



Oregon

Tina Kotek, Governor

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Northwest Region Portland Office/Water Quality
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May 5, 2025

COL L. Dale
US Army Corps of Engineers, Bonneville Lock and Dam
P.O. Box 2946
Portland, OR 97208-2946

**Re: NPDES Permit Public Notice Period
Comments Due: June 10, 2025, 5 p.m.**

File no. 90980

Permit no. 101793

EPA no. OR0022624

Facility: Bonneville; USACOE – Tanner Creek WWTP, Exit 4 Interstate 84, Cascade Locks
Multnomah County

Enclosed please find the Public Notice drafts for your proposed National Pollutant Discharge Elimination System permit including a copy of the public notice, permit, and fact sheet. Please be aware that the US Army Corps of Engineers, Bonneville Lock and Dam may provide additional comment on the permit during this time and submit 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 June 10, 2025**. DEQ will hold a public hearing if DEQ receives written requests for a hearing during the public comment period from at least 10 people, or from an organization representing 10 or more people. DEQ gives equal weight to written and oral comments. 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.

Sincerely,

Trinh Hansen
Water Quality Permit Coordinator
Western Region, Salem Office

cc: NPDES Permit Issuance E-File, Water Quality Division, DEQ
Mike Pinney, Portland, DEQ
Christopher Patton, USACE
Caron Freels, USACE
ORMS



PUBLIC NOTICE

Date posted: 5/5/25

DEQ Requests Comments on U.S. Army Corps of Engineers Bonneville Lock and Dam, Tanner Creek Wastewater Treatment Plant's Proposed Water Quality Permit Renewal

HOW TO PROVIDE PUBLIC COMMENT

Facility name: U.S. Army Corps of Engineers Bonneville Lock and Dam, Tanner Creek Wastewater Treatment Plant

Permit type: National Pollutant Discharge Elimination System permit

Comments due by: June 10, 2025 at 5 p.m.

Send written comments to: Trinh Hansen, 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 U.S. Army Corps of Engineers Bonneville Lock and Dam, Tanner Creek Wastewater Treatment Plant's proposed water quality permit renewal, 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 Tanner Creek Wastewater Treatment Plant to discharge wastewater to the Columbia River at Bonneville Lock and Dam.

About the facility

The U.S. Army Corps of Engineers has applied for a water quality permit renewal for the Tanner Creek Wastewater Treatment Plant located at Bonneville Lock and Dam in Cascade Locks. DEQ last renewed this permit on April 3, 2012. This facility treats domestic wastewater from staff, visitor, and fish hatchery facilities at Bonneville Lock and Dam.

The facility discharges to the Columbia River near Bonneville Lock and Dam. The Columbia 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 Columbia and Lower Snake Rivers Total Maximum Daily Load, or TMDL, for temperature.

The most recent DEQ inspection of the Tanner Creek Wastewater Treatment Plant was Nov. 4, 2024. DEQ did not identify violations during this inspection. Tanner Creek Wastewater Treatment Plant has had zero water quality violations in the past permit term.

Translation or other formats

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

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

U.S. Army Corps of Engineers also has an industrial NPDES permit for the Bonneville Lock and Dam facility (#102768).

What types of pollutants does the permit regulate?

This permit sets conditions for how the facility manages the following pollutants: biochemical oxygen demand, total suspended solids, total residual chlorine, thermal load (temperature), pH, and *E. coli*.

DEQ also requires the permittee to maintain a biosolids management and land application plan if it decides to produce biosolids. This plan would be drafted separately from this permit renewal and is not part of this public notice.

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

Yes. The draft permit proposes new effluent limits for total residual chlorine and thermal load (temperature) and less stringent limits for total suspended solids and biochemical oxygen demand percent removal.

Pollutant	Change
Total Residual Chlorine	New
Thermal Load (Temperature)	New
TSS and BOD ₅ percent removal	Less stringent

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 reviewed the renewal application, all previous permits and fact sheets and associated administrative records, regional water quality data and research, discharge monitoring reports and attachments submitted by the permittee, all available mixing zone studies and memos, all available compliance and enforcement documents in the administrative record, records of communications with the permittee and other documents contained within the administrative record. 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 503-378-5055 or trinh.hansen@deq.oregon.gov with questions or to view documents in person at a DEQ office.

Non-discrimination statement

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



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM WASTE DISCHARGE PERMIT

Oregon Department of Environmental Quality
Northwest Region – Portland 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:

US Army Corps of Engineers
Bonneville Lock and Dam
PO Box 150
Cascade Locks, OR 97014

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Outfall Number	Outfall Location
Treated Wastewater	001	45.631644, -121.964426

FACILITY LOCATION:

Tanner Creek Wastewater Treatment Plant
Exit 40 Interstate 84
Cascade Locks, OR 97014
County: Multnomah
EPA Permit Type: Minor

RECEIVING STREAM INFORMATION:

Receiving stream/NHD name: Columbia River
USGS 12-Digit HUC: 170800010801
OWRD Administrative Basin: Main Stem Columbia River
NHD Reach Code & % along reach: 17080001000233, 85.37%
ODEQ LLID & RM: 1240483462464, RM 140.46
Integrated Report AU ID: OR_SR_1708000108_88_100674

Issued in response to Application No. 956586 received August 29, 2016. This permit is issued based on the land use findings in the permit record.

DRAFT

DRAFT

DRAFT (six months after
issuance date)

Tiffany Yelton-Bram, Manager
Northwest Region

Issuance Date

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.

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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 (July 1 to January 31)	mg/L	20	30	-
	lb/day	33	50	67
	% removal	65	65	-
TSS (July 1 to January 31)	mg/L	20	30	-
	lb/day	33	50	67
	% removal	65	65	-
BOD ₅ (February 1 to June 30)	mg/L	30	45	-
	lb/day	50	75	100
	% removal	65	65	-
TSS (February 1 to June 30)	mg/L	30	45	-
	lb/day	50	75	100
	% removal	65	65	-
Total Residual Chlorine (Final) (See note a.)	mg/L	0.42	-	1.10
pH	SU	Instantaneous limit between a daily minimum of 6.0 and a daily maximum of 9.0		
<i>E. coli</i> (See note b.)	#/100 mL	Must not exceed a monthly geometric mean of 126, no single sample may exceed 406		
Thermal Load (June 1 to October 31) (see note c.)	million kcal/day	8.31 as a monthly average		
Notes:				
a. The final total residual chlorine limit is effective after completion of the compliance schedule in Schedule C.				
b. If a single sample exceeds 406 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 126 <i>E. coli</i> organisms/100 mL demonstrates compliance with the limit.				
c. The monthly average Thermal Load discharged must be calculated as directed in note e of Table B3.				

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 defined as that portion of the Columbia River extending 10 feet downstream from the mid-point of the diffuser and a width of 92 feet centered on the diffuser mid-point. The Zone of Immediate Dilution (ZID) is that portion of the Columbia River extending 2 feet downstream and 40 feet wide centered on the diffuser mid-point.

3. Biosolids

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

- a. Biosolids Management Plan - The permittee must manage biosolids in accordance with its DEQ-approved Biosolids Management Plan and Land Application Plan (see Schedule D)
- b. 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 the exceptional quality biosolids, the origin must be identified and biosolids analyses must be available to applicators 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 land 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 meet 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 land apply these biosolids in accordance with their approved Biosolids Management and Land Application Site Authorization (see Schedule D).

Table A2: Biosolids Limits

Pollutant (See note a.)	Ceiling concentrations (mg/kg)	Pollutant concentrations (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, B3, and B4 Influent Monitoring, Effluent Monitoring, and Receiving Water Monitoring	Monthly	By the 15th 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
Mixing Zone Study (see Schedule D)	One time	Submit by XX/15/2029 (four years after permit issuance)	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) – Only required if the permittee produces and distributes biosolids under a DEQ- approved biosolids management plan	Annually	By February 19 of the following year	Electronic copy in a DEQ- approved form	Attached via electronic reporting as directed by DEQ DEQ Biosolids Program Coordinator
Hauled Waste Annual Report (see Schedule D) - Only required if facility has a Hauled Waste Control Plan, or otherwise accepts hauled waste.	Annually	January 15	Electronic 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/15/2028 In the 3 rd year of the permit, one year prior to mixing zone study report	Electronic copy in a DEQ- approved format	Attached via electronic reporting as directed by DEQ

Reporting Requirement	Frequency	Due Date (See note a.)	Report Form (See note b.)	Submit To:
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.				

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.

- iv. The permittee must develop a receiving water sampling and analysis plan that incorporates QA/QC prior to sampling. This plan must be kept at the facility and made available to DEQ upon request.
- 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, bacteria, 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 at the headworks prior to the oxidation ditch and report results in accordance with Table B1 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.)
Flow (50050)	MGD	Year-round	Daily	Metered	1. Monthly Average 2. Daily Maximum
BOD ₅ (00310)	mg/L	Year-round	2/week	24-hour composite	Monthly Average
TSS (00530)	mg/L	Year-round	2/week	24-hour composite	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 end of the chlorine contact basin following disinfection, just prior to discharge 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/week	24-hour composite	1. Monthly Average 2. Maximum Weekly Average
BOD ₅ (00310)	lb/day	Year-round	2/week	Calculation	1. Daily Maximum 2. Monthly Average 3. Maximum Weekly Average
BOD ₅ percent removal (See note c.) (81010)	%	Year-round	Monthly	Calculation based on monthly average BOD ₅ concentration values	Monthly Average
TSS (00530)	mg/L	Year-round	2/week	24-hour composite	1. Monthly Average 2. Maximum Weekly Average
TSS (00530)	lb/day	Year-round	2/week	Calculation	1. Daily Maximum 2. Monthly Average 3. Maximum Weekly Average
TSS percent removal (81011) (See note c.)	%	Year-round	Monthly	Calculation based on monthly average TSS concentration values	Monthly Average

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a.)	Report Statistic (See note b.)
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
Temperature (00010)	°C	Year-round	3/week	Grab (See note d.)	1. Daily Maximum 2. Daily Average 3. Monthly Average 4. 7-day Rolling Average of Daily Maximum
Thermal Load Discharge (00015)	million kcal/day	June 1 – Oct 31	Daily	Calculation (See note e.)	1. Daily Maximum 2. Monthly Average
<i>E. coli</i> (51040)	#/100 mL	Year-round	2/week	Grab	1. Daily Maximum 2. Monthly Geometric Mean
Total ammonia (as N) (00610)	mg/L	Year-round	Monthly	24-hour composite	Monthly Maximum
Alkalinity as CaCO ₃ (00410)	mg/L	Year-round	Quarterly	24-hour composite	Quarterly Maximum
Chlorine used (81400)	lb/day	Year-round	Daily	Scale reading	Monthly Average
Chlorine, Total Residual prior to dechlorination	mg/L	Year-round	Daily	Grab	Maintain records on-site
Dissolved Oxygen (00300)	mg/L	Third year of permit cycle 2028	Quarterly	24-hour composite (See note f.)	Quarterly Minimum
Total Kjeldahl Nitrogen (TKN) (00625)	mg/L	Third year of permit cycle 2028	Quarterly	24-hour composite	Quarterly Maximum
Nitrate (NO ₃) Plus Nitrite (NO ₂) Nitrogen (00630)	mg/L	Third year of permit cycle 2028	Quarterly	24-hour composite	Quarterly Maximum
Oil and Grease (00556)	mg/L	Third year of permit cycle 2028	Quarterly	Grab	Quarterly Maximum

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a.)	Report Statistic (See note b.)
Total Phosphorus (00665)	mg/L	Third year of permit cycle 2028	Quarterly	24-hour composite	Quarterly Maximum
Total Dissolved Solids (70295)	mg/L	Third year of permit cycle 2028	Quarterly	24-hour composite	Quarterly Maximum

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. 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.
- b. 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.
- c. 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.

- d. The permittee must perform temperature grab measurements daily between 12 PM and 5 PM.
- e. The daily thermal load (TL) discharged must be calculated using the daily average effluent temperature and the corresponding daily average effluent flow using the formula below.

The monthly average is then calculated from the daily TLs.

The daily TL is calculated as follows:

$$TL = 3.78 * Q_e * T_e$$

Where:

TL = Daily Thermal Load (million kcal/day)

Q_e = Daily Average Effluent Flow (MGD)

T_e = Daily Average Effluent Temperature (°C)

- f. 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.

- b. The permittee must monitor the Columbia River and report the results in accordance with Table B1 and the table below. The permittee must collect samples such that the effluent does not impact the samples (e.g., upstream for riverine discharges).

Table B4: Receiving Stream Monitoring (Columbia River)

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type / Required Action	Report Statistic (See note a.)
Total ammonia (as N) (00610)	mg/L	Year-round	Quarterly	Grab	Quarterly Maximum
Note:					
a. 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.					

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 B5: 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 B6.	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 B6.	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 B6.	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 B6.	As described in DEQ-approved Biosolids Management Plan

Item or Parameter	Minimum Frequency	Sample Type
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 B6: 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)

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SCHEDULE C: COMPLIANCE SCHEDULE

1. Compliance Schedule to Meet Final Effluent Limits

The permittee must comply with the following schedule:

Table C1: Total Residual Chlorine Compliance Schedule

Compliance Date:	Requirement:
By XX/XX/2025 Within 3 months of permit effective date	The permittee must submit to DEQ an optimization study outlining feasible operational changes that can be made to the current treatment process at Tanner Creek WWTP to maximize reductions of total residual chlorine.
By XX/XX/2026 Within 6 months of permit effective date	The permittee must begin implementation of the planned changes outlined in the optimization study and must notify DEQ regarding implementation.
By XX/XX/2026 Within 12 months of permit effective date	The permittee must submit to DEQ a written progress report outlining the progress made towards achieving final effluent limitations. The permittee must include in the report a draft plan and timeline for achieving final effluent limits based on the results of the implementation of the optimization study. If needed, the draft plan must also include a design memorandum for necessary facilities upgrades in order to achieve final effluent limits for total residual chlorine. Permittee must revise the draft plan and timeline in accordance with DEQ comments within 60 days of receiving DEQ comments.
By XX/XX/2027 Within 18 months of permit effective date	The permittee must submit to DEQ a written progress report outlining the progress made towards achieving final effluent limitations and the permittee must begin implementation of the final plan for achieving final effluent limits.
By XX/XX/2027 Within 2 years of permit effective date	The permittee must achieve compliance with the final effluent limits for total residual chlorine in Schedule A of this permit.

2. Responsibility to Meet Compliance Dates

No later than 14 days following each compliance date listed in the table above, the permittee must notify DEQ in writing of its compliance or noncompliance with the requirements. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and a discussion of the likelihood of meeting the next scheduled requirement(s).

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. Mixing Zone Study

By no later than the date specified in Table B1, the permittee must submit a level 1 mixing zone study for Outfall 001. (Level 1 mixing zone study requirements are described in DEQ's Mixing Zone Internal Management Directive).

3. 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.

4. 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 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.

5. 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.

6. 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.

7. 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.

8. 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.

9. Hauled Waste Annual Report

If the permittee has a Hauled Waste Control Plan, or otherwise accepts hauled waste, the permittee must submit an annual report of hauled waste received by the POTW. This report, if required, must be submitted as described in Table B1. This report must include the date, time, type, and amount received each time the POTW accepts hauled waste. Hauled waste must be described in the permittee's Hauled Waste Control Plan.

10. 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 full-time by one or more operators who hold a valid certificate for the type of wastewater treatment or wastewater collection system, 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.

11. **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 all ports are intact, clear and fully functional. The inspection must verify the latitude and longitude of the outfall end pipe and/or diffuser ports. The permittee must submit a written report to DEQ regarding the results of the outfall inspection by the date in Table B1, one year prior to the mixing zone study report submission. 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.

SCHEDULE E: PRETREATMENT ACTIVITIES

A pretreatment program is not part of this permit.

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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/day* 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

USACE Tanner Creek Wastewater Treatment Plant

Permittee	US Army Corps of Engineers Tanner Creek Wastewater Treatment Plant at Bonneville Lock and Dam PO Box 150 Cascade Locks, OR 97014
Existing Permit Information	File Number: 90980 Permit Number: 101793 EPA Reference Number: OR0022624 Category: Domestic Class: Minor Expiration Date: 2/28/2017
Permittee Contact	Christopher Patton Operator (541) 374-3872 Bonneville Lock and Dam Cascade Locks, OR 97014
Receiving Water Information	Receiving stream/NHD name: Columbia River USGS 12-Digit HUC: 170800010801 OWRD Administrative Basin: Main Stem Columbia River NHD Reach Code & % along reach: 17080001000233, 85.37% ODEQ LLID & RM: 1240483462464, RM 140.46 Integrated Report AU ID: OR_SR_1708000108_88_100674
Proposed Action	Permit Renewal Application Number: 956586 Date Application Received: 8/29/2016
Permit Writer	Olivia Stoken (971) 867-1077 Date Prepared: 5/2/2025

NPDES Permit Fact Sheet

USACE Tanner Creek Wastewater Treatment Plant

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NPDES Permit Renewal Fact Sheet

USACE Tanner Creek Wastewater Treatment Plant

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:

Schedule A:

- New limits for total residual chlorine have been added to Table A1.
- The thermal load wasteload allocation from the Columbia and Lower Snake Rivers Temperature TMDL has been added as a limit to Table A1.
- Percent removal limits for TSS and BOD₅ have been updated in Table A1.

Schedule B:

- Added monitoring for influent pH.
- Added monitoring for effluent temperature, thermal load discharge, total ammonia, alkalinity, chlorine used, total residual chlorine prior to dichlorination, dissolved oxygen, total kjeldhal nitrogen, nitrate plus nitrite nitrogen, oil and grease, total phosphorus, and total dissolved solids.
- Receiving water body monitoring in the Columbia River has been added in Table B4.

Schedule C:

- A compliance schedule for total residual chlorine has been added in Table C1.

Schedule D:

- Special conditions added to proposed permit include:
 - 1. Inflow and Infiltration,
 - 2. Mixing Zone Study,
 - 3. Emergency Response and Public Notification Plan,
 - 4. Exempt Wastewater Reuse at the Treatment System,
 - 5. Wastewater Solids Annual Report,
 - 7. Wastewater Solids Transfers,

- 8. Hauled Waste Control Plan,
- 9. Hauled Waste Annual Report, and
- 11. Outfall Inspection.
- Special conditions removed from the proposed permit include Spill/Emergency Response Plan.

Schedule F:

- Updated to current format

2. Facility Description

2.1 Wastewater Facility

The Tanner Creek Wastewater Treatment Plant (WWTP) is a federal sewage treatment facility owned and operated by the U.S. Army Corps of Engineers (USACE). The facility was constructed in 1975 to replace a series of septic tanks that were installed during the construction of Bonneville Lock and Dam in the 1930s. Wastewater sources include the USACE workforce buildings, visitor facilities, and the Bonneville Fish Hatchery. The total population served is about 300 people. Originally, the facility was sized for 0.06 MGD of domestic flows and 0.11 MGD of fish hatchery wastes with an average dry weather flow of 0.20 MGD, but flows have been significantly reduced in recent years due to reductions of on-site staff and visitors caused by the COVID-19 pandemic.

Wastewater from Bonneville facilities in Oregon and Washington is brought to the WWTP by a series of eight lift stations. Primary and secondary treatment occurs in an oxidation ditch via an activated sludge process. Aerators in the oxidation ditch provide circulation and oxygen transfer. Treated effluent is transferred via gravity from the oxidation ditch to a single clarifier. Clarified effluent is decanted, disinfected in-line with chlorine, and then flows via gravity to a chlorine contact basin. There is no dechlorination prior to discharge through Outfall 001. Waste sludge can be pumped from the clarifier to two digester basins or can be sent back to the oxidation ditch as return activated sludge. Waste sludge is removed from the digesters annually and disposed of via landfill.

Outfall 001 discharges treated effluent into the Columbia River at river mile 140.46 (DEQ LLID). Previous permits located the outfall at river mile 146.1 using NOAA charts. The 8-inch diameter iron effluent pipe spans 432 feet from the shore and terminates in a four-port diffuser located on the riverbed. Diffuser ports are 2 inches in diameter and water depth above the diffuser averages approximately 80 feet.



Figure 2-1: Facility Site Map

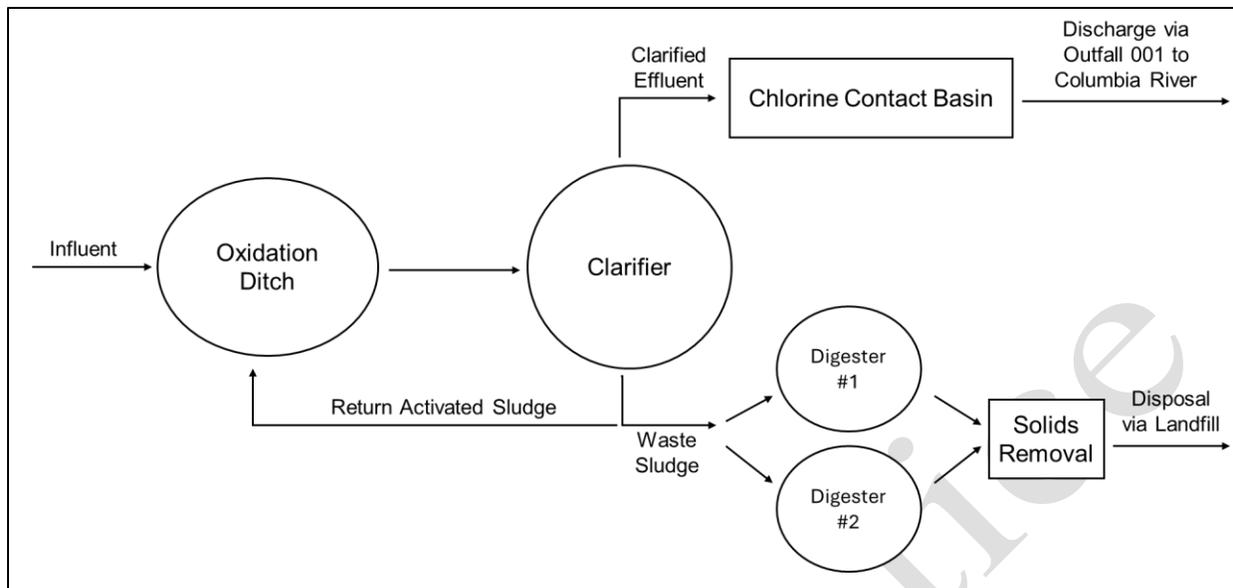


Figure 2-2: Facility Line Drawing

Table 2-1: List of Outfalls

Outfall Number	Type of Waste	Lat/Long
001	Treated Wastewater	45.631644, -121.964426

2.2 Stormwater

Stormwater is not addressed in this permit. A 1200-Z Industrial Stormwater permit not required for facilities with a design flow of less than 1 MGD.

2.3 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 are based on both the available technology to control the pollutants and the water quality standards applicable to 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 water, DEQ must include a WQBEL in the permit.

3.1 Existing Effluent Limits

The table below shows the limits contained in the existing permit.

Table 3-1: Existing Effluent Limits

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
BOD ₅ (February 1 to June 30)	mg/L	30	45	-
	lb/day	50	75	100
	% removal	85	-	-
TSS (February 1 to June 30)	mg/L	30	45	-
	lb/day	50	75	100
	% removal	85	-	-
BOD ₅ (July 1 to January 31)	mg/L	20	30	-
	lb/day	33	50	67
	% removal	85	-	-
TSS (July 1 to January 31)	mg/L	20	30	-
	lb/day	33	50	67
	% removal	85	-	-
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 126, no single sample may exceed 406		
<p>Note:</p> <p>a. If a single sample exceeds the 406 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 126 organisms per 100 mL, the effluent limit has not been exceeded.</p>				

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 five-day carbonaceous biochemical 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 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 Main Stem Columbia River.

Table 3-2: Comparison of TBELs for Federal Secondary Treatment Standards and Oregon Basin-Specific Design Criteria

Parameter	Federal Secondary Treatment Standards		Main Stem Columbia River Basin-Specific Design Criteria (OAR 340-041-0104)
	30-Day Average	7-Day Average	Monthly Average
BOD ₅ (mg/L)	30	45	River miles 120 to 147 Low stream flow (approximately July 1 - January 31): Monthly average effluent concentrations of 20 mg/L BOD ₅ and TSS High stream flow (approximately February 1 - June 30): Minimum of secondary treatment or equivalent control
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

3.2.1 Adjustments to Percent Removal Requirements

Federal regulations (40 CFR 133.103(d)) include special considerations for less concentrated influent wastewater from separate sewers. The rule allows substitution of either a lower percent removal requirement or a mass loading limit for the percent removal requirements provided that the permittee satisfactorily demonstrates that:

- The treatment works is consistently meeting, or will consistently meet, its permit effluent concentration limits, but its percent removal requirements cannot be met due to less concentrated influent wastewater;
- To meet the percent removal requirements, the treatment works would have to achieve significantly more stringent limits (defined as at least 5 mg/l more stringent than the otherwise applicable concentration-based limits) than would otherwise be required by the concentration-based standards; and,
- The less concentrated influent wastewater is not the result of excessive infiltration and inflow (I/I).

DEQ has determined the facility meets all three conditions above. Therefore, DEQ is proposing BOD and TSS percent removal limits of 65%. The TBEL analysis is documented in an April 2, 2025, memo which is part of the administrative record.

3.2.2 Mass Based Limits

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 3-3: Design Flows and Concentrations Limits

Season	Design Flow (mgd)	Monthly TSS Concentration Limit (mg/L)	Monthly BOD ₅ Concentration Limit (mg/L)
Dry Weather	0.2	30	30
Wet Weather	0.2	30	30
Design flow comments: DADWF, DAWWF			

Dry and Wet Weather Mass Load Calculations:

$$\text{Monthly Average: } 0.2 \text{ mgd} \times 30 \text{ mg/L} \times 8.34 = 50 \text{ lbs/day (Two significant figures)}$$

$$\text{Weekly Average: } 50 \text{ lbs/day monthly average} \times 1.5 = 75 \text{ lbs/day}$$

$$\text{Daily Maximum: } 50 \text{ lbs/day monthly average} \times 2 = 100 \text{ lbs/day}$$

The calculated dry weather mass load limits are less stringent than the current permit limits so the current limits for BOD₅ and TSS will be retained to meet anti-degradation and antibacksliding requirements. If the permittee wants to request a mass load increase, an antidegradation analysis will be required.

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

Table 3-4: BOD₅ and TSS Technology Based Effluent Limits

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
BOD ₅ (July 1 to January 31)	mg/L	20	30	-
	lbs/day	33	50	67
	% removal	65	-	-
TSS (July 1 to January 31)	mg/L	20	30	-
	lbs/day	33	50	67
	% removal	85	-	-
BOD ₅ (February 1 to June 30)	mg/L	30	45	-
	lbs/day	50	75	100
	% removal	65	-	-
TSS (February 1 to June 30)	mg/L	30	45	-
	lbs/day	50	75	100
	% removal	65	-	-

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 Columbia River. These uses are listed in OAR-340-041-0101 for the Main Stem Columbia River.

- Public and private domestic water supply
- Industrial water supply
- Irrigation and livestock watering
- Fish and aquatic life (including salmonid rearing, migration and spawning)
- Wildlife and hunting
- Fishing

- Boating
- Water contact recreation
- Aesthetic quality
- Hydro power
- 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) and also parameters with an approved TMDL (Category 4A) 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 (Category 4A). If a parameter is listed under Category 4A, TMDLs that will result in attainment of water quality standards and support beneficial use have been approved by EPA.

Table 3-5: 303(d) and TMDL Parameters

Water Quality Limited Parameters (Category 5)	
AU ID:	OR_SR_1708000108_88_100674
AU Name:	Columbia River (upstream from Pierce Island)
AU Status:	Impaired
Year Listed	1998
Year Last Assessed	2012
303d Parameters (Category 5)	DDE 4,4’, methylmercury, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs)
TMDL Parameters (Category 4)	
Temperature, total dissolved gas, dioxin (2,3,7,8-TCDD)	

The category 5 parameters listed in Table 3-5 include DDE 4,4’, which is a breakdown product of the insecticide DDT; polycyclic aromatic hydrocarbons (PAHs), which are a class of chemicals that occur naturally in coal, crude oil, and gasoline that are released into the air during combustion of these products; and methylmercury, which is produced in aquatic environments when anaerobic bacteria methylate inorganic mercury. EPA has considered minor POTWs to not be significant contributors for pollutants listed in Table C of Application Form 2A New and Existing POTWs. Therefore, Tanner Creek WWTP is not considered a source for DDE 4,4’, PAHs, or methylmercury and none of these water quality limited parameters are pollutants of concern for this facility.

3.3.3 TMDL Wasteload Allocations

DEQ issued TMDLs for the Columbia River in 1991 for 2,3,7,8-TCDD (dioxin) and in 2002 for total dissolved gas, while EPA issued a TMDL in 2021 for temperature. WLAs from this TMDL that are applicable to the permittees are listed in the following table.

Table 3-6: Applicable WLAs

Parameter	WLA	Time Period
Temperature	8.31 million kilocalories/day	June 1 – September 30
Note: The thermal load WLA is expressed as an average monthly value.		

Tanner Creek WWTP is not considered a source for 2,3,7,8-TCDD (dioxin) or total dissolved gas and was not assigned a WLA in the 1991 and 2002 TMDLs. The temperature WLA is discussed in section 3.3.7.

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 this domestic facility are listed in the following table.

Table 3-7: Domestic Toxic Pollutants of Concern

Flow Rate	Pollutants
≥ 0.1 mgd and < 1.0 mgd	Total Residual Chlorine, Total Ammonia Nitrogen

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

Table 3-8: 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
Total Ammonia Nitrogen	Application Requirement

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 RMZ is defined as that portion of the Columbia River extending ten (10) feet downstream of the diffuser. The zone of initial dilution (ZID) is that portion of the allowable RMZ that is within two (2) feet of the diffuser.

The proposed permit contains an updated regulatory mixing zone description which is described as follows. The description was updated to account for the diffuser length.

The Regulatory Mixing Zone (RMZ) is defined as that portion of the Columbia River extending 10 feet downstream from the mid-point of the diffuser and a width of 92 feet centered on the diffuser mid-point. The Zone of Immediate Dilution (ZID) is that portion of the Columbia River extending 2 feet downstream and 40 feet wide centered on the diffuser mid-point.



Figure 3-1: Outfall 001 Diffuser (blue dots), RMZ (blue line), ZID (purple line)

Outfall 001 is a 36-foot multiport diffuser with four 2-inch ports that are 1 foot off the river bed and point downstream. The first diffuser port is located at 45.631614, -121.96437. The last diffuser port is located at 45.631674, -121.964481. The mid-point of the diffuser and the outfall coordinates for the purposes of the permit are 45.631644, -121.964426.

The dilution factors at the edge of the Regulatory Mixing Zone and Zone of Initial Dilution are shown in Tables 3-9 and 3-10. These dilutions were developed by DEQ, as there is no documented mixing zone study for this outfall. The mixing zone memo documenting this analysis is in an October 10, 2024 Mixing Zone Memo which is part of the administrative record.

For this memo, dilutions were determined using CORMIX v 12.0.1.0. Outfall configuration was based on engineering diagrams from 1974. Effluent flows were based on average dry weather design flow while effluent temperature was based on recent DMR data. Ambient velocity and ambient temperature were based on data reported by the permittee. The Aquatic Life, 30-day Chronic criteria is used in the Ammonia RPA analysis. The statistics used to calculate dilutions follow the same guidance as for Human Health, Non-Carcinogen criteria in the Regulatory Mixing Zone IMD, Part 2.

Table 3-9: Outfall 001 Dry Weather Dilutions

Dilution Summary – Outfall 001 – July 1 to January 31 (Dry Weather)						
Water Quality Standard	Stream Flow (cfs)		Effluent Flow (mgd)		Dilution Factor	Location
	Statistic	Flow	Statistic	Flow		
Aquatic Life, Acute	1Q10	62,070	ADWDF	0.2	58	ZID (2 ft)
Aquatic Life, Chronic	7Q10	75,531	ADWDF	0.2	2830	RMZ (10 ft)
Human Health, Non-Carcinogen	30Q5	86,171	ADWDF	0.2	2830	RMZ (10 ft)
<p><i>ADWDF = Average dry weather design flow</i> <i>PF = Peaking factor (1.5)</i></p>						
<p>Comments: Velocity of 1 ft/s used to model dilution. Velocity was provided by permittee and was lower end of range provided. Average Dry Weather Design Flow used in all modeling scenarios since actual flows caused wake interference and were not able to be modeled.</p>						

Table 3-10: Outfall 001 Wet Weather Dilutions

Dilution Summary – Outfall 001 – February 1 to June 30 (Wet Weather)						
Water Quality Standard	Stream Flow (cfs)		Effluent Flow (mgd)		Dilution Factor	Location
	Statistic	Flow	Statistic	Flow		
Aquatic Life, Acute	1Q10	83,500	ADWDF	0.2	569	ZID (2 ft)
Aquatic Life, Chronic	7Q10	104,991	ADWDF	0.2	2830	RMZ (10 ft)
Human Health, Non-Carcinogen	30Q5	124,142	ADWDF	0.2	2830	RMZ (10 ft)
<i>ADWDF = Average dry weather design flow</i> <i>PF = Peaking factor (1.5)</i>						
Comments: Velocity of 1 ft/s used to model dilution. Velocity was provided by permittee and was lower end of range provided. Average Dry Weather Design Flow used in all modeling scenarios since actual flows caused wake interference and were not able to be modeled.						

3.3.6 pH

The pH criterion for this basin is 7.0 – 8.5 per OAR 340-041-0104. DEQ determined there is no reasonable potential for the discharge to exceed the pH criterion at the edge of the mixing zone. The current permit effluent limits of 6.0 to 9.0 will be retained in the proposed permit as TBELs. The following 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	2830.0	2830.0
2. Upstream characteristics		
a. Temperature (°C)	21.7	5.4
b. pH (S.U.)	7.2	8.0
c. Alkalinity (mg CaCO ₃ /L)	48.0	48.0
3. Effluent characteristics		
a. Temperature (°C)	23.0	7.0
b. pH (S.U.)	6.0	9.0
c. Alkalinity (mg CaCO ₃ /L)	82.4	82.4
4. Applicable pH criteria	7.0	8.5
pH at mixing zone boundary	7.2	8.0
Is there reasonable potential?	No	No
Proposed effluent limits	6.0	9.0
Effluent data source: DMRs: 6/2020 – 9/2024		
Ambient data source: AWQMS: 6/2021 – 10/2022 from ORDEQ station 35594, Bonneville ambient monitoring station, and Hood River ambient monitoring station.		

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	Migration Corridor 20°C (OAR 340-041-0028(4)(d))
Applicable dates: Year-round	
Salmon/Steelhead Spawning 13 °C? OAR 340-041-0028(4)(a)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Applicable dates: October 15 – March 31 (RM 141.5 to RM 143.5)	
WQ-limited?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
TMDL wasteload allocation assigned?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Applicable dates: June 1 – October 31	
TMDL based on natural conditions criterion?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cold water summer protection criterion applies?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cold water spawning protection applies?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Comments: The Salmon & Steelhead Spawning through Fry Emergence from October 15 – March 31 is located from Beacon Rock to Upstream of Ives Island (RM 141.5 to 143.5). This is about 2.5 miles downstream of the facility.	

The main stem Columbia River has a year-round Salmon and Steelhead Migration criterion of 20 °C. EPA issued a temperature TMDL addressing this criterion for the entire Columbia River and the spawning criterion for the stream segment downstream of the discharge on May 18, 2020, and revised on August 13, 2021. With the issuance of the EPA TMDL a wasteload allocation for the facility of 8.31 million kcal/day (monthly average) applies to the discharge and is included in the proposed permit as an effluent limit for the June 1 – October 31 period. The daily thermal load discharged is calculated by multiplying the daily effluent flow by the average daily effluent temperature and a standard conversion factor. The daily thermal loads are averaged for the month and must be equal to or less than 8.31 million kcal/day.

The TMDL did not assign Tanner Creek WWTP a thermal load limit from November 1 – May 31, therefore it is expected that there is no potential for the facility’s discharge to exceed the temperature standard during this period.

Final effluent limits are listed in the following table.

Table 3-13: Temperature Criterion Effluent Limits

Effluent limit needed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
TMDL WLA Limit: 8.31 million kcal/day as a monthly average
Applicable time period: June 1 – October 31
Temperature Criterion Limit: NA
Applicable time period: Dates <input checked="" type="checkbox"/> NA
Comments: NA

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.

Salmon and steelhead spawning occurs approximately 2.5 miles downstream of the facility at river mile 141.5 to 143.5 from October 15 – March 31. The TMDL wasteload allocation ensures this criterion is met at the locations of active spawning areas.

Therefore, spawning impairment caused by the discharges is prevented or minimized.

- 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.

The maximum daily effluent temperature recorded at all outfalls between January 2020 and August 2024 was 23 °C, below the criterion of 32 °C. Therefore, the discharges are not expected to cause acute impairment to salmonid species.

- 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.

The maximum daily effluent temperature recorded at all outfalls between January 2020 and August 2024 was 23 °C, below the criterion of 25 °C. Therefore, the discharges are not expected to cause thermal shock to salmonid species.

- 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.

An analysis related to migration blockage, included in Appendix A, indicates that when the effluent water temperature is at its maximum measured value and the ambient temperature is at the 21 °C criterion, the plume's temperature at 25% of the receiving stream's cross-sectional area will not be above 21 °C. Based on this analysis, migration blockage caused by the discharges is prevented or minimized.

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Calculated limit: NA
Applicable timeframe: NA
Comments: NA

3.3.7.3 Cold Water Refugia

OAR 340-041-0028(4)(d) requires that water bodies subject to the salmonid migration criterion of 20 °C must also have cold water refugia that are sufficiently distributed to allow salmon and steelhead migration without significant adverse effects from higher water temperatures elsewhere in the water body. The 2021 EPA Columbia Cold Water Refuges Plan identified Tanner Creek as a tributary with an important salmonid cold water refuge. Tanner Creek is immediately upstream of the Tanner Creek WWTP in Oregon. The thermal load discharged from this facility is 432 feet from the shore on the bed of the Columbia River. As a result, it is unlikely that the facility’s effluent would have an impact on the cold water refuge at Tanner Creek.

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. If a single sample exceeds 406 *E. coli* per 100 mL, then the permittee may take five consecutive re-samples. If the geometric mean of the five re-samples is less than or equal to 126, a violation is not triggered. The re-sampling must be taken at four-hour intervals beginning within 28 hours after the original sample was taken. The following table includes the proposed permit limits and apply year round.

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

<i>E. coli</i> (#/100 ml)	Geometric Mean	Maximum
Existing Limit	126	406
Proposed Limit	126	406

3.3.9 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
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.

3.3.9.1 Total Residual Chlorine

An analysis was conducted to determine if the facility had the reasonable potential to exceed the chlorine criteria. The maximum chlorine concentration of 2.20 mg/L was used for the analysis. The analysis indicates the discharge has the potential to exceed the chlorine criteria; therefore, chlorine limits are included in the proposed permit. Proposed limits are listed in the following table.

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	-	-
Proposed Limit	0.42	1.10
Effluent data source: DMRs 4/2022 – 10/2024		
Receiving water data source: Assumed to be zero		

Effluent data submitted by the permittee indicates that the permittee will not be able to meet these WQBELs upon permit issuance. Therefore, a compliance schedule will be included in Schedule C of the permit (see Section 6).

3.3.9.2 Total Ammonia Nitrogen

DEQ’s ammonia criteria vary with changes in pH and temperature. DEQ performed reasonable potential analyses that account for changes in the effluent and receiving water pH and temperature to determine the appropriate ammonia criteria.

Seasonal ammonia reasonable potential analyses were performed for the dry season (July 1 – January 30) and the wet season (February 1 – June 30). The results of the analyses show that there was no reasonable potential to exceed water quality at the edge of the ZID or the RMZ. As a result, no effluent limits are included in the proposed permit.

The following tables provide a summary of the data used for the ammonia analyses and the results of the analyses.

Table 3-17: Ammonia Analysis Information – Dry Season

	Acute	Chronic	
		4-day	30-day
Dilution	58	2830	2830
Ammonia Criteria	3.1	1.6	0.6
Effluent Data Used			
Ammonia (mg/L)	25.1	25.1	
pH (SU)	7.5	7.5	
Temperature (°C)	18.6	18.6	
Alkalinity (mg/L CaCO ₃)	26.4	26.4	
Receiving Stream Data Used			
Ammonia (mg/L)	0.4	0.4	
pH (SU)	8.0	8.0	
Temperature (°C)	22.2	22.2	
Alkalinity (mg/L CaCO ₃)	62.7	62.7	
Ammonia Limit Needed?	No		
Calculated Limits	AML	MDL	
Ammonia (mg/L)	-	-	
Effluent data source			
DMRs: 6/2020 – 11/2024			
Ambient data source			
AWQMS: 6/2021 – 10/2022 from ORDEQ station 35594, Bonneville ambient monitoring station, and Hood River ambient monitoring station.			

Table 3-18: Ammonia Analysis Information – Wet Season

	Acute	Chronic	
		4-day	30-day
Dilution	569	2830	2830
Ammonia Criteria	4.9	2.3	0.9
Effluent Data Used			
Ammonia (mg/L)	17.3	17.3	
pH (SU)	7.6	7.6	
Temperature (°C)	22.0	22.0	
Alkalinity (mg/L CaCO ₃)	48.8	48.8	
Receiving Stream Data Used			
Ammonia (mg/L)	0.0	0.0	
pH (SU)	8.0	8.0	
Temperature (°C)	18.2	18.2	
Alkalinity (mg/L CaCO ₃)	69.6	69.6	
Ammonia Limit Needed?	No		
Calculated Limits	AML	MDL	
Ammonia (mg/L)	-	-	
Effluent data source			
DMRs: 6/2020 – 11/2024			
Ambient data source			
AWQMS: 6/2021 – 10/2022 from ORDEQ station 35594, Bonneville ambient monitoring station, and Hood River ambient monitoring station.			

3.3.9.3 Mercury – Human Health Criterion

DEQ determined that this facility is not a likely source of mercury. Therefore, no additional controls or monitoring will be required.

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 limits except for less stringent BOD₅ and TSS percent removal limits as described in Table 3-4: BOD₅ and TSS Technology Based Effluent Limits. Although antibacksliding provisions generally do not allow relaxation of effluent limits in permit renewals, these proposed permit modifications are allowed under the provisions as noted below.

The existing permit's percent removal requirements were based on federal secondary treatment standards. The newly proposed percent removal requirements are based on 40 CFR 133.103(d) special considerations. The proposed percent removal requirements were calculated using the influent and effluent concentration data collected over the last permit cycle and determined as the minimum regularly achievable removal efficiencies. Because this limitation is a Federal TBEL,

an exception in 40 CFR 122.44(1) must be met to allow backsliding. The relevant exception is 40 CFR 122.44(1)(2)(i)(B)(I) - Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. Because the change in percent removal would not result in a change in effluent quality, antidegradation does not apply and the limit is included in the proposed permit.

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

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 facility currently manages all its wastewater solids by landfilling offsite. If during the term of this permit the WWTP decides that it wants to treat and land apply 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.

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 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 any one 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. Quarterly receiving stream monitoring during the next permit term for total ammonia nitrogen has been included to ensure adequate data for reasonable potential analyses.

6. Schedule C: Compliance Schedule

The proposed permit contains new water quality-based effluent limits for total residual chlorine. The facility is unable to meet these limits upon permit issuance as there is currently no dechlorination system at the facility. The proposed permit contains a compliance schedule that allows time for the facility to make facility modifications in order to meet the new limits. DEQ has determined that the proposed schedule requires the permittee to meet the final limits as soon as possible. This compliance schedule lays out a series of milestones which, upon completion, will require the permittee to meet the permit's water quality-based effluent limits (see 40 CFR 122.47 and OAR 340-041-0061(12)).

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 Mixing Zone Study

A requirement to submit an updated mixing zone study.

7.3 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.

7.4 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.

7.5 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.

7.6 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.

7.7 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.

7.8 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.

7.9 Hauled Waste Annual Report

A condition requiring submittal of an annual hauled waste report that summarizes hauled waste accepted at the facility during the previous year.

7.10 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.

7.11 Outfall Inspection

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

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: Thermal Plume Reasonable Potential Analysis

Temperature Thermal Plume Limitations within the Mixing Zone Rule (OAR 340-041-0053(2)(d))			
Sections 5.6 and 6.5 of Temperature IMD			
This rule only applies to receiving streams with salmonid uses. For migration blockage, applies to upstream migration of anadromous salmonids (See associated notes in the "Thermal Plumes Instructions".) This spreadsheet assesses compliance with OAR 340-042-0053(2)(d) subparts C and D. Subparts A and B need to be assessed separately (see Thermal Plumes Instructions).			
Facility Name: Tanner Creek WWTP at Bonneville Dam Date: 12/13/24			
OAR 340-041-0053(2)(d)(C): Thermal Shock 25 deg C at 5% of the stream cross section		OAR 340-041-0053(2)(d)(D): Migration Blockage 21 deg C at 25% of the stream cross section	
Enter data into white cells below:		Enter data into white cells below:	
7Q10 =	<input type="text" value=""/>	cfs	Data Metric/Source
Ambient Temperature =	<input type="text" value=""/>	°C	Dry season 7Q10 from mixing zone memo Ambient criterion
Effluent Flow =	<input type="text" value=""/>	mgd	Average dry weather flow for facility
Effluent Temperature =	<input type="text" value=""/>	°C	Maximum effluent temperature 2020 - 2024
5% of 7Q10 =	<input type="text" value="0.0"/>	cfs	
5% dilution =	<input type="text" value="#DIV/0!"/>		dilution = (Qr*0.05)/Qe + 1
Temperature at 5% cri	<input type="text" value="#DIV/0!"/>	°C	
	<input type="text" value="#DIV/0!"/>		
Notes:			

7Q10 =	<input type="text" value="75531"/>	cfs	
Ambient Temperature =	<input type="text" value="21"/>	°C	
Effluent Flow =	<input type="text" value="0.2"/>	mgd	
Max 7dAM Effluent Temperature =	<input type="text" value="23"/>	°C	
25% of 7Q10 =	<input type="text" value="18882.8"/>	cfs	
25% dilution =	<input type="text" value="61031"/>		dilution = (Qr*0.25)/Qe + 1
Temperature at 25% cross section =	<input type="text" value="21.0"/>	°C	
ΔT at 25% Stream Flow=	<input type="text" value="0.0"/>	°C	No Reasonable Potential

Equation used to calculate ΔT at edge of MZ

$$\Delta T_{mz} = \frac{T_e + (S - 1)T_a}{S} - T_a$$

Equation used to calculate thermal load limit

$$TLL = 3.7854 Q_e S \Delta T_{all} C_p \rho$$

Where:

- Qe = Effluent Flow in mgd
- S = Dilution
- ΔT_{all} = Allowable temperature increase at edge of MZ (°C)
- Cp = Specific Heat of Water (1 cal/g °C)
- ρ = Density of Water (1 g/cm³)
- 3785.41 = Flow conversion from mgd to m³/day