hold a public hearing if it receives written requests for a hearing during the public comment period from at least 10 people or from an organization representing at least 10 people.

DEQ will consider and respond to all comments received and may modify the proposed permit based on comments.

For more information

Find more information by reviewing draft permit documents attached to this notice or contact Trinh Hansen at 503-804-6594 or Trinh.Hansen@deq.oregon.gov with questions or to view documents in person at a DEQ office.

Translation or other formats

[Español](#) | [한국어](#) | [繁體中文](#) | [Русский](#) | [Tiếng Việt](#) | [العربية](#)
800-452-4011 | TTY: 711 | deqinfo@deq.oregon.gov

Non-discrimination statement

DEQ does not discriminate on the basis of race, color, national origin, disability, age or sex in administration of its programs or activities. Visit DEQ's [Civil Rights and Environmental Justice page](#).

Translation or other formats

[Español](#) | [한국어](#) | [繁體中文](#) | [Русский](#) | [Tiếng Việt](#) | [العربية](#)
800-452-4011 | TTY: 711 | deqinfo@deq.oregon.gov



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM WASTE DISCHARGE PERMIT

Oregon Department of Environmental Quality
Northwest Region – City Office
700 NE Multnomah St., Suite 600
Portland, OR 97232
Telephone: 503-229-5263

Issued pursuant to ORS 468B.050 and the federal Clean Water Act

ISSUED TO:

Cloverdale Sanitary District
PO Box 157
Cloverdale, OR 97112

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Outfall Number	Outfall Location
Treated wastewater	001	45.205958, -123.893108

FACILITY LOCATION:

Cloverdale STP
34540 Highway 101 South
Cloverdale, OR 97112
County: Tillamook
EPA Permit Type: Minor

RECEIVING STREAM INFORMATION:

Receiving stream/NHD name: Nestucca River
USGS 12-Digit HUC: 171002030210
OWRD Administrative Basin: North Coast
NHD Reach Code & % along reach: 17100203000035 – 80.8%
ODEQ LLID & RM: 1239555451826 – RM 7.0
Integrated Report AU ID: OR_EB_1710020302_01_107216

Issued in response to Application No. 948138 received March 26, 2024. This permit is issued based on the land use findings in the permit record.

DRAFT

Tiffany Yelton-Bram, WQ Manager
Northwest Region

DRAFT

Issuance Date

DRAFT

Effective Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to: 1) operate a wastewater collection, treatment, control and disposal system; and 2) discharge treated wastewater to waters of the state only from the authorized discharge point or points in Schedule A in conformance with the requirements, limits, and conditions set forth in this permit.

Unless specifically authorized by this permit, by another NPDES or Water Pollution Control Facility permit, or by Oregon statute or administrative rule, any other direct or indirect discharge of pollutants to waters of the state is prohibited.

TABLE OF CONTENTS

SCHEDULE A: WASTE DISCHARGE LIMITS..... 3

1. Outfall 001 – Permit Limits 3

2. Regulatory Mixing Zone 3

3. Biosolids..... 3

SCHEDULE B: MINIMUM MONITORING AND REPORTING REQUIREMENTS..... 5

1. Reporting Requirements..... 5

2. Monitoring and Reporting Protocols 6

3. Monitoring and Reporting Requirements 9

4. Biosolids Monitoring Requirements 12

SCHEDULE D: SPECIAL CONDITIONS..... 15

1. Inflow and Infiltration 15

2. Emergency Response and Public Notification Plan 15

3. Exempt Wastewater Reuse at the Treatment System 15

4. Wastewater Solids Annual Report 15

5. Biosolids Management Plan 16

6. Wastewater Solids Transfers 17

7. Hauled Waste Control Plan 17

8. Operator Certification 17

9. Industrial User Survey..... 18

10. Outfall Inspection..... 19

11. Boat Ramp Signage..... 19

SCHEDULE F: NPDES GENERAL CONDITIONS..... 21

Note: Schedule (Compliance) and E (Pretreatment Activities) are not part of this permit.

LIST OF TABLES

Table A1: Permit Limits..... 3

Table A2: Biosolids Limits 4

Table B1: Reporting Requirements and Due Dates 5

Table B2: Influent Monitoring Requirements 9

Table B3: Effluent Monitoring Requirements 10

Table B4: Biosolids Monitoring..... 12

Table B5: Biosolids Minimum Monitoring Frequency 13

SCHEDULE A: WASTE DISCHARGE LIMITS

1. Outfall 001 – Permit Limits

During the term of this permit, the permittee must comply with the limits in the following table:

Table A1: Permit Limits

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
BOD ₅	mg/L	10	15	-
	lb/day	3.3	5.0	6.6
	% removal	85	-	-
TSS	mg/L	10	15	-
	lb/day	3.3	5.0	6.6
	% removal	85	-	-
Chlorine, Total Residual	mg/L	0.09	-	0.25
pH	SU	Instantaneous limit between a daily minimum of 6.0 and a daily maximum of 9.0		
<i>E. coli</i> (See note a.)	#/100 mL	Must not exceed a monthly geometric mean of 57, no single sample may exceed 182		
Temperature	°C	25 °C as a 7-day rolling average of the daily maximums		
Note:				
a. If a single sample exceeds 182 organisms/100 mL, the permittee may take at least 5 consecutive re-samples at 4-hour intervals beginning within 28 hours after the original sample was taken. A geometric mean of the 5 re-samples that is less than or equal to 57 <i>E. coli</i> organisms/100 mL demonstrates compliance with the limit.				

2. Regulatory Mixing Zone

Pursuant to OAR 340-041-0053, the permittee is granted a regulatory mixing zone as described below:

The Regulatory Mixing Zone (RMZ) is that portion of the Nestucca River contained within a band extending out fifty (50) feet from the south bank of the river and extending from a point fifty (50) feet upstream of the midpoint of the diffuser to a point fifty (50) feet downstream of the midpoint of the diffuser. The Zone of Immediate Dilution (ZID) is that portion of the allowable mixing zone that is within five (5) feet of the point of discharge.

3. Biosolids

The permittee may land apply biosolids or provide biosolids for sale or distribution, subject to the following conditions:

- Biosolids Management Plan - The permittee must manage biosolids in accordance with its DEQ-approved Biosolids Management Plan and Land Application Plan (see Schedule D).
- Agronomic Rates for Nutrient Loading - The permittee must apply biosolids at or below the agronomic rates approved by DEQ to minimize potential groundwater degradation. At the time of sale or distribution of exceptional quality biosolids, the origin must be identified and biosolids analyses must be available to appliers or users of the biosolids.

- c. Land Application Site Authorization - The permittee must obtain written site authorization from DEQ for each land application site prior to land application (see Schedule D) and follow the site-specific management conditions in the DEQ-issued site authorization letter. This requirement does not apply for exceptional quality biosolids, which may be land applied as any other fertilizer or soil amendment.
- d. Pathogen and Vector Attraction Reduction - Prior to application, the permittee must ensure that biosolids meet one of the pathogen reduction standards under 40 CFR 503.32 and one of the vector attraction reduction standards under 40 CFR 503.33. For exceptional quality biosolids, the biosolids must one of the Class A pathogen reduction requirements in 40 CFR 503.32(a) and one of the vector attraction reduction requirements in 40 CFR 503.33(b)(1) through (b)(8) prior to land application.
- e. Pollutants - The permittee must not apply biosolids containing pollutants in excess of the ceiling concentrations shown in Table A2. The permittee may apply biosolids containing pollutants in excess of the pollutant concentrations. However, the total quantity of these pollutant(s) cannot exceed the cumulative pollutant loading rates in Table A2. For biosolids to be managed as exceptional quality biosolids, the biosolids cannot exceed any of the ceiling concentration limits or the pollutant concentration limits in Table A2.
- f. Approval to Apply Cumulative Pollutant Loading Rates – If the permittee’s biosolids are subject to the cumulative pollutant loading rates as described in Section (e) above, the permittee must obtain specific approval from DEQ to apply these biosolids in accordance with their Biosolids Management Plan and Land Application Site Authorization (see Schedule D).

Table A2: Biosolids Limits

Pollutant (See note a.)	Ceiling Concentration Limits (mg/kg)	Pollutant Concentration Limits Monthly Average (mg/kg)	Cumulative Pollutant Loading Rates (kg/ha)
Arsenic	75	41	41
Cadmium	85	39	39
Copper	4300	1500	1500
Lead	840	300	300
Mercury	57	17	17
Molybdenum	75	–	–
Nickel	420	420	420
Selenium	100	100	100
Zinc	7500	2800	2800
Note:			
a. Biosolids pollutant limits are described in 40 CFR 503.13, which uses the terms <i>ceiling concentrations</i> , <i>pollutant concentrations</i> , and <i>cumulative pollutant loading rates</i> .			

SCHEDULE B: MINIMUM MONITORING AND REPORTING REQUIREMENTS

1. Reporting Requirements

The permittee must submit to DEQ monitoring results and reports as listed below.

Table B1: Reporting Requirements and Due Dates

Reporting Requirement	Frequency	Due Date (See note a.)	Report Form (See note b.)	Submit To:
Tables B2: Influent Monitoring, and B3: Effluent Monitoring	Monthly	By the 15 th of the following month	Specified in Schedule B. Section 2 of this permit	Electronic reporting as directed by DEQ
Inflow and infiltration report (see Schedule D)	Annually	February 15	Electronic copy in a DEQ-approved format	Attached via electronic reporting as directed by DEQ
Wastewater solids annual report (see Schedule D)	Annually	By February 19 of the following year	Electronic copy in a DEQ-approved format	Attached via electronic reporting as directed by DEQ Electronic copy to DEQ Biosolids Program Coordinator
Biosolids annual report (see Schedule D) (See note c.)	Annually	By February 19 of the following year	Electronic copy in a DEQ-approved format	Attached via electronic reporting as directed by DEQ DEQ Biosolids Program Coordinator
Industrial User Survey (see Schedule D)	Once per permit cycle	Submit by no later than 24 months after permit effective date	1 electronic copy and 1 hard copy in a DEQ approved format	Attached via electronic reporting as directed by DEQ
Outfall Inspection Report (see Schedule D)	Once per permit cycle	Submit by XX/15/2027	Electronic copy in a DEQ-approved format	Attached via electronic reporting as directed by DEQ
Notes: a. For submittals that are provided to DEQ by mail, the postmarked date must not be later than the due date. b. All reporting requirements are to be submitted in a DEQ-approved format, unless otherwise specified in writing. c. Biosolids annual report only required if the permittee produces and distributes biosolids under a DEQ-approved biosolids management plan.				

2. Monitoring and Reporting Protocols

a. Electronic Submissions

The permittee must submit to DEQ the results of monitoring indicated in Schedule B in an electronic format as specified below.

- i. The permittee must submit monitoring results required by this permit via DEQ-approved web-based Discharge Monitoring Report (DMR) forms to DEQ via electronic reporting. Any data used to calculate summary statistics must be submitted as a separate attachment approved by DEQ via electronic reporting.
- ii. The reporting period is the calendar month.
- iii. The permittee must submit monitoring data and other information required by this permit for all compliance points by the 15th day of the month following the reporting period unless specified otherwise in this permit or as specified in writing by DEQ.

b. Test Methods

The permittee must conduct monitoring according to test procedures in 40 CFR 136 and 40 CFR 503 for biosolids or other approved procedures as per Schedule F.

c. Detection and Quantitation Limits

- i. Detection Level (DL) – The DL is defined as the minimum measured concentration of a substance that can be distinguished from method blank results with 99% confidence. The DL is derived using the procedure in 40 CFR 136 Appendix B and evaluated for reasonableness relative to method blank concentrations to ensure results reported above the DL are not a result of routine background contamination. The DL is also known as the Method Detection Limit (MDL) or Limit of Detection (LOD).
- ii. Quantitation Limits (QLs) – The QL is the minimum level, concentration or quantity of a target analyte that can be reported with a specified degree of confidence. It is the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration for the analyte. It is normally equivalent to the concentration of the lowest calibration standard adjusted for sample weights, volumes, preparation and cleanup procedures employed. The QL as reported by a laboratory is also sometimes referred to as the Method Reporting Limit (MRL) or Limit of Quantitation (LOQ).

d. Sufficient Sensitivity of Quantitation Limits

- i. The Laboratory QLs (adjusted for any dilutions) for analyses performed to demonstrate compliance with permit limits or as part of effluent characterization, must meet at least one of the requirements below:
 - (A) The QL is at or below the level of the water quality criterion for the measured parameter.
 - (B) The QL is above the water quality criterion but the amount of the pollutant in a facility's discharge is high enough that the method detects and quantifies the level of the parameter in the discharge.
 - (C) The QL has the lowest sensitivity of the analytical methods procedure specified in 40 CFR 136.
 - (D) The QL is at or below those defined in Oregon DEQ list of quantitation limits posted online at [DEQ permitting website](#).

- e. Quality Assurance and Quality Control
- i. Quality Assurance Plan – The permittee must develop and implement a written Quality Assurance Plan that details the facility sampling procedures, equipment calibration and maintenance, analytical methods, quality control activities and laboratory data handling and reporting. The QA/QC program must conform to the requirements of 40 CFR 136.7.
 - ii. If QA/QC requirements are not met for any analysis, the permittee must re-analyze the sample. If the sample cannot be re-analyzed, the permittee must re-sample and analyze at the earliest opportunity. If the permittee is unable to collect a sample that meets QA/QC requirements, then the permittee must include the result in the discharge monitoring report (DMR) along with a notation (data qualifier). In addition, the permittee must explain how the sample does not meet QA/QC requirements. With the exception of BOD₅/CBOD₅, the permittee may not use the result that failed the QA/QC requirements in any calculation required by the permit unless authorized in writing by DEQ. For BOD₅/CBOD₅, the permittee may not use the result that failed the QA/QC requirement in any calculation except as follows:
 - (A) When the glucose-glutamic acid, dilution water, and/or seed control check are not met, the values are reported with the “e” (estimate) data qualifier. The estimated values are not used in the calculations.
 - (B) When the minimum DO depletion or the minimum residual DO is not met, the values are reported with the “<” or “>” data qualifiers as appropriate. The data must be used in the calculations. It is not acceptable to report “non-detect” on the discharge monitoring report. The data qualifiers carry to the summary statistic. For example, when calculating the loading, the data qualifiers are added to the value.
 - iii. Flow measurement, field measurement, and continuous monitoring devices - The permittee must:
 - (A) Establish verification and calibration frequency for each device or instrument in the quality assurance plan that conforms to the frequencies recommended by the manufacturer.
 - (B) Verify at least once per year that flow-monitoring devices are functioning properly according to manufacturer’s recommendation. Calibrate as needed according to manufacturer’s recommendations.
 - (C) Verify at least weekly that the continuous monitoring instruments are functioning properly according to manufacturer’s recommendation unless the permittee demonstrates a longer period is sufficient and such longer period is approved by DEQ in writing.
- f. Reporting Sample Results
- i. The permittee must report the laboratory DL and QL as defined above for each analyte, with the following exceptions: pH, temperature, BOD, CBOD, TSS, Oil & Grease, hardness, alkalinity, bacteriological analytes, and nitrate-nitrite. For temperature and pH, neither the QL nor the DL need to be reported. For the other parameters listed above, the permittee is only required to report the QL and only when the result is ND.
 - ii. The permittee must report the same number of significant digits as the permit limit for a given parameter.

- iii. (For Discharge Monitoring Reports) If a sample result is above the DL but below the QL, the permittee must report the result as the DL preceded by DEQ's data code "E". For example, if the DL is 1.0 µg/l, the QL is 3.0 µg/L and the result is estimated to be between the DL and QL, the permittee must report "E1.0 µg/L" on the DMR. This requirement does not apply in the case of parameters for which the DL does not have to be reported.
- iv. (For Discharge Monitoring Reports) If the sample result is below the DL, the permittee must report the result as less than the specified DL. For example, if the DL is 1.0 µg/L and the result is ND, report "<1.0" on the discharge monitoring report (DMR). This requirement does not apply in the case of parameters for which the DL does not have to be reported.

g. Calculating and Reporting Mass Loads

The permittee must calculate mass loads on each day the parameter is monitored using the following equation:

Example calculation: Flow (in MGD) X Concentration (in mg/L) X 8.34 = Pounds per day

- i. Mass load limits all have two significant figures unless otherwise noted.
- ii. When concentration data are below the DL: To calculate the mass load from this result, use the DL. Report the mass load as less than the calculated mass load. For example, if flow is 2 MGD and the reported sample result is <1.0 µg/L, report "<0.017 lb/day" for mass load on the DMR (1.0 µg/L x 2 MGD x conversion factor = 0.017 lb/day).

3. Monitoring and Reporting Requirements

- a. The permittee must monitor influent from the above-ground four-inch pipe into the treatment plant. The permittee must report the results in accordance with Table B1 and the table below.

Table B2: Influent Monitoring Requirements

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type / Required Action (See note a.)	Report Statistic (See note b.)
BOD ₅ (00310)	mg/L	Year-round	2/month	24-hour composite	1. Monthly Average
TSS (00530)	mg/L	Year-round	2/month	24-hour composite	1. Monthly Average
pH (00400)	SU	Year-round	3/week	Grab	1. Monthly Maximum 2. Monthly Minimum
Notes: a. In the event of equipment failure or loss, the permittee must notify DEQ and deploy new equipment to minimize interruption of data collection. If new equipment cannot be immediately deployed, the permittee must perform grab measurements. b. When submitting DMRs electronically, the permittee must submit all data used to determine summary statistics in a DEQ-approved format as a spreadsheet via electronic reporting unless otherwise directed by DEQ.					

- b. The permittee must monitor effluent for Outfall 001 at the effluent weir downstream from the effluent dechlorination chamber, and report results in accordance with Table B1 and the table below:

Table B3: Effluent Monitoring Requirements

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a.)	Report Statistic (See note b.)
Flow (50050)	MGD	Year-round	Daily	Metered	1. Monthly Average 2. Daily Maximum
BOD ₅ (00310)	mg/L	Year-round	2/month	24-hour composite	1. Monthly Average 2. Maximum Weekly Average
BOD ₅ (00310)	lb/day	Year-round	2/month	Calculation	1. Daily Maximum 2. Monthly Average 3. Maximum Weekly Average
BOD ₅ percent removal (81010) (See note c.)	%	Year-round	1/month	Calculation based on monthly average BOD ₅ concentration values	Monthly Average
TSS (00530)	mg/L	Year-round	2/month	24-hour composite	1. Monthly Average 2. Maximum Weekly Average
TSS (00530)	lb/day	Year-round	2/month	Calculation	1. Daily Maximum 2. Monthly Average 3. Maximum Weekly Average
TSS percent removal (81011) (See note c.)	%	Year-round	1/month	Calculation based on monthly average TSS concentration values	Monthly Average
pH (00400)	SU	Year-round	3/week	Grab	1. Daily Maximum 2. Daily Minimum
Chlorine, Total Residual (50060)	mg/L	Year-round	Daily	Grab	1. Daily Maximum 2. Monthly Average
Chlorine used (81400)	lb/day	Year-round	Daily	Scale reading	Monthly Average

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a.)	Report Statistic (See note b.)
Temperature (00010)	°C	Year-round	3/week	Grab (See note d.)	1. Daily Maximum 2. Monthly Average 3. 7-day Rolling Average of Daily Maximum
<i>E. coli</i> (51040)	#/100 mL	Year-round	2/month	Grab	1. Daily Maximum 2. Monthly Geometric Mean
Alkalinity as CaCO ₃ (00410)	mg/L	Year-round	1/Quarter	24-hour composite	Quarterly Maximum
Dissolved Oxygen (00300)	mg/L	Third year of permit cycle [year]	1/Quarter	24-hour composite (See note e.)	Quarterly Minimum
Total Kjeldahl Nitrogen (TKN) (00625)	mg/L	Third year of permit cycle [year]	1/Quarter	24-hour composite	Quarterly Maximum
Total ammonia (as N) (00610)	mg/L	Third year of permit cycle [year]	1/Quarter	24-hour composite	Quarterly Maximum

Notes:

- In the event of equipment failure or loss, the permittee must notify DEQ and deploy new equipment to minimize interruption of data collection. If new equipment cannot be immediately deployed, the permittee must perform grab measurements. If the failure or loss is for continuous temperature monitoring equipment, the permittee must collect one grab sample daily between 12 PM and 5 PM until continuous monitoring equipment is redeployed.
- When submitting DMRs electronically, all data used to determine summary statistics must be submitted in a DEQ-approved format as a spreadsheet via electronic reporting unless otherwise directed by DEQ.
- Percent Removal must be calculated on a monthly basis using the following formula:

$$\text{Percent Removal} = \frac{[\text{Influent Concentration}] - [\text{Effluent Concentration}]}{[\text{Influent Concentration}]} \times 100$$

Where:

Influent Concentration = Corresponding Monthly average influent concentration based on the analytical results of the reporting period.

Effluent Concentration = Corresponding Monthly average effluent concentration based on the analytical results of the reporting period.

- The permittee must perform temperature grab measurements between 12 PM and 5 PM.
- CFR 122.21 requires that Dissolved Oxygen be collected as a 24-hour composite for permit application purposes. CFR 136.3(e) specifies that if a composite measurement is required but a composite sample would compromise sample integrity, that individual grab samples must be collected. For Dissolved Oxygen, the permittee must collect and analyze at least four discrete grab samples over the operating day with samples collected no less than one hour apart. The analytical results for all samples in a day must be averaged for reporting purposes.

4. Biosolids Monitoring Requirements

The permittee must monitor biosolids land applied or produced for sale or distribution as listed below. The samples must be representative of the quality and quantity of biosolids generated and undergo the same treatment process used to prepare the biosolids. Results must be reported as required in the biosolids management plan described in Schedule D.

Table B4: Biosolids Monitoring

Item or Parameter	Minimum Frequency	Sample Type
Nutrient and conventional parameters (% dry weight unless otherwise specified): Total Kjeldahl Nitrogen (TKN) Nitrate-Nitrogen (NO ₃ -N) Total Ammonia-Nitrogen (NH ₃ -N) Total Phosphorus (P) Potassium (K) pH (S.U.) Total Solids Volatile Solids	As described in DEQ-approved Biosolids Management Plan, but not less than the frequency in Table B5.	As described in DEQ-approved Biosolids Management Plan
Pollutants: As, Cd, Cu, Hg, Pb, Mo, Ni, Se, Zn, mg/kg dry weight	As described in DEQ-approved Biosolids Management Plan, but not less than the frequency in Table B5	As described in DEQ-approved Biosolids Management Plan
Pathogen reduction	As described in DEQ-approved Biosolids Management Plan, but not less than the frequency in Table B5.	As described in DEQ-approved Biosolids Management Plan
Vector attraction reduction	As described in DEQ-approved Biosolids Management Plan, but not less than the frequency in Table B5.	As described in DEQ-approved Biosolids Management Plan
Record of biosolids land application: date, quantity, location.	Each event	Record the date, quantity, and location of biosolids land applied on site location map or equivalent electronic system, such as GIS.

Table B5: Biosolids Minimum Monitoring Frequency

Quantity of biosolids land applied or produced for sale or distribution per calendar year		Minimum Sampling Frequency
(dry metric tons)	(dry U.S. tons)	
Less than 290	Less than 320	Once per year
290 to 1,500	320 to 1,653	Once per quarter (4x/year)
1,500 to 15,000	1,653 to 16,535	Once per 60 days (6x/year)
15,000 or more	16,535 or more	Once per month (12x/year)

SCHEDULE C: COMPLIANCE SCHEDULE

A compliance schedule is not part of this permit.

Applicant Review Draft

SCHEDULE D: SPECIAL CONDITIONS

1. Inflow and Infiltration

The permittee must submit to DEQ an annual inflow and infiltration report on a DEQ-approved form as directed in Table B1. The report must include the following:

- a. An assessment of the facility's I/I issues based on a comparison of summer and winter flows to the plant.
- b. Details of activities performed in the previous year to identify and reduce inflow and infiltration.
- c. Details of activities planned for the following year to identify and reduce inflow and infiltration.
- d. A summary of sanitary sewer overflows that occurred during the previous year. This should include the following: date of the SSO, location, estimated volume, cause, follow-up actions and if performed, the results of receiving stream monitoring.

2. Emergency Response and Public Notification Plan

The permittee must develop an Emergency Response and Public Notification Plan ("plan"), or ensure the facility's existing plan is current and accurate, per Schedule F, Section B, and Condition 8 within 6 months of permit effective date. The permittee must update the plan annually to ensure all information contained in the plan, including telephone and email contact information for applicable public agencies, is current and accurate. An updated copy of the plan must be kept on file at the facility for DEQ review. The latest plan revision date must be listed on the plan cover along with the reviewer's initials or signature.

3. Exempt Wastewater Reuse at the Treatment System

Recycled water used for landscape irrigation within the property boundary or in-plant processes at the wastewater treatment system is exempt from the requirements of OAR 340-055 if all of the following conditions are met:

- a. The recycled water is an oxidized and disinfected wastewater.
- b. The recycled water is used at the wastewater treatment system site where it is generated or at an auxiliary wastewater or sludge treatment facility that is subject to the same NPDES or WPCF permit as the wastewater treatment system.
- c. Spray and/or drift from the use does not migrate off the site.
- d. Public access to the site is restricted.

4. Wastewater Solids Annual Report

The permittee must submit a Wastewater Solids Annual Report by February 19 each year documenting removal of wastewater solids from the facility during the previous calendar year. The permittee must use DEQ-approved wastewater solids annual report form. This report must include the volume of material removed and the name of the permitted facility that received the solids.

5. Biosolids Management Plan

Prior to distributing biosolids to the public, the permittee must develop and maintain a Biosolids Management Plan and Land Application Plan meeting the requirements in OAR 340-050-0031. The permittee must submit these plans and any significant modification of these plans to DEQ for review and approval with sufficient time to clear DEQ review and a public notice period prior to removing biosolids from the facility. The permittee must keep the plans updated. All plan revisions require written authorization from DEQ and are effective upon permittee's receipt of DEQ written approval. No significant modifications can be made to a plan for an administratively extended permit (after the permit expiration date). Conditions in the plans are enforceable requirements under this permit.

a. Annual Report

The permittee must submit a Biosolids Annual Report by February 19 each year documenting biosolids management activities of the previous calendar year as described in OAR 340-050-0035(6). The permittee must use DEQ approved Biosolids Annual report form. This report must include the monitoring data and analytical laboratory reports for the previous year's monitoring specified under Schedule B.

b. Site Authorization

The permittee must obtain written authorization from DEQ for each land application site prior to its use. Conditions in site authorizations are enforceable requirements under this permit. The permittee is prohibited from land applying biosolids to a DEQ-approved site except in accordance with the site authorization, while this permit is effective and with the written approval of the property owner. DEQ may modify or revoke a site authorization following the procedures for a permit modification described in OAR 340-045-0055.

c. Public Participation

- i. DEQ will provide an opportunity for public review and comment on any significant plan modifications prior to approving or denying. Public review is not required for minor modifications or changes to utilization dates.
- ii. No DEQ-initiated public notice is required for continued use of sites identified in DEQ-approved biosolids management plan.
- iii. For new sites that fail to meet the site selection criteria in the biosolids management plan or that are deemed by DEQ to be sensitive with respect to residential housing, runoff potential, or threat to groundwater, DEQ will provide an opportunity for public comment as directed by OAR 340-050-0030(2).
- iv. For all other new sites, the permittee must provide for public participation following procedures in its DEQ-approved land application plan.

d. Exceptional Quality Biosolids

The permittee is exempt from the requirements in Condition 5.b. above, if:

- i. Pollutant concentrations of biosolids are less than the pollutant concentration limits in Schedule A, Table A2;
- ii. Biosolids meet one of the Class A pathogen reduction alternatives in 40 CFR 503.32(a); and

- iii. Biosolids meet one of the vector attraction reduction options in 40 CFR 503.33(b)(1) through (8).

6. Wastewater Solids Transfers

- a. *Within state.* The permittee may transfer wastewater solids including Class A and Class B biosolids, to another facility permitted to process or dispose of wastewater solids, including but not limited to: another wastewater treatment facility, landfill, or incinerator. The permittee must satisfy the requirements of the receiving facility. The permittee must report the name of the receiving facility and the quantity of material transferred in the wastewater solids or biosolids annual report identified in Schedule B.
- b. *Out of state.* If wastewater solids, including Class A and Class B biosolids, are transferred out of state for use or disposal, the permittee must obtain written authorization from DEQ, meet Oregon requirements for the use or disposal of wastewater solids, notify in writing the receiving state of the proposed use or disposal of wastewater solids, and satisfy the requirements of the receiving state.

7. Hauled Waste Control Plan

The permittee may accept hauled wastes at discharge points designated by the POTW after receiving written DEQ approval of a Hauled Waste Control Plan. Hauled wastes may include wastewater solids from another wastewater treatment facility, septage, grease trap wastes, portable and chemical toilet wastes, landfill leachate, groundwater remediation wastewaters and commercial/industrial wastewaters. A Hauled Waste Control Plan is not required in the event biological seed must be added to the process at the POTW to facilitate effective wastewater treatment.

8. Operator Certification

- a. Definitions
 - i. “Supervise” means to have full and active responsibility for the daily on site technical operation of a wastewater treatment system or wastewater collection system.
 - ii. “Supervisor” or “designated operator”, means the operator delegated authority by the permittee for establishing and executing the specific practice and procedures for operating the wastewater treatment system or wastewater collection system in accordance with the policies of the owner of the system and any permit requirements.
 - iii. “Shift Supervisor” means the operator delegated authority by the permittee for executing the specific practice and procedures for operating the wastewater treatment system or wastewater collection system when the system is operated on more than one daily shift.
 - iv. “System” includes both the collection system and the treatment systems.
- b. The permittee must comply with OAR Chapter 340, Division 49, “Regulations Pertaining to Certification of Wastewater System Operator Personnel” and designate a supervisor whose certification corresponds with the classification of the collection and/or treatment system as specified in DEQ Supervisory Wastewater Operator Status Report. DEQ may revise the permittee’s classification in writing at any time to reflect changes in the collection or treatment system. This reclassification is not considered a permit modification and may be made after the permit expiration date provided the permit has been administratively extended by DEQ. If a facility is re-classified, a certified letter will be mailed to the system owner from DEQ Operator Certification Program. Current system classifications are publicized on DEQ Supervisory Wastewater Operator Status Report found on [DEQ Wastewater Operator Certification Homepage](#)

- c. The permittee must have its system supervised on a part-time or full-time basis by one or more operators who hold a valid certificate for the type of wastewater treatment or wastewater collection system the operator is supervising and at a grade equal to or greater than the wastewater system's classification.
- d. The permittee's wastewater system may be without the designated supervisor for up to 30 consecutive days if another person supervises the system, who is certified at no more than one grade lower than the classification of the wastewater system. The permittee must delegate authority to this operator to supervise the operation of the system.
- e. If the wastewater system has more than one daily shift, the permittee must have another properly certified operator available to supervise operation of the system. Each shift supervisor must be certified at no more than one grade lower than the system classification.
- f. The permittee is not required to have a supervisor on site at all times; however, the supervisor must be available to the permittee and operator at all times.
- g. The permittee must notify DEQ in writing of the name of the system supervisor by completing and submitting the Supervisory Wastewater System Operator Designation Form. The most recent version of this form may be found on [DEQ Wastewater Operator Certification homepage](#) *NOTE: This form is different from the Delegated Authority form. The permittee may replace or re-designate the system supervisor with another properly certified operator at any time and must notify DEQ in writing within 30 days of replacement or re-designation of the operator in charge. As of this writing, the notice of replacement or re-designation must be sent to Water Quality Division, Operator Certification Program, 700 NE Multnomah St, Suite 600, Portland, OR 97232-4100. This address may be updated in writing by DEQ during the term of this permit.
- h. When compliance with item (c) of this section is not possible or practicable because the system supervisor is not available or the position is vacated unexpectedly, and another certified operator is not qualified to assume supervisory responsibility, the Director may grant a time extension for compliance with the requirements in response to a written request from the system owner. The Director will not grant an extension longer than 120 days unless the system owner documents the existence of extraordinary circumstances.

9. Industrial User Survey

Industrial User Survey Update

- a. By the date listed in Table B1, the permittee must submit to DEQ an update to the industrial user survey that was completed February 1, 2022. The update must be completed in accordance with 40 CFR 403.8(f)(2)(i-iii) and provide DEQ with sufficient information to determine the need for development of a pretreatment program.
- b. Should DEQ determine that a pretreatment program is required, the permit must be reopened and modified in accordance with 40 CFR 403.8(e)(1) to incorporate a compliance schedule to require development of a pretreatment program. The compliance schedule must be developed in accordance with the provisions of 40 CFR 403.12(k), and must not exceed twelve (12) months.

10. Outfall Inspection

The permittee must inspect Outfall 001 including the submerged portion of the outfall line and diffuser to document its integrity and to determine whether it is functioning as designed. The inspection must determine whether diffuser ports are intact, clear and fully functional. The inspection must verify the latitude and longitude of the diffuser. The permittee must submit a written report to DEQ regarding the results of the outfall inspection by the date in Table B1. The report must include a description of the outfall as originally constructed, the condition of the current outfall and identify any repairs needed to return the outfall to satisfactory condition.

11. Boat Ramp Signage

The permittee must post a sign at the Cloverdale boat ramp immediately downstream of the outfall if effluent monitoring shows a bacteria limit exceedance, a disinfection system malfunction, or other treatment plant problems that could adversely affect public health.

Applicant Review Draft

SCHEDULE E: PRETREATMENT ACTIVITIES

A pretreatment program is not part of this permit.

Applicant Review Draft

SCHEDULE F: NPDES GENERAL CONDITIONS

DOMESTIC FACILITIES October 1, 2015 Version

SECTION A. STANDARD CONDITIONS

A1. Duty to Comply with Permit

The permittee must comply with all conditions of this permit. Failure to comply with any permit condition is a violation of Oregon Revised Statutes (ORS) 468B.025 and the federal Clean Water Act and is grounds for an enforcement action. Failure to comply is also grounds for DEQ to terminate, modify and reissue, revoke, or deny renewal of a permit.

A2. Penalties for Water Pollution and Permit Condition Violations

The permit is enforceable by DEQ or EPA, and in some circumstances also by third-parties under the citizen suit provisions of 33 USC § 1365. DEQ enforcement is generally based on provisions of state statutes and Environmental Quality Commission (EQC) rules, and EPA enforcement is generally based on provisions of federal statutes and EPA regulations.

ORS 468.140 allows DEQ to impose civil penalties up to \$25,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution in the second degree, is a Class A misdemeanor and is punishable by a fine of up to \$25,000, imprisonment for not more than one year, or both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, unlawful water pollution in the first degree is a Class B felony and is punishable by a fine of up to \$250,000, imprisonment for not more than 10 years, or both.

The Clean Water Act provides that any person who violates permit condition, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation.

The Clean Water Act provides that any person who negligently violates any condition, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than 1 year, or both.

In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than 2 years, or both.

Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both.

In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 years, or both.

Any person who knowingly violates section any permit condition, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both.

In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both.

An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

Any person may be assessed an administrative penalty by the Administrator for violating any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act.

Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000.

Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

A3. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit. In addition, upon request of DEQ, the permittee must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

A4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and have the permit renewed. The application must be submitted at least 180 days before the expiration date of this permit.

DEQ may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

A5. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any term, condition, or requirement of this permit, a rule, or a statute.
- b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts.
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- d. The permittee is identified as a Designated Management Agency or allocated a wasteload under a total maximum daily load (TMDL).
- e. New information or regulations.
- f. Modification of compliance schedules.
- g. Requirements of permit reopener conditions
- h. Correction of technical mistakes made in determining permit conditions.
- i. Determination that the permitted activity endangers human health or the environment.
- j. Other causes as specified in 40 CFR §§ 122.62, 122.64, and 124.5.
- k. For communities with combined sewer overflows (CSOs):
 - (1) To comply with any state or federal law regulation for CSOs that is adopted or promulgated subsequent to the effective date of this permit.

- (2) If new information that was not available at the time of permit issuance indicates that CSO controls imposed under this permit have failed to ensure attainment of water quality standards, including protection of designated uses.
- (3) Resulting from implementation of the permittee's long-term control plan and/or permit conditions related to CSOs.

The filing of a request by the permittee for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

A6. Toxic Pollutants

The permittee must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rule (OAR) 340-041-0033 and section 307(a) of the federal Clean Water Act for toxic pollutants, and with standards for sewage sludge use or disposal established under section 405(d) of the federal Clean Water Act, within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

A7. Property Rights and Other Legal Requirements

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, or authorize any injury to persons or property or invasion of any other private rights, or any infringement of federal, tribal, state, or local laws or regulations.

A8. Permit References

Except for effluent standards or prohibitions established under section 307(a) of the federal Clean Water Act and OAR 340-041-0033 for toxic pollutants, and standards for sewage sludge use or disposal established under section 405(d) of the federal Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

A9. Permit Fees

The permittee must pay the fees required by OAR.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

B1. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

B2. Need to Halt or Reduce Activity Not a Defense

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B3. Bypass of Treatment Facilities

a. Definitions

- (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be

exceeded, provided the diversion is to allow essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs b and c of this section.

- (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- b. Prohibition of bypass.
 - (1) Bypass is prohibited and DEQ may take enforcement action against a permittee for bypass unless:
 - i. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventative maintenance; and
 - iii. The permittee submitted notices and requests as required under General Condition B3.c.
 - (2) DEQ may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, if DEQ determines that it will meet the three conditions listed above in General Condition B3.b.(1).
- c. Notice and request for bypass.
 - (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, a written notice must be submitted to DEQ at least ten days before the date of the bypass.
 - (2) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required in General Condition D5.

B4. Upset

- a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of General Condition B4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the causes(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in General Condition D5, hereof (24-hour notice); and
 - (4) The permittee complied with any remedial measures required under General Condition A3 hereof.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

B5. Treatment of Single Operational Upset

For purposes of this permit, a single operational upset that leads to simultaneous violations of more than one pollutant parameter will be treated as a single violation. A single operational upset is an exceptional incident that causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one federal Clean Water Act effluent discharge pollutant parameter. A single

operational upset does not include federal Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational upset is a violation.

B6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations

- a. Definition. "Overflow" means any spill, release or diversion of sewage including:
 - (1) An overflow that results in a discharge to waters of the United States; and
 - (2) An overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building lateral), even if that overflow does not reach waters of the United States.
- b. Reporting required. All overflows must be reported orally to DEQ within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D5.

B7. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs that threatens public health, the permittee must take such steps as are necessary to alert the public, health agencies and other affected entities (for example, public water systems) about the extent and nature of the discharge in accordance with the notification procedures developed under General Condition B8. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

B8. Emergency Response and Public Notification Plan

The permittee must develop and implement an emergency response and public notification plan that identifies measures to protect public health from overflows, bypasses, or upsets that may endanger public health. At a minimum the plan must include mechanisms to:

- a. Ensure that the permittee is aware (to the greatest extent possible) of such events;
- b. Ensure notification of appropriate personnel and ensure that they are immediately dispatched for investigation and response;
- c. Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;
- d. Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained;
- e. Provide emergency operations; and
- f. Ensure that DEQ is notified of the public notification steps taken.

B9. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering waters of the state, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

C1. Representative Sampling

Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit, and must be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points must not be changed without notification to and the approval of DEQ. Samples must be collected in accordance with requirements in 40 CFR part 122.21 and 40 CFR part 403 Appendix E.

C2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

C3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR part 136 or, in the case of sludge (biosolids) use and disposal, approved under 40 CFR part 503 unless other test procedures have been specified in this permit.

For monitoring of recycled water with no discharge to waters of the state, monitoring must be conducted according to test procedures approved under 40 CFR part 136 or as specified in the most recent edition of Standard Methods for the Examination of Water and Wastewater unless other test procedures have been specified in this permit or approved in writing by DEQ.

C4. Penalties for Tampering

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

C5. Reporting of Monitoring Results

Monitoring results must be summarized each month on a discharge monitoring report form approved by DEQ. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

C6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR part 136 or, in the case of sludge (biosolids) use and disposal, approved under 40 CFR part 503, or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the discharge monitoring report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (for example, total residual chlorine), only the average daily value must be recorded unless otherwise specified in this permit.

C7. Averaging of Measurements

Calculations for all limitations that require averaging of measurements must utilize an arithmetic mean, except for bacteria which must be averaged as specified in this permit.

C8. Retention of Records

Records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities must be retained for a period of at least 5 years (or longer as required by 40 CFR part 503). Records of all monitoring information including all calibration and maintenance records, all original strip chart 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 must be retained for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of DEQ at any time.

C9. Records Contents

Records of monitoring information must include:

- a. The date, exact place, time, and methods of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

C10. Inspection and Entry

The permittee must allow DEQ or EPA upon the presentation of credentials to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

C11. Confidentiality of Information

Any information relating to this permit that is submitted to or obtained by DEQ is available to the public unless classified as confidential by the Director of DEQ under ORS 468.095. The permittee may request that information be classified as confidential if it is a trade secret as defined by that statute. The name and address of the permittee, permit applications, permits, effluent data, and information required by NPDES application forms under 40 CFR § 122.21 are not classified as confidential [40 CFR § 122.7(b)].

SECTION D. REPORTING REQUIREMENTS

D1. Planned Changes

The permittee must comply with OAR 340-052, "Review of Plans and Specifications" and 40 CFR § 122.41(l)(1). Except where exempted under OAR 340-052, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers may be commenced until the plans and specifications are submitted to and approved by DEQ. The permittee must give notice to DEQ as soon as possible of any planned physical alternations or additions to the permitted facility.

D2. Anticipated Noncompliance

The permittee must give advance notice to DEQ of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

D3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and EQC rules. No permit may be transferred to a third party without prior written approval from DEQ. DEQ may require modification, revocation, and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under 40 CFR § 122.61. The permittee must notify DEQ when a transfer of property interest takes place.

D4. Compliance Schedule

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

schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

D5. Twenty-Four Hour Reporting

The permittee must report any noncompliance that may endanger health or the environment. Any information must be provided orally (by telephone) to the DEQ regional office or Oregon Emergency Response System (1-800-452-0311) as specified below within 24 hours from the time the permittee becomes aware of the circumstances.

a. Overflows.

(1) Oral Reporting within 24 hours.

- i. For overflows other than basement backups, the following information must be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311. For basement backups, this information should be reported directly to the DEQ regional office.
 - (a) The location of the overflow;
 - (b) The receiving water (if there is one);
 - (c) An estimate of the volume of the overflow;
 - (d) A description of the sewer system component from which the release occurred (for example, manhole, constructed overflow pipe, crack in pipe); and
 - (e) The estimated date and time when the overflow began and stopped or will be stopped.
- ii. The following information must be reported to the DEQ regional office within 24 hours, or during normal business hours, whichever is earlier:
 - (a) The OERS incident number (if applicable); and
 - (b) A brief description of the event.

(2) Written reporting postmarked within 5 days.

- i. The following information must be provided in writing to the DEQ regional office within 5 days of the time the permittee becomes aware of the overflow:
 - (a) The OERS incident number (if applicable);
 - (b) The cause or suspected cause of the overflow;
 - (c) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
 - (d) Steps taken or planned to mitigate the impact(s) of the overflow and a schedule of major milestones for those steps; and
 - (e) For storm-related overflows, the rainfall intensity (inches/hour) and duration of the storm associated with the overflow.

DEQ may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

b. Other instances of noncompliance.

(1) The following instances of noncompliance must be reported:

- i. Any unanticipated bypass that exceeds any effluent limitation in this permit;
- ii. Any upset that exceeds any effluent limitation in this permit;
- iii. Violation of maximum daily discharge limitation for any of the pollutants listed by DEQ in this permit; and
- iv. Any noncompliance that may endanger human health or the environment.

(2) During normal business hours, the DEQ regional office must be called. Outside of normal business hours, DEQ must be contacted at 1-800-452-0311 (Oregon Emergency Response System).

(3) A written submission must be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission 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 noncompliance is expected to continue if it has not been corrected;

- iv. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
 - v. Public notification steps taken, pursuant to General Condition B7.
- (4) DEQ may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

D6. Other Noncompliance

The permittee must report all instances of noncompliance not reported under General Condition D4 or D5 at the time monitoring reports are submitted. The reports must contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected; and
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

D7. Duty to Provide Information

The permittee must furnish to DEQ within a reasonable time any information that DEQ may request to determine compliance with the permit or to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit. The permittee must also furnish to DEQ, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it has failed to submit any relevant facts or has submitted incorrect information in a permit application or any report to DEQ, it must promptly submit such facts or information.

D8. Signatory Requirements

All applications, reports or information submitted to DEQ must be signed and certified in accordance with 40 CFR § 122.22.

D9. Falsification of Information

Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed \$125,000 per violation and up to 5 years in prison per ORS chapter 161. Additionally, according to 40 CFR § 122.41(k)(2), any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit including monitoring reports or reports of compliance or non-compliance will, upon conviction, be punished by a federal civil penalty not to exceed \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

D10. Changes to Indirect Dischargers

The permittee must provide adequate notice to DEQ of the following:

- a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the federal Clean Water Act if it were directly discharging those pollutants and;
- b. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- c. For the purposes of this paragraph, adequate notice must include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

SECTION E. DEFINITIONS

- E1. *BOD* or *BOD₅* means five-day biochemical oxygen demand.
- E2. *CBOD* or *CBOD₅* means five-day carbonaceous biochemical oxygen demand.
- E3. *TSS* means total suspended solids.
- E4. *Bacteria* means but is not limited to fecal coliform bacteria, total coliform bacteria, *Escherichia coli* (*E. coli*) bacteria, and *Enterococcus* bacteria.
- E5. *FC* means fecal coliform bacteria.
- E6. *Total residual chlorine* means combined chlorine forms plus free residual chlorine
- E7. *Technology based permit effluent limitations* means technology-based treatment requirements as defined in 40 CFR § 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-041.
- E8. *mg/l* means milligrams per liter.
- E9. *µg/l* means microgram per liter.
- E10. *kg* means kilograms.
- E11. *m³/d* means cubic meters per day.
- E12. *MGD* means million gallons per day.
- E13. *Average monthly effluent limitation* as defined at 40 CFR § 122.2 means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
- E14. *Average weekly effluent limitation* as defined at 40 CFR § 122.2 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.
- E15. *Daily discharge* as defined at 40 CFR § 122.2 means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge must be calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge must be calculated as the average measurement of the pollutant over the day.
- E16. *24-hour composite sample* means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
- E17. *Grab sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
- E18. *Quarter* means January through March, April through June, July through September, or October through December.
- E19. *Month* means calendar month.
- E20. *Week* means a calendar week of Sunday through Saturday.
- E21. *POTW* means a publicly-owned treatment works.



State of Oregon
Department of
Environmental
Quality

National Pollutant Discharge Elimination System Permit Fact Sheet Cloverdale Sanitary District

Permittee	Cloverdale Sanitary District Cloverdale STP 34540 Highway 101 South Cloverdale, OR 97112
Existing Permit Information	File Number: 17318 Permit Number: 102139 EPA Reference Number: OR0027294 Category: Domestic Class: Minor Expiration Date: 9/30/2024
Permittee Contact	Richard Nystrom Direct Operator in Charge 503-392-3117 PO Box 157 Cloverdale, OR 97112
Receiving Water Information	Receiving stream/NHD name: Nestucca River NHD Reach Code & % along reach: 17100203000035 – 80.8 % USGS 12-digit HUC: 171002030210 OWRD Administrative Basin: North Coast ODEQ LLID & River Mile: 1239555451826 – RM 7.0 Assessment Unit ID: OR_EB_1710020302_01_107216
Proposed Action	Permit Renewal Application Number: 948138 Date Application Received: 3/26/2024
Permit Writer	Matthew Schult 971-806-4857 Date Prepared: (final date prior to PN)

NPDES Permit Fact Sheet Cloverdale Sanitary District

Table of Contents

1. Introduction	4
2. Facility Description	4
2.1 Wastewater Facility	4
2.2 Stormwater	7
2.3 Industrial Pretreatment	7
2.4 Wastewater Classification	7
3. Schedule A: Effluent Limit Development	7
3.1 Existing Effluent Limits	8
3.2 Technology-Based Effluent Limit Development	9
3.3 Water Quality-Based Effluent Limit Development	11
3.4 Antibacksliding	20
3.5 Antidegradation	20
3.6 Whole Effluent Toxicity	21
3.7 Groundwater	21
4. Schedule A: Other Limitations	21
4.1 Mixing Zone	21
4.2 Biosolids	21
5. Schedule B: Monitoring and Reporting Requirements	22
6. Schedule C: Compliance Schedule	22
7. Schedule D: Special Conditions	22
7.1 Inflow and Infiltration	22
7.2 Emergency Response and Public Notification Plan	22
7.3 Exempt Wastewater Reuse at the Treatment System	23
7.4 Wastewater Solids Annual Report	23
7.5 Biosolids Management Plan	23
7.6 Wastewater Solids Transfers	23
7.7 Hauled Waste Control Plan	23
7.8 Operator Certification	23
7.9 Industrial User Survey	23
7.10 Outfall Inspection	23
7.11 Boat Ramp Signage	24
8. Schedule F: NPDES General Conditions	24
Appendix A: Reasonable Potential Analyses - Temperature	25

List of Tables

Table 2-1: List of Outfalls.....	7
Table 3-1: BOD ₅ and TSS Limits	8
Table 3-2: Limits for Additional Parameters	8
Table 3-3: Comparison of TBELs for Federal Secondary Treatment Standards and Oregon Basin-Specific Design Criteria.....	9
Table 3-4: Design Flows and Concentrations Limits	10
Table 3-5: BOD ₅ and TSS Technology Based Effluent Limits	10
Table 3-6: Category 5 and Category 4A Parameters	12
Table 3-7: Applicable WLAs.....	12
Table 3-8: Domestic Toxic Pollutants of Concern	13
Table 3-9: Pollutants of Concern	13
Table 3-10: Mixing Zone Dilution Summary	14
Table 3-11: pH Reasonable Potential Analysis	15
Table 3-12: Temperature Criteria Information	16
Table 3-13: Temperature Criterion Effluent Limits.....	17
Table 3-14: Thermal Plume Effluent Limit	18
Table 3-15: Proposed <i>E. coli</i> Limits	19
Table 3-16: Proposed Chlorine Limits.....	20

List of Figures

Figure 2-1: Site map for Cloverdale Sanitary District facility.....	6
Figure 2-2: Line drawing of Cloverdale wastewater treatment operations.....	7

NPDES Permit Renewal Fact Sheet

Cloverdale Sanitary District

1. Introduction

As required by Oregon Administrative Rule 340-045-0035, this fact sheet describes the basis and methodology used in developing the permit. The permit is divided into several sections:

- Schedule A – Waste discharge limitations
- Schedule B – Minimum monitoring and report requirements
- Schedule C – Compliance conditions and schedules
- Schedule D – Special conditions
- Schedule E – Pretreatment conditions
- Schedule F – General conditions

Below is a summary of the major changes to the permit:

- Effluent limit for total residual chlorine (Average Monthly) is reduced.
- Proposed updates to monitoring requirements:
 - New requirement to monitor for effluent dissolved oxygen, total Kjeldahl nitrogen and total ammonia (as nitrogen)
 - Removed requirement to monitor influent flow (addressed in 2020 permit modification).
 - Removed requirement to monitor influent mass loading (lb/day) for BOD₅ and TSS.
 - Effluent temperature monitoring is now required year-round.

2. Facility Description

2.1 Wastewater Facility

The Cloverdale Sanitary District's (CSD) sewage treatment plant is located at 34540 Highway 101 South within the unincorporated community of Cloverdale in Tillamook County along the Nestucca River (Figure 2-1). The CSD treatment facility was originally placed into operation in 1978. The facility receives domestic sewage from Cloverdale, with a service population of 240 individuals and no industrial contributions. The Nestucca High School contributes a significant portion of influent to the treatment plant from an estimated commuter population of 315 teachers and students who do not reside in Cloverdale. Minor plant and process upgrades occurred in 2003 when dechlorination (via bisulfite) was added, and recently the facility upgraded their tertiary filter system to improve performance and efficiency. The dry weather design flow for this facility is 0.04 MGD. Flows in recent years have averaged around 0.02 MGD, with average peak daily flows of 0.06 MGD.

The facility's sewage collection system consists of 9,400 feet of 8-inch concrete pipe. Domestic wastewater from the community is collected via gravity flow to the facility's headworks where an influent lift station pumps the sewage up to the headworks of the plant for treatment. The facility features a 0.5 million gallon emergency surge basin to contain peak flows that allows the plant to control treatment during these events. The treatment facility utilizes an activated sludge process to treat wastewater to meet pollutant discharge standards for discharge to the Nestucca River in Cloverdale. Treatment occurs in an activated sludge doughnut plant followed by chlorine disinfection, filtration, then dechlorination. Treated effluent discharges via gravity to the Nestucca River near river mile 7.0 (upstream of the boat ramp). See Figure 2-2 for a treatment process diagram.

The treatment plant discharge point (Outfall 001) was constructed as a multi-port diffuser. The 2011 mixing zone survey described the diffuser as "not likely to operate as such". The outfall pipe consists of a 40-foot section of 6-inch steel pipe, installed in the bottom of the river, perpendicular to flow direction, with 3/8-inch by 5-inch slots at 8-inch intervals in the top of the pipe. In this configuration it is subject to being covered/and or filled in with sediment and organic debris. The mixing zone study suggested that most effluent was likely to be discharged from the first two to four slots in the pipe, and that a dye test confirmed the outfall was functioning more as a "point source rather than a line source". Schedule D of the current permit requires the permittee to inspect the outfall annually to ensure that the diffuser pipe remains exposed and functional. The outfall is located northwest of the facility, and has the following coordinates: 45.205958°, -123.893108°.

CSD currently sends all its wastewater solids to the Port of Tillamook Bay for treatment, and therefore does not have biosolids provisions within the current permit. The Port of Tillamook Bay operates a DEQ permitted sludge treatment facility where the wastewater solids may be screened, lime stabilized, and land applied as Class B lime stabilized biosolids or be dewatered for offsite landfilling. In 2023, CSD reported 30,574 gallons of wastewater solids were transferred to the Port of Tillamook Bay for treatment. Although the Cloverdale STP does have the ability to aerobically digest its wastewater solids, CSD does not currently land apply biosolids or produce biosolids for sale or distribution. Biosolids provisions were included in the proposed permit, should the CSD decide to treat biosolids onsite and develop a Biosolids Management Plan. Furthermore, CSD does not land apply or irrigate any recycled water and is not authorized to accept hauled waste.

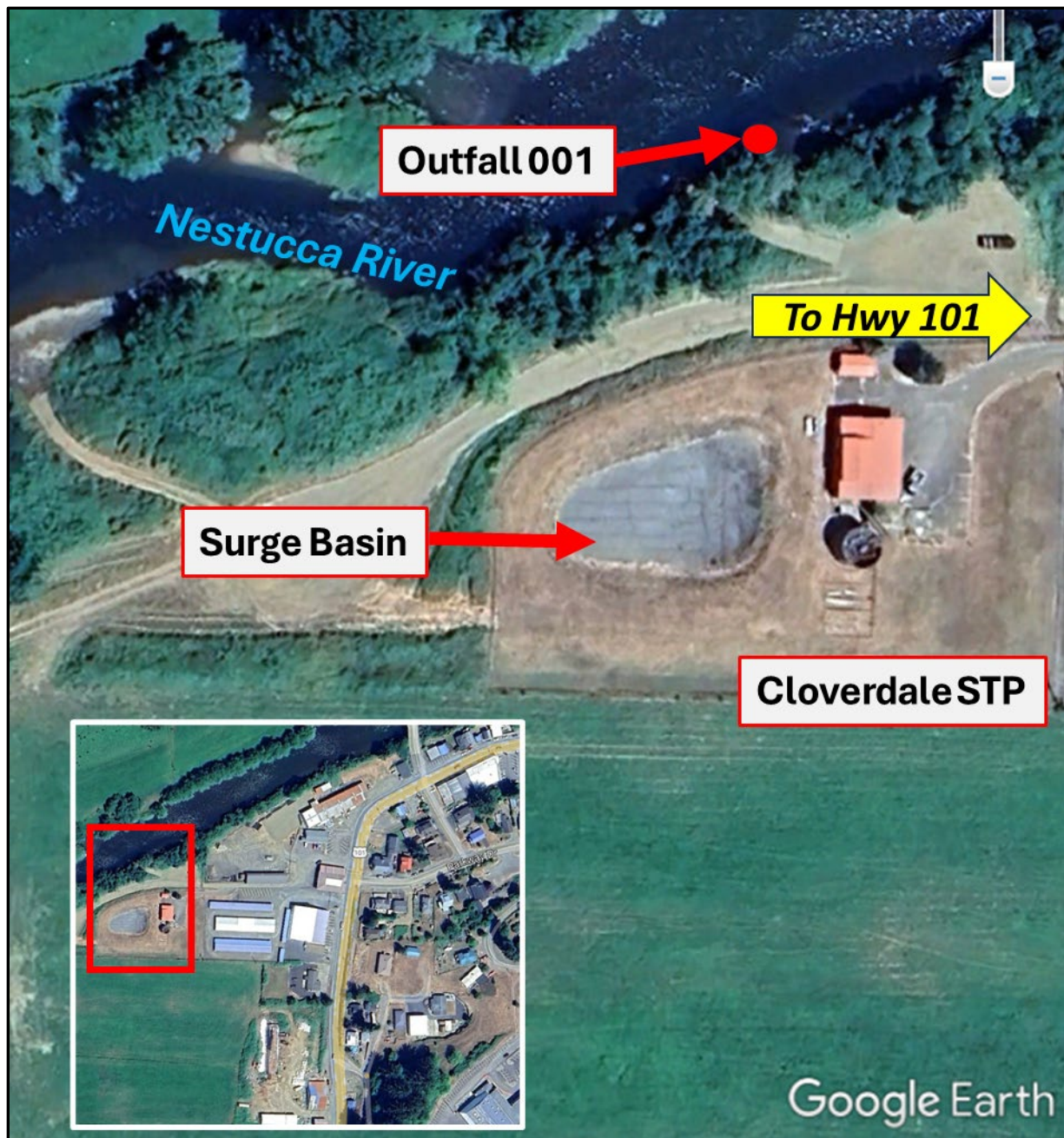


Figure 2-1: Site map for Cloverdale Sanitary District facility.

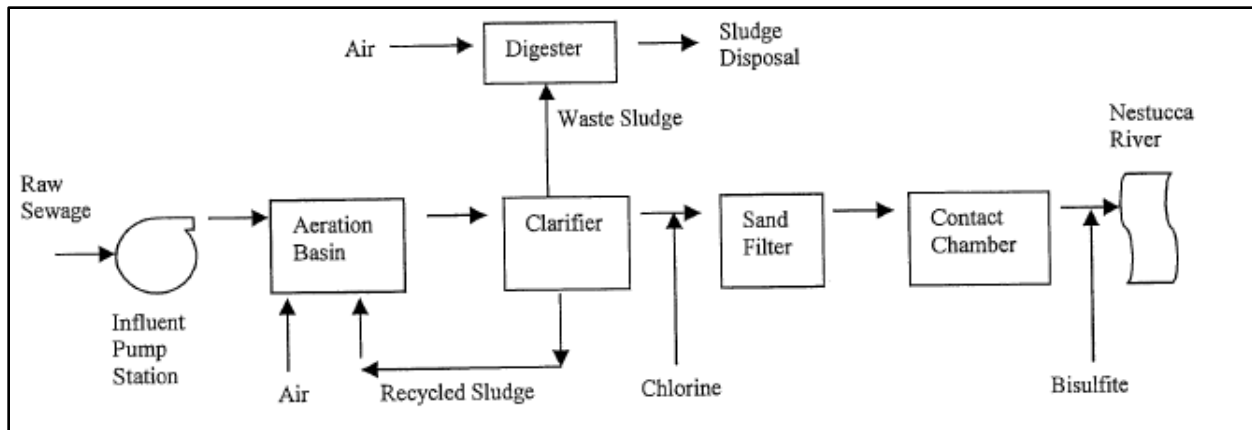


Figure 2-2: Line drawing of Cloverdale wastewater treatment operations.

Table 2-1: List of Outfalls

Outfall Number	Type of Waste	Lat/Long
001	Treated wastewater	45.205958°, -123.893108°

2.2 Stormwater

Stormwater is not addressed in this permit. General NPDES permits for stormwater are not required for facilities with a design flow of less than 1 MGD.

2.3 Industrial Pretreatment

The permittee does not have a DEQ-approved industrial pretreatment program. Based on current information, no industrial pretreatment program is needed. Schedule D of the proposed permit requires the permittee to perform an industrial user survey.

2.4 Wastewater Classification

OAR 340-049 requires all permitted municipal wastewater collection and treatment facilities receive a classification based on the size and complexity of the systems. DEQ evaluated the classifications for the treatment and collection system, which are publicly available at:

<https://www.deq.state.or.us/wq/opcert/Docs/OpcertReport.pdf>.

3. Schedule A: Effluent Limit Development

Effluent limits serve as the primary mechanism in NPDES permits for controlling discharges of pollutants to receiving waters. Effluent limitations can be based on either the technology available to control the pollutants or limits that are protecting the water quality standards for the receiving water. DEQ refers to these two types of permit limits as technology-based effluent limitations (TBELs) and water quality-based effluent limits (WQBELs) respectively. When a TBEL is not restrictive enough to protect the receiving stream, DEQ must include a WQBEL in the permit.

3.1 Existing Effluent Limits

The tables below show the limits contained in the existing permit.

1. Outfall 001 – Permit Limits

a. BOD₅ and TSS

- i. Year-round. During this time-period the permittee must comply with the limits in the following table:

Table 3-1: BOD₅ and TSS Limits

Parameter	Average Effluent Concentrations, mg/L		Monthly * Average lbs/day	Weekly * Average lbs/day	Daily * Maximum lbs/day
	Monthly	Weekly			
BOD ₅	10	15	3.3	5.0	6.6
TSS	10	15	3.3	5.0	6.6
* Average dry weather design flow to the facility equals 0.04 MGD. DEQ based mass load limits on the average dry weather design flow to the facility.					

b. Additional Parameters

The permittee must comply with the limits in the following table (year-round except as noted):

Table 3-2: Limits for Additional Parameters

Year-round	Limits
<i>E. coli</i> bacteria	Must not exceed 57 organisms per 100 mL monthly geometric mean. Any single sample must not exceed 182 organisms per 100 mL (See Note a.)
pH	Must be within the range of 6.0 – 9.0 S.U.
BOD ₅ and TSS Removal Efficiency	Must not be less than 85% monthly average for BOD ₅ , and 85% monthly average for TSS.
Total Residual Chlorine	Must not exceed an average monthly limit of 0.1 mg/L, and a daily maximum of 0.25 mg/L.
Effluent Temperature	Must not exceed 25 °C Maximum 7 day rolling average
Note: a. If a single sample exceeds 182 organisms per 100 mL, then five consecutive re-samples may be taken at four-hour intervals beginning within 28 hours after the original sample was taken. If the log mean of the five re-samples is less than or equal to 57 organisms per 100 mL, a violation is not triggered.	

3.2 Technology-Based Effluent Limit Development

40 CFR 122.44(a)(1) requires publicly owned treatment works (POTW) to meet technology-based effluent limits, for five-day biochemical oxygen demand (BOD₅), total suspended solids (TSS) and pH (i.e., federal secondary treatment standards). Substitution of 5-day carbonaceous oxygen demand (CBOD₅) for BOD₅ is allowed. The numeric standards for these pollutants are contained in 40 CFR 133.102. In addition, DEQ has developed minimum design criteria for BOD₅ and TSS that apply to specific watershed basins in Oregon. These are listed in the basin-specific criteria sections under OAR 340-041-0101 to 0350. During the summer low flow months as defined by OAR, these design criteria are more stringent than the federal secondary treatment standards. The basin-specific criteria are not effluent limits, but are implemented as design criteria for new or expanded wastewater treatment plants. The table below shows a comparison of the federal secondary treatment standards and the basin-specific design criteria for the North Coast basin.

Table 3-3: Comparison of TBELs for Federal Secondary Treatment Standards and Oregon Basin-Specific Design Criteria

Parameter	Federal Secondary Treatment Standards		North Coast Basin-Specific Design Criteria (OAR 340-041-0235)
	30-Day Average	7-Day Average	Monthly Average
BOD ₅ (mg/L)	30	45	20 mg/L during defined summer months (approx. May 1 – Oct. 31), A minimum of secondary treatment or equivalent control during winter months (approx. November 1 – April 30).
TSS (mg/L)	30	45	
pH (S.U.)	6.0 – 9.0. (instantaneous)		Not applicable
BOD ₅ and TSS % Removal	85%	Not applicable	Not applicable

The limits for BOD₅ and TSS shown in the table above are concentration-based limits. Mass-based limits are required in addition to the concentration-based limits per OAR 340-041-0061(9). The basin-specific design criteria included in the table above apply to new or expanded facilities (after June 30, 1992). This facility is not new or expanded, so these criteria do not apply. For any facility that has not expanded their average dry weather treatment capacity after June 30, 1992, OAR 340-041-0061(9)(a) requires that the mass load limits be calculated using the following equations:

$$\text{Monthly Avg Mass Load} = \text{Design Flow}^* \times \text{Monthly Concentration Limit} \times \text{Unit Conversion factor}$$

$$\text{Weekly Average Mass Load} = 1.5 \times \text{Monthly Average Mass Load Limit}$$

$$\text{Daily Maximum Mass Load} = 2 \times \text{Monthly Average Mass Load Limit}$$

* Design flow is the design average dry weather flow (DADWF) or the design average wet weather flow (DAWWF)

OAR 340-041-0061(9)(a)(C) allows an exception to the daily maximum mass load when the daily flow exceeds the lesser hydraulic capacity of the secondary treatment portion of the facility or twice the design average dry weather flow, the daily mass load limit does not apply.

The following table lists the effluent flows and concentration limits used for the calculations.

Table 3-4: Design Flows and Concentrations Limits

Season	Design Flow (mgd)	Monthly TSS Concentration Limit (mg/L)	Monthly BOD ₅ Concentration Limit (mg/L)
Year round	0.04	10	10
Design flow comments: Design flow is average dry weather design flow.			

Example: Mass Load Calculations:

Monthly Average: $0.04 \text{ mgd} \times 10 \text{ mg/L} \times 8.34 = 3.3 \text{ lbs/day}$

Weekly Average: $3.3 \text{ lbs/day monthly average} \times 1.5 = 5.0 \text{ lbs/day}$

Daily Maximum: $3.3 \text{ lbs/day monthly average} \times 2 = 6.6 \text{ lbs/day}$

The proposed BOD₅ and TSS limits are listed in the following table.

Table 3-5: BOD₅ and TSS Technology Based Effluent Limits

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
BOD ₅ (Year-round)	mg/L	10	15	NA
	lbs/day	3.3	5.0	6.6
	% removal	85	NA	NA
TSS (Year-round)	mg/L	10	15	NA
	lbs/day	3.3	5.0	6.6
	% removal	85	NA	NA

3.3 Water Quality-Based Effluent Limit Development

40 CFR 122.44(d) requires that permits include limitations more stringent than technology-based requirements where necessary to meet water quality standards. Water quality-based effluent limits may be in the form of a wasteload allocation required as part of a Total Maximum Daily Load (TMDL). They may also be required if a site-specific analysis indicates the discharge has the reasonable potential to cause or contribute to an exceedance of a water quality criterion. DEQ establishes effluent limits for pollutants that have a reasonable potential to exceed a criterion. The analyses are discussed below.

3.3.1 Designated Beneficial Uses

NPDES permits issued by DEQ must protect the following designated beneficial uses of the Nestucca River Arm. These uses are listed in OAR-340-041-0230, Table 230A for estuaries and adjacent waters in the North Coast basin.

- Industrial water supply
- Fish and aquatic life (including salmonid rearing, migration and spawning)
- Wildlife and hunting
- Fishing
- Boating
- Water contact recreation
- Aesthetic quality
- Commercial navigation and transportation

3.3.2 303(d) Listed Parameters and Total Maximum Daily Loads

The following table lists the parameters that are on the 2022 303(d) list (Category 5) within the discharge's stream reach. If a parameter is listed under Category 5, the data in the assessment unit (or nearby assessment unit) indicates a designated use is not supported or a water quality standard is not attained and a TMDL is needed. The table also lists any parameters with an approved TMDL for the discharge's stream reach (Category 4A). If a parameter is listed under Category 4A, TMDLs that will result in attainment of water quality standards and beneficial use support have been approved. See Section 3.3.10 below for discussion on dissolved oxygen in the Nestucca River.

Table 3-6: Category 5 and Category 4A Parameters

Water Quality Limited Parameters (Category 5)	
AU ID:	OR_EB_1710020302_01_107216
AU Name:	Nestucca River
AU Status:	Impaired
Year Listed	2002
Year Last Assessed	2022
Category 5 Parameters	Dissolved oxygen – spawn
Category 4A Parameters	
E. coli, Fecal Coliform, Temperature – year-round, Temperature – spawn.	

3.3.3 TMDL Wasteload Allocations

DEQ issued TMDLs for temperature and bacteria for the North Coast basin in 2003. WLAs from this TMDL that are applicable to the permittees are listed in the following table. Refer to section 3.3.7 for discussion of the temperature WLA, and section 3.3.8 for discussion of the bacteria WLA.

Table 3-7: Applicable WLAs

Parameter	WLA	Time Period
Temperature	Not to exceed 25 °C as a 7-day rolling average	Year-round
Bacteria	Geometric mean of 57 per 100 mL, no single sample to exceed the 90 th percentile of 182 per 100 mL.	Summer (June – September)
	Geometric mean of 126 per 100 mL, no single sample to exceed the 90 th percentile of 406 per 100 mL.	Fall-Winter-Spring (October – May)
Note: The TMDL also allows the limit to be expressed in terms of an excess thermal load. See discussion in Section 3.3.8, below.		

3.3.4 Pollutants of Concern

To ensure that a permit is protecting water quality, DEQ must identify pollutants of concern. These are pollutants that are expected to be present in the effluent at concentrations that could adversely impact water quality. DEQ uses the following information to identify pollutants of concern:

- Effluent monitoring data.
- Knowledge about the permittee's processes.
- Knowledge about the receiving stream water quality.
- Pollutants identified by applicable federal effluent limitation guidelines.

Based on EPA's NPDES permit application requirements, toxic pollutants of concern for domestic facilities are listed in the following table.

Table 3-8: Domestic Toxic Pollutants of Concern

Flow Rate	Pollutants
< 0.1 mgd	Total Residual Chlorine
≥ 0.1 mgd and < 1.0 mgd	Total Residual Chlorine, Total Ammonia Nitrogen
≥ 1.0 mgd	Total Residual Chlorine, Total Ammonia Nitrogen, Metals, Volatile Organic Compounds, Acid Extractable Compounds, Base Neutral Compounds

DEQ identified the following pollutants of concern for this facility listed in the following table.

Table 3-9: Pollutants of Concern

Pollutant	How was pollutant identified?
pH	Effluent Monitoring
Temperature	Effluent Monitoring
<i>E. coli</i>	Effluent Monitoring
Total Residual Chlorine	Effluent Monitoring

The sections below discuss the analyses that were conducted for the pollutants of concern to determine if water quality-based effluent limits are needed to meet water quality standards.

3.3.5 Regulatory Mixing Zone

The proposed permit contains a mixing zone as allowed per OAR 340-041-0053. The regulatory mixing zone from the existing permit is described as:

The allowable mixing zone is that portion of the Nestucca River contained within a band extending out fifty (50) feet from the south bank of the river and extending from a point fifty (50) feet upstream of the outfall to a point fifty (50) feet downstream of the outfall. The Zone of Immediate Dilution (ZID) shall be defined as that portion of the allowable mixing zone that is within five (5) feet of the point of discharge.

The proposed permit contains minor updates to the mixing zone description for clarity.

The Regulatory Mixing Zone (RMZ) is that portion of the Nestucca River contained within a band extending out fifty (50) feet from the south bank of the river and extending from a point fifty (50) feet upstream of the midpoint of the diffuser to a point fifty (50) feet downstream of the midpoint of the diffuser. The Zone of Immediate Dilution (ZID) is that portion of the allowable mixing zone that is within five (5) feet of the point of discharge.

The outfall extends about twenty feet from the left bank under low flow conditions. It consists of a 6-inch diameter steel pipe perforated by 3/8 x 5-inch slots on 8-inch spacing. The mixing zone study reported that effluent is likely discharged through the first few slots because of the low flow rates and so the discharge was simulated as a single port. The end of diffuser coordinates are 45.205958°, -123.893108°.

The dilution factors at the edge of the Regulatory Mixing Zone and Zone of Initial Dilution are shown in Table 3-10. These dilutions are based on a 2011 mixing zone study reviewed by DEQ. The mixing zone memo documenting this review is in a March 14, 2024 Mixing Zone Memo, as well as in a March 4, 2019 Mixing Zone Memo which is part of the administrative record.

Table 3-10: Mixing Zone Dilution Summary

Dilution Summary – Outfall 001 – Year-Round						
Water Quality Standard	Velocity		Effluent Flow (mgd)		Dilution Factor	Location
	Statistic	Flow	Statistic	Flow		
Aquatic Life, Acute	10 th percentile	0.10 m/s	☐ ADWDF x PF ☐ Max Daily Avg ☒ Other: ADWDF	0.04	13	ZID (5ft)
Aquatic Life, Chronic	50 th percentile	0.25 m/s	☒ ADWDF ☐ Max Monthly Avg ☐ Other:	0.04	156	RMZ (50 ft)
Human Health, Non-Carcinogen	50 th percentile	0.25 m/s	☒ ADWDF ☐ Max Monthly Avg ☐ Other:	0.04	156	RMZ (50 ft)
<i>ADWDF = Average dry weather design flow</i> <i>PF = Peaking factor (1.5)</i>						

3.3.6 pH

The pH criterion for this basin is 6.5 – 8.5 per OAR 340-041-0235(1)(b). The federal secondary treatment standards allow the permittee to discharge effluent with a pH between 6.0 and 9.0 provided the basin standard is met at the edge of the mixing zone. The pH range of 6.0 to 9.0 was utilized in a reasonable potential analysis for Outfall 001, along with effluent data collected from May 2020 through October 2023, and ambient river data collected from DEQ monitoring station 10523 in the Nestucca River, located upstream of the outfall. DEQ determined there is no reasonable potential for the discharge to exceed the pH criterion at the edge of the mixing zone. The proposed pH limits are 6.0 and 9.0, these limits are considered TBELs. The following table provides a summary of the data used for the analysis.

Table 3-11: pH Reasonable Potential Analysis

INPUT	Lower pH Criteria	Upper pH Criteria
1. Dilution at mixing zone boundary	156.0	156.0
2. Upstream characteristics		
a. Temperature (°C)	17.4	6.9
b. pH	7.2	7.6
c. Alkalinity (mg CaCO ₃ /L)	21.0	21.0
3. Effluent characteristics		
a. Temperature (°C)	21.5	15.5
b. pH (S.U.)	6.0	9.0
c. Alkalinity (mg CaCO ₃ /L)	134.6	134.6
4. Applicable pH criteria	6.5	8.5
pH at mixing zone boundary	7.0	7.6
Is there reasonable potential?	No	No
Proposed effluent limits	6.0	9.0
<u>Effluent data source:</u> NetDMR records from May-2020 to Oct-2023. Alkalinity default value used.		
<u>Ambient data source:</u> DEQ station 10523 (Nestucca R. at Cloverdale), January-2014 to November-2023.		

3.3.7 Temperature

3.3.7.1 Temperature Criteria OAR 340-041-0028

The following table summarizes the temperature criteria that apply at the discharge location along with whether the receiving stream is water quality-limited for temperature and whether a TMDL wasteload allocation has been assigned. Using this information, DEQ performed several analyses to determine if effluent limits were needed to comply with the temperature criteria.

Table 3-12: Temperature Criteria Information

Applicable Temperature Criterion	Core Cold Water 16°C (OAR 340-041-0028(4)(b))
Applicable dates: June 16 – September 14	
Salmon/Steelhead Spawning 13 °C? OAR 340-041-0028(4)(a)	☒ Yes ☐ No
Applicable dates: September 15 – June 15	
WQ-limited?	☒ Yes ☐ No
TMDL wasteload allocation assigned?	☒ Yes ☐ No
Applicable dates: Year-round	
TMDL based on natural conditions criterion?	☐ Yes ☒ No
Cold water summer protection criterion applies?	☐ Yes ☒ No
Cold water spawning protection applies?	☐ Yes ☒ No
Comments: The temperature WLA for CSD is expressed as a temperature limit of 25 °C, calculated as a 7-day rolling average.	

Water temperatures affect the life cycles of aquatic species and are a critical factor in maintaining and restoring healthy salmonid populations. The purpose of the temperature criteria in OAR 340-041-0028 is to protect designated, temperature-sensitive beneficial uses (including salmonid life cycle stages) from adverse warming due to human activities. The section of the Nestucca River that receives discharge from CSD has been designated as Core Cold-Water habitat for salmonids (OAR-340-041, Figure 230A), for the period June 16 through September 14. In addition, this section of the Nestucca River is designated for salmonid spawning for the time period September 15 through June 15 (OAR-340-041, Figure 230B). DEQ developed the temperature TMDL for the Nestucca Bay Watershed in 2002; in November 2006 DEQ revised the TMDL, including the temperature wasteload allocation for CSD. This TMDL includes a WLA, applicable year-round, for the CSD as a maximum allowable effluent temperature of 25 °C (77 °F). (The TMDL also cites Oregon's thermal plumes limitations, which are addressed below.) This temperature allocation covers both the Core Cold Water and the existing spawning designation periods and is applicable year-round. The TMDL WLA also allows for a limit to be expressed as an excess thermal load. For simplicity, the WLA is addressed in this permit as a temperature limit.

The North Coast Basin TMDL addendum states that WLAs may be recalculated using an updated heat load allocation if stream flow rates or effluent temperatures differ. Subsequent permit renewals or modifications may instead use an excess thermal load limit that considers ambient temperature and flow in its calculation.

Final effluent limits are listed in the following table.

Table 3-13: Temperature Criterion Effluent Limits

Effluent limit needed? ☒ Yes ☐ No
TMDL WLA Limit: 25 °C allowable effluent temperature
Applicable time period: Year-round
Temperature Criterion Limit: NA
Applicable time period: Dates ☒ NA
Comments:

3.3.7.2 Thermal Plume OAR 340-041-0053(2)(d)

In addition to compliance with the temperature criteria, OAR 340-041-0053(2)(d) contains thermal plume limitation provisions designed to prevent or minimize adverse effects to salmonids that may result from thermal plumes. The discharge was evaluated for compliance with these provisions as follows:

- OAR 340-041-0053(2)(d)(A): Impairment of an active salmonid spawning area where spawning redds are located or likely to be located. This adverse effect is prevented or minimized by limiting potential fish exposure to temperatures of 13 °C or more for salmon and steelhead, and 9 °C or more for bull trout.

Cloverdale STP Discharge: While this segment of the Nestucca River is identified as having salmonid spawning use, the facility's outfall discharges to a reach of the Nestucca River that is tidally influenced. The Oregon Department of Fish and Wildlife (ODFW) does not perform biological assessments of tidally influenced waters for the presence of spawning redds. According to ODFW, this condition makes it highly unlikely that any salmonids would spawn in that location. Additionally, the regional biologist has personally examined the Nestucca River in the vicinity of the facility's outfall and has not observed any redds. Therefore, there is no spawning impairment issue to consider for Cloverdale's discharge. Since the likely location of any active salmonid spawning areas would be outside of the mixing zone, the impairment of an active spawning area is prevented or minimized. DEQ did not include a temperature limit or condition as a result of this RPA.

- OAR 340-041-0053(2)(d)(B): Acute impairment or instantaneous lethality is prevented or minimized by limiting potential fish exposure to temperatures of 32 °C or more to less than 2 seconds.

Cloverdale STP Discharge: The maximum measured effluent temperature reported since the permit was last renewed in 2019 was 22.9 °C, well below the temperature expected to cause acute impairment or instantaneous lethality. DEQ did not include a temperature limit or condition as a result of this RPA.

- OAR 340-041-0053(2)(d)(C): Thermal shock caused by a sudden increase in water temperature is prevented or minimized by limiting potential fish exposure to temperatures of 25 °C or more to less than 5% of the cross-section of 100% of the 7Q10 flow of the water body.

Cloverdale STP discharge: The maximum measured effluent temperature from the Cloverdale facility since the permit was renewed in 2019 was 22.9 °C, lower than the 25 °C temperature that may cause thermal shock. Since the maximum effluent temperature is below 25 °C, thermal shock caused by the discharge is prevented or minimized. DEQ did not add a temperature limit or condition as a result of this RPA.

- OAR 340-041-0053(2)(d)(D): Unless ambient temperature is 21 °C or greater, migration blockage is prevented or minimized by limiting potential fish exposure to temperatures of 21 °C or more to less than 25% of the cross-section of 100% of the 7Q10 flow of the water body.

Cloverdale STP discharge: The maximum seven day moving average effluent temperature calculated from the Cloverdale facility since DEQ renewed the permit in 2019 was 22.1°C. The maximum seven day moving average river temperature calculated from 2015 through 2023 was 19.9°C. An analysis related to migration blockage, included in Appendix A, indicates that when the effluent plume reaches 25% of the receiving stream's cross-sectional area, the plume's temperature will not be above 21.0 °C, and migration blockage caused by the discharge is therefore prevented or minimized. DEQ did not add a temperature limit or condition as a result of this RPA.

Effluent limits needed to comply with the thermal plume requirements are shown in the following table.

Table 3-14: Thermal Plume Effluent Limit

Effluent limit needed? ☐ Yes ☒ No
Calculated limit: NA
Applicable timeframe: NA
Comments:

3.3.8 Bacteria

OAR 340-041-0009(6)(b) requires discharges of bacteria into freshwaters meet a monthly geometric mean of 126 *E. coli* per 100 mL, with no single sample exceeding 406 *E. coli* per 100 mL. On May 13, 2002 EPA approved DEQ's Wilson-Trask-Nestucca Subbasin TMDL. This TMDL established an *E. coli* wasteload allocation for the Cloverdale facility of 406 *E. coli* per 100 mL daily maximum and 126 *E. coli* per 100 mL monthly geometric mean for the summer season. The TMDL established a WLA of 182 *E. coli* per 100 mL daily maximum and 57 *E. coli* per 100 mL monthly geometric mean for the remainder of the year.

The current permit has year-round *E. coli* limits of 182 *E. coli* per 100 mL daily maximum and 57 *E. coli* per 100 mL monthly geometric mean. DEQ reviewed *E. coli* data from monthly discharge monitoring reports for December 2019 through February 2024. During this period the maximum reported *E. coli* value was 172 *E. coli* per 100 mL (June-2021). The average was 8 *E. coli* per 100 mL, trending well below the established limits and indicating the observed maximum was an outlier from typical operations.

The current limits are more stringent than the limits in OAR 340-041-0009(6)(b) and will be retained in the renewal permit. If a single sample exceeds 182 *E. coli* per 100 mL, then the permittee may take five consecutive re-samples at four-hour intervals beginning within 28 hours after the original sample was taken. If the geometric mean of the five re-samples is less than or equal to 57 organisms per 100 mL, a violation is not triggered.

Table 3-15: Proposed *E. coli* Limits

<i>E. coli</i> (#/100 ml)	Geometric Mean	Maximum
Existing Limit	57	182
Proposed Limit	57	182

3.3.9 Dissolved Oxygen

The Nestucca River is listed as impaired for dissolved oxygen during the spawning season (September 15 – June 15) in DEQ’s 303(d) list. DEQ performed a dissolved oxygen (Streeter-Phelps) analysis to determine if the discharge has the potential to cause a measurable dissolved oxygen deficit in the Nestucca River. DEQ considers a dissolved oxygen reduction of less than 0.10 mg/L to be “no measurable reduction”. DEQ applied effluent data from the facility, ambient data from DEQ station 10523 (Nestucca River at Cloverdale) and stream flow and hydraulic geometry data from the 2011 mixing zone study ¹ to perform the analysis. Conservative assumptions were made for effluent dissolved oxygen, ammonia and total Kjeldahl nitrogen due to a lack of available data. Additional monitoring for these parameters is proposed in this permit renewal to inform this analysis for future permit renewals. DEQ assumed a value of 5 mg/L for dissolved oxygen and 25 mg/L for ammonia and total Kjeldahl nitrogen levels. The analysis (Appendix B) shows a maximum reduction in dissolved oxygen of 0.01 mg/L occurs seven miles downstream where the river enters the Pacific Ocean. This meets the definition of “no measurable reduction”. There is no need to impose more stringent BOD₅ limits nor ammonia limits.

3.3.10 Toxic Pollutants

DEQ typically performs the reasonable potential analysis for toxics according to EPA guidance provided in the Technical Support Document for Water Quality-Based Toxics Control (TSD) (Office of Water Enforcement and Permits, U.S. EPA, March 1991). The factors incorporated into this analysis include:

1. Effluent concentrations and variability

¹ Mixing Zone Modeling Study for Cloverdale Sanitary District. 2011. MixZon, Inc.

2. Water quality criteria for aquatic life and human health
3. Receiving water concentrations
4. Receiving water dilution (if applicable)

DEQ performs these analyses using spreadsheets that incorporate EPA's statistical methodology. The following sections describe the analyses for various toxic pollutants below.

3.3.10.1 Total Residual Chlorine

The existing permit contains chlorine limits. New chlorine limits were calculated based on updated information. The newly calculated limits are more stringent than the existing limits so the new limits are being proposed. Proposed limits are listed in the following table. A review of DMR data showed that the permittee should be able to meet these limits upon permit issuance and therefore no compliance schedule is needed.

Table 3-16: Proposed Chlorine Limits

	Chronic (mg/L)	Acute (mg/L)
Chlorine Criteria	0.011	0.019
	Average Monthly Limit (mg/L)	Maximum Daily Limit (mg/L)
Existing Limit	0.10	0.25
Calculated Limit	0.09	0.25
Proposed Limit	0.09	0.25
<u>Effluent data source:</u>		
Current permit maximum daily limit		
<u>Receiving water data source:</u> Assumed to be zero		

3.4 Antibacksliding

The proposed permit complies with the antibacksliding provisions of CWA sections 402(o) and 303(d)(4) and 40 CFR 122.44(l). The proposed limits are the same or more stringent than the existing permit so the antibacksliding provision is satisfied.

3.5 Antidegradation

DEQ must ensure the permit complies with Oregon's antidegradation policy found in OAR 340-041-0004. This policy is designed to protect water quality by limiting unnecessary degradation from new or increased sources of pollution.

DEQ has performed an antidegradation review for this discharge. The proposed permit contains the same or more stringent discharge loadings as the existing permit. Permit renewals with the same or more stringent discharge loadings as the previous permit are not considered to lower water quality from the existing condition. DEQ is not aware of any information that existing limits are not protecting the receiving stream's designated beneficial uses. DEQ is also not aware of any existing uses present within the water body that are not currently protected by standards developed to protect the designated uses. Therefore, DEQ has determined that the proposed discharge complies with DEQ's antidegradation policy. DEQ's antidegradation worksheet for this permit renewal is available upon request.

3.6 Whole Effluent Toxicity

DEQ does not require whole effluent toxicity testing (WET) for minor domestic facilities because concentrations of toxics are typically very low and WET testing is not warranted.

3.7 Groundwater

DEQ has not identified any groundwater concerns associated with this facility. Treatment occurs in watertight, above-ground tanks. The asphalt-lined surge basin contains peak flows as needed, and usually remains empty. The treatment facility does not have any basins, ponds or lagoons that have the potential to leach into the groundwater. No groundwater monitoring or limits are required.

4. Schedule A: Other Limitations

4.1 Mixing Zone

Schedule A describes the regulatory mixing zone as discussed above in section 3.

4.2 Biosolids

The STP currently manages all of its wastewater solids at the Port of Tillamook Bay. If during the term of this permit the STP decides that it wants to treat and land apply their wastewater solids as biosolids, the facility will need to develop a Biosolids Management Plan. At a minimum, this plan will need to detail that the facility's wastewater solids will meet biosolids pollutant limits defined in OAR 340-050 and 40 CFR Part 503 and will be treated to meet state and federal criteria for pathogen reduction (Class A or Class B biosolids) and vector attraction reduction. The plan will also be subject to public review and comment before it may be implemented.

For all Class B biosolids to be land applied under this permit, Schedule A of the permit requires the facility to apply biosolids according to their Biosolids Management Plan. In addition, Schedule A requires the following:

- The biosolids must be land applied at or below agronomic rates.

- The permittee must have written site authorization for each location from DEQ before land applying and abide by the restrictions for each site.
- Prior to application, the permittee must ensure that biosolids meet one of the pathogen reduction standards under 40 CFR 503.32 and one of the vector attraction reduction standards under 40 CFR 503.33.
- The permittee must not apply biosolids containing pollutants in excess of the ceiling concentrations for the nine metals shown in Schedule A of the permit.

It should be noted that the facility will not need to develop a Biosolids Management Plan for transfer of its wastewater solids or sewage sludge to other DEQ-approved facilities permitted to process, manage, or dispose of these types of residuals.

5. Schedule B: Monitoring and Reporting Requirements

Schedule B of the permit describes the minimum monitoring and reporting necessary to demonstrate compliance with the proposed effluent limits. In addition, monitoring for other parameters is required to better characterize the effluent quality and the receiving stream. This data will be used during the next permit renewal. Detailed monitoring frequency and reporting requirements are in Schedule B of the proposed permit. The required monitoring, reporting and frequency for many of the parameters are based on DEQ's monitoring and reporting matrix guidelines, permit writer judgment, and to ensure the needed data is available for the next permit renewal.

6. Schedule C: Compliance Schedule

The permittee is expected to meet all effluent limits once the permit becomes effective and therefore a compliance schedule is not needed.

7. Schedule D: Special Conditions

The proposed permit contains the following special conditions:

7.1 Inflow and Infiltration

A requirement to submit an updated inflow and infiltration report in order to reduce groundwater and stormwater from entering the collection system.

7.2 Emergency Response and Public Notification Plan

A requirement to develop and submit an emergency and spill response plan or ensure the existing one is current per General Condition B.8 in Schedule F.

7.3 Exempt Wastewater Reuse at the Treatment System

A condition that exempts the permit holder from the recycled water requirements in OAR 340-055, when recycled water is used for landscape irrigation at the treatment facility or for in-plant processes, such as in plant maintenance activities.

7.4 Wastewater Solids Annual Report

This condition requires the permittee to submit a Wastewater Solids Annual Report each year documenting removal of wastewater solids from the facility during the previous calendar year.

7.5 Biosolids Management Plan

A requirement to manage all biosolids in accordance with a DEQ-approved biosolids management plan and land application plan. The biosolids management plan and the land application plan must meet the requirements in OAR 340-050-0031 and describe where and how the land application of biosolids is managed to protect public health and the environment.

7.6 Wastewater Solids Transfers

A condition that allows the facility to transfer treated or untreated wastewater solids to other in-state or out-of-state facilities that are permitted to accept the wastewater solids.

7.7 Hauled Waste Control Plan

A condition that allows the acceptance of hauled waste according to a DEQ-approved hauled waste plan. The hauled waste plan ensures waste is not accepted that could negatively impact the treatment capabilities of the facility.

7.8 Operator Certification

The permit holder is required to have a certified operator consistent with the size and type of treatment plant covered by the permit per OAR 340-049-0005. This special condition describes the requirements relating to operator certification.

7.9 Industrial User Survey

This condition requires the permittee to conduct or update an industrial user survey. The purpose of the survey is to identify whether there are any categorical industrial users discharging to the POTW, and ensure regulatory oversight of these discharges.

7.10 Outfall Inspection

A condition that requires the permittee to inspect the outfall and submit a report regarding its condition.

7.11 Boat Ramp Signage

A condition that requires the permittee to post a sign at the Cloverdale boat ramp immediately downstream of the outfall if effluent monitoring shows a bacteria limit exceedance, a disinfection system malfunction, or other treatment plant problems that could adversely affect public health.

8. Schedule F: NPDES General Conditions

Schedule F contains the following general conditions that apply to all NPDES permittees. These conditions are reviewed by EPA on a regular basis.

- Section A. Standard Conditions
- Section B. Operation and Maintenance of Pollution Controls
- Section C. Monitoring and Records
- Section D. Reporting Requirements
- Section E. Definitions

Appendix A: Reasonable Potential Analyses - Temperature

Facility Name: CLOVERDALE STP		Date: 3.26.2024	
OAR 340-041-0053(2)(d)(C): Thermal Shock		OAR 340-041-0053(2)(d)(D): Migration Blockage	
25 deg C at 5% of the stream cross section		21 deg C at 25% of the stream cross section	
Enter data into white cells below:		Enter data into white cells below:	
7Q10 = 85 cfs	Data Metric/Source	7Q10 = 85 cfs	Data Metric/Source
Ambient Temperature = 19.9 °C	7Q10 estimate form 2024 MZ Memo	Ambient Temperature = 19.9 °C	7Q10 estimate form 2024 MZ Memo
Effluent Flow = 0.06 mgd	AWQMS, average of 7DADM for June-Oct,	Effluent Flow = 0.06 mgd	AWQMS, average of 7DADM for June-Oct,
Max Daily Effluent Temperature = 22.9 °C	ADWDF = 0.04; PF = 0.06 mgd	Max 7dAM Effluent Temperature = 22.1 °C	ADWDF = 0.04; PF = 0.06 mgd
	Max of 7DADM for May-Oct, 2019-23		Max of 7DADM for May-Oct, 2019-23
5% of 7Q10 = 4.3 cfs		25% of 7Q10 = 21.3 cfs	
5% dilution = 47	dilution = (Qr*0.05)/Qe + 1	25% dilution = 230	dilution = (Qr*0.25)/Qe + 1
Temperature at 5% cross section = 20.0 °C	No Reasonable Potential	Temperature at 25% cross section = 19.9 °C	No Reasonable Potential
		ΔT at 25% Stream Flow = 0.010 °C	

Figure A-1: Temperature Thermal Plume RPA: Thermal Shock & Migration Blockage

or Dissolve

$$D = D_o \exp(-K_d \frac{x}{u}) + \frac{K_d}{K_a - K_r} \left[\exp(-K_r \frac{x}{u}) - \exp(-K_a \frac{x}{u}) \right] L_o + \frac{K_n}{K_a - K_n} \left[\exp(-K_n \frac{x}{u}) - \exp(-K_a \frac{x}{u}) \right] L_o^n + (1 - \exp(-K_a \frac{x}{u})) (\frac{S_B}{HK_a})$$