Oregon
Tina Kotek, Governor

Department of Environmental Quality
Western Region Salem Office
4026 Fairview Industrial Dr SE
Salem, OR 97302
(503) 378-8240
FAX (503) 373-7944
TTY 711

June 13, 2024

Michael Bollweg
City of Rouge River
P.O. Box 1137
Rogue River, OR 97537-1137

Re: NPDES permit Extension of Applicant Review Period
File no. 76030
Permit no. 102588
Facility: Rogue River STP, 5680 Foothill Blvd., Rogue River
Jackson County

DEQ has reviewed your request received on June 6, 2024 for an extension of your applicant review period for the above referenced permit. DEQ is granting your request. Your Applicant Review period has been extended to June 20, 2024.

Please submit comments in writing 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 20, 2024**. DEQ will review your comments and address your concerns to the degree possible; however, we will not prepare a formal written response at this stage. DEQ will provide for additional applicant review if the permit is significantly modified in response to your comments. If there are no significant changes, DEQ will make the permit documents available for interested parties and hold a public hearing. Please be aware that the city may provide additional comment on the permit during this time. When the public participation period has ended, DEQ will take final action on your application.

Please contact me at 503-378-5055 with any questions about permitting processing. If you have any questions on your permit draft, please contact Helen Sanders at 541-241-0152 or helen.sanders@deq.oregon.gov.

Sincerely,

Trinh Hansen

Trinh Hansen
Water Quality Permit Coordinator
Western Region, Salem Office

ec: Source File, Portland Office, DEQ
Andy Ullrich, Medford, DEQ
Helen Sanders, Eugene Office, DEQ
ORMS

PUBLIC NOTICE

Date posted: X/X/XX

DEQ Requests Comments on Proposed City of Rogue River Water Quality Permit Renewal

HOW TO PROVIDE PUBLIC COMMENT

Facility name: City of Rogue River
Permit type: Minor Domestic
Comments due by: [Date] at 5 p.m.

Send written comments to:

By mail: Trinh Hansen, Oregon DEQ
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 City of Rogue River's proposed water quality permit, known officially as a National Pollutant Discharge Elimination System permit.

Summary

Subject to public review and comment, DEQ intends to renew the proposed water quality permit, which allows the Rogue River sewage treatment plant to discharge wastewater to the Rogue River and the city to land apply biosolids at Martin Ranch in Wimer, OR.

About the facility

The city has applied for a water quality permit renewal for the Rogue River sewage treatment plant located at 5680 Foothill Boulevard in Rogue River, in Jackson County. DEQ last renewed this permit on Sept. 5, 2002. The facility's operation includes twin sequencing batch reactor (SBR) units. Raw sewage is pumped from an influent pump station up to the headworks at the facility. The headworks consists of a mechanical bar screen and gravity grit removal. Each treatment unit has a capacity of 250,000 gallons. Each tank continuously receives flow from the flow splitter at the headworks. Sludge is pumped by fixed rate pumps to the digesters (124,540 gallons each). Effluent from the SBR units is decanted through an automatic variable level decant system. Discharged effluent then flows to the equalization basins and is sent to the UV disinfection system. After UV disinfection, the effluent flows into the Rogue River at river mile 110. Regulated pollutants produced by the facility are five-day biochemical oxygen demand (BOD_5), five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), pH, temperature, and *E. coli*.

The facility discharges to the Rogue River near Fielder Lane in Rogue River. The 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 Rogue River Total Maximum Daily Load, or TMDL, for temperature.

Translation or other formats

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

State of Oregon
DEQ Department of Environmental Quality

The most recent DEQ inspection of the Rogue River sewage treatment plant was on Aug. 3, 2021. DEQ did not identify violations during this inspection. The Rogue River sewage treatment plant has had three water quality violations in the past permit term. The issues related to these past compliance issues have been resolved and the facility is currently operating in full compliance.

The facility holds no other permits from DEQ.

What types of pollutants does the permit regulate?

This permit sets conditions for how the facility deals with the following pollutants: BOD_5, $CBOD_5$, TSS, pH, temperature, and *E. coli*.

DEQ also requires the permittee to maintain a biosolids management/land application plan and a recycled water plan. As part of this permit renewal, the biosolids plan has been updated and is scheduled for public notice. The recycle water reuse plan is being drafted and the permittee will be allowed to discharge recycled water after the recycle water reuse plan has completed public notice. The facility treats wastewater solids to produce biosolids for beneficial reuse on agricultural lands located in Douglas County. The biosolids program including the beneficial use sites are described in the biosolids management/land application plan.

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

Yes. The draft permit would change the excess thermal load limit from 29 million British thermal units (BTU) per day to a combination of static limits varying from 11 to 20 million kcal/day and variable limits based on river and effluent flows. These new limits are based on a total maximum daily load (TMDL) that was developed in 2008 for the Rogue River Basin. In certain situations, these new limits may be less stringent than those in the current permit, but the changes are considered insignificant under Oregon's Antidegradation Rule (OAR 340-041-0004(3)(c)) and are otherwise allowed under the applicable rules as discussed in the permit fact sheet.

Pollutant	Change
Excess Thermal load	From 29 million BTU per day to a combination of static limits varying from 11 to 20 million kilocalories (kcal) per day and flow-based limits
Recycle Water Reuse	Recycle Water Reuse will be permitted following DEQ official approval of a Recycled Water Reuse Plan

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.

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 Hanson 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 or sex in administration of its programs or activities. Visit DEQ's Civil Rights and Environmental Justice page.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM WASTE DISCHARGE PERMIT

Oregon Department of Environmental Quality
Western Region – Salem Office
4026 Fairview Industrial Dr. SE
Salem, OR 97302
Telephone: 503-378-8240

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

ISSUED TO:

City of Rogue River
PO Box 1137
Rogue River, OR, 97537

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Outfall Number	Outfall Location
Treated Wastewater	001	42.4313, -123.1836
Recycled Water Reuse	002	Specified in Recycled Water Use Plan
Biosolids	003	Specified in Biosolids Management/Land Application Plan

FACILITY LOCATION:

Rogue River STP
5680 Foothill Boulevard
Rogue River, OR, 97537
County: Jackson
EPA Permit Type: Minor

RECEIVING STREAM INFORMATION:

Receiving stream/NHD name: Rogue River
USGS 12-Digit HUC: 171003080401
OWRD Administrative Basin: South Oregon Coastal
NHD Reach Code & % along reach: 17100308000035 – 78.69%
ODEQ LLID & RM: 1244292424210 – 110
Integrated Report AU ID: OR_SR_1710030804_04_106341

Issued in response to Application No. 975556 received March 5, 2007. This permit is issued based on the land use findings in the permit record.

DRAFT	DRAFT	DRAFT
Ranei Nomura, Water Quality Manager Western 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.

TABLE OF CONTENTS

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

LIST OF TABLES

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
$CBOD_5$ (May 16 to Nov. 15)	mg/L	10	15	
	lb/day	32	51	70
	% removal	85	-	-
TSS (May 16 to Nov. 15)	mg/L	10	15	
	lb/day	32	51	70
	% removal	85		
BOD_5 (Nov. 16 to May 15)	mg/L	30	45	
	lb/day	110	160	210
	% removal	85	-	-
TSS (Nov. 16 to May 15)	mg/L	30	45	
	lb/day	110	160	210
	% removal	85		
pH	SU	Instantaneous limit between a daily minimum of 6.0 and a daily maximum of 9.0		
E. coli (See note a.)	#/100 mL	Must not exceed a monthly geometric mean of 126, no single sample may exceed 406		

Note:

a. 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 *E. coli* organisms/100 mL demonstrates compliance with the limit.

Table A2: Excess Thermal Load Limits

Time Period	Rogue River 7Q10 (cfs)	Excess Thermal Load Limit (million kcals/day as a 7-day rolling average) (See notes a and b.)	
		Option A	Option B (Stream flow > 7Q10) (See note c.)
Apr. 1 – May 15	1257	13	ETL Limit= $0.0043^{\circ}C \times (Q_e + (Q_r \times 0.646)) \times 3.785$
May 16 – May 31	1979	21	
Jun. 1 – Jun. 15	1938	20	
Jun. 16 – Sep. 15	1292	14	
Sep. 16 – Oct. 31	1003	11	

Notes:

a. The permittee must select either Option A or Option B as the applicable 7-day rolling average ETL limit (ETLL). If the permittee selects Option B, the permittee must then calculate the 7-day rolling average ETLL using the equation for each day that the Option B limit is selected. The 7-day rolling average for any day is the average of the daily ETL limit values for that day and the preceding six (6) days.

b. To calculate the discharged excess thermal load for comparison against the effluent limit, see Schedule B, Table B3.

c. Equation Clarification:

Qe = Daily average effluent flow rate, MGD.

Qr = Daily average river flow from USGS gage 14359000, in cfs.

The minimum river flow value to be used in the equation is the 7Q10 low flow noted in the Rogue River 7Q10 column of the table.

3.785 and 0.646 are conversion factors that allow keeping the Q_e in mgd and the Q_r in cfs.

2. Regulatory Mixing Zone

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

The allowable Regulatory Mixing Zone (RMZ) is that portion of the Rogue River extending from the outfall to a point 150 ft downstream from the outfall. The Zone of Immediate dilution (ZID) shall be defined as the portion of the allowable mixing zone that is within 15 ft downstream from the point of discharge.

3. Use of Recycled Water

The permittee is authorized to distribute recycled water if it is:

a. Treated and used according to the criteria listed in Table A3.

b. Managed in accordance with a DEQ-approved Recycled Water Use Plan unless exempt as provided in Schedule D.

c. Used in a manner and applied at a rate that does not adversely affect groundwater quality.

d. Applied at a rate and in accordance with site management practices that ensure continued agricultural, horticultural, or silvicultural production and does not reduce the productivity of the site.

e. Irrigated using sound irrigation practices to prevent:

i. Offsite surface runoff or subsurface drainage through drainage tile;

ii. Creation of odors, fly and mosquito breeding, or other nuisance conditions; and

iii. Overloading of land with nutrients, organics, or other pollutants.

Table A3: Recycled Water Limits

Class	Level of Treatment (after disinfection unless otherwise specified)	Beneficial Uses
A (See note a.)	Class A recycled water must be oxidized, filtered, and disinfected. Before disinfection, turbidity may not exceed: • An average of 2 NTUs within a 24-hour period. • 5 NTUs more than five percent of the time within a 24-hour period. • 10 NTUs at any time. After disinfection, total coliform may not exceed: • A median of 2.2 organisms per 100 mL based on daily sampling over the last 7 days that analyses have been completed. • 23 organisms per 100 mL in any single sample.	Class A recycled water may be used for: • Class B, Class C, Class D, and non-disinfected uses. • Irrigation for any agricultural or horticultural use. • Landscape irrigation of parks, playgrounds, school yards, residential landscapes, or other landscapes accessible to the public. • Commercial car washing or fountains when the water is not intended for human consumption. • Water supply source for non-restricted recreational impoundments.
B (See note a.)	Class B recycled water must be oxidized and disinfected. Total coliform may not exceed: • A median of 2.2 organisms per 100 mL, based on the last 7 days that analyses have been completed. • 23 total coliform organisms per 100 mL in any single sample.	Class B recycled water may be used for: • Class C, Class D, and non-disinfected uses. • Stand-alone fire suppression systems in commercial and residential building, non-residential toilet or urinal flushing, or floor drain trap priming. • Water supply source for restricted recreational impoundments.
C (See note a.)	Class C recycled water must be oxidized and disinfected. Total coliform may not exceed: • A median of 23 total coliform organisms per 100 mL, based on results of the last 7 days that analyses have been completed. • 240 total coliform organisms per 100 mL in any two consecutive samples.	Class C recycled water may be used for: • Class D and non-disinfected uses. • Irrigation of processed food crops; irrigation of orchards or vineyards if an irrigation method is used to apply recycled water directly to the soil. • Landscape irrigation of golf courses, cemeteries, highway medians, or industrial or business campuses. • Industrial, commercial, or construction uses limited to: industrial cooling, rock crushing, aggregate washing, mixing concrete, dust control, non-structural firefighting using aircraft, street sweeping, or sanitary sewer flushing.

Class	Level of Treatment (after disinfection unless otherwise specified)	Beneficial Uses
D (See note a.)	Class D recycled water must be oxidized and disinfected. *E. coli* may not exceed: • A 30-day geometric mean of 126 organisms per 100 mL. • 406 organisms per 100 mL in any single sample.	Class D recycled water may be used for: • Non-disinfected uses. • Irrigation of firewood, ornamental nursery stock, Christmas trees, sod, or pasture for animals.
Non-disinfected (See note a.)	Non-disinfected recycled water must be oxidized.	Non-disinfected water may be used for: • Irrigation for growing commercial timber, fodder, fiber, or seed crops not intended for human ingestion.

Note:

a. Use of Class A, Class B, Class C, Class D and nondisinfected recycled water will not be allowed until Schedule D Condition 4 requirements are met. To apply Class A, Class B, Class C, Class D or nondisinfected recycled water, the permittee must submit and obtain DEQ approval for a recycled water use plan as required by Schedule D, Condition 4.

4. Biosolids

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

a. The permittee must manage biosolids in accordance with its DEQ-approved Biosolids Management Plan and Land Application Plan.

b. The permittee must apply biosolids at or below the agronomic rates approved by DEQ in order to minimize potential groundwater degradation.

c. 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 DEQ-issued site authorization letter.

d. 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.

e. The permittee must not apply biosolids containing pollutants in excess of the ceiling concentrations shown in the table below. The permittee may apply biosolids containing pollutants in excess of the pollutant concentrations, but below the ceiling concentrations, however, the total quantity of biosolids applied cannot exceed the cumulative pollutant loading rates in the table below.

Table A4: 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 *ceiling concentrations*, *pollutant concentrations*, and *cumulative pollutant loading rates*.

5. Chlorine Usage

The permittee is prohibited from using chlorine or chlorine compounds for effluent disinfection purposes. Chlorine residual in effluent resulting from chlorine or chlorine-containing chemicals used for maintenance or other purposes is also prohibited.

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 and B3 Influent Monitoring and Effluent 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/15/2028	Electronic copy in a DEQ-approved format	Attached via electronic reporting as directed by DEQ
Recycled Water Annual Report (see Schedule D) - Only required if the permittee distributes recycled water under a recycled water use plan	Annually	January 15	Electronic copy in a DEQ-approved format	Attached via electronic reporting as directed by DEQ Electronic copy to DEQ Water Reuse Program Coordinator
Biosolids annual report (see Schedule D)	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
Industrial User Survey (see Schedule D)	Once per permit cycle	Submit by no later than 24 months after permit effective date	1 electronic copy and 1 hard copy in a DEQ approved format	• 1 Hard copy to DEQ Pretreatment Coordinator • 1 Electronic copy to Compliance Officer
Outfall Inspection Report (see Schedule D)	Once per permit cycle	Submit by XX/15/2027 In the 3rd year of the permit.	Electronic copy in a DEQ-approved format	Attached via electronic reporting as directed by DEQ

Notes:

a. For submittals that are provided to DEQ by mail, the postmarked date must not be later than the due date.

b. All reporting requirements are to be submitted in a DEQ-approved format, unless otherwise specified in writing.

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.

ii. Matrix effects are present that prevent the attainment of QLs and these matrix effects are demonstrated according to procedures described in EPA's "*Solutions to Analytical Chemistry Problems with Clean Water Act Methods*", March 2007. If using alternative methods and taking appropriate steps to eliminate matrix effects does not eliminate the matrix problems, DEQ may authorize in writing re-sampling or allow a higher QL to be reported.

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. 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. If these method criteria are not met for BOD_5, the permittee must: 1) report the daily BOD_5 values with data qualifiers; 2) include these BOD_5 values in the summary statistic calculations (e.g., weekly averages, monthly averages, % removal); and 3) report the BOD_5 summary statistics with data qualifiers.

iii. Flow measurement, field measurement, and continuous monitoring devices - The permittee must:

(A) Establish verification and calibration frequency for each device or instrument in the quality assurance plan that conforms to the frequencies recommended by the manufacturer.

(B) Verify at least once per year that flow-monitoring devices are functioning properly according to manufacturer's recommendation. Calibrate as needed according to manufacturer's recommendations.

(C) Verify at least weekly that the continuous monitoring instruments are functioning properly according to manufacturer's recommendation unless the permittee demonstrates a longer period is sufficient and such longer period is approved by DEQ in writing.

f. Reporting Sample Results

i. The permittee must report the laboratory DL and QL as defined above for each analyte, with the following exceptions: pH, temperature, BOD, CBOD, TSS, Oil & Grease, hardness, alkalinity, 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 "E 1.0 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 between the mechanical bar screen and the Parshall flume and report results in accordance with Table B1 and the table below.

Table B2: Influent Monitoring Requirements

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type / Required Action (See note a.)	Report Statistic (See note b.)
BOD_5 (00310)	mg/L	Nov. 1–May 31	2/Week	24-hour composite	Monthly Average
$CBOD_5$ (80082)	mg/L	May 1–Nov. 30	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 at Outfall 001 between the UV unit and Parshall flume 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	Nov. 1–May 31	2/Week	24-hour composite	1. Monthly Average 2. Maximum Weekly Average
BOD_5 (00310)	lb/day	Nov. 1–May 31	2/Week	Calculation	1. Daily Maximum 2. Monthly Average 3. Maximum Weekly Average
BOD_5 percent removal (81010) (See note c.)	%	Nov. 1–May 31	Monthly	Calculation based on monthly average BOD_5 concentration values	Monthly Average
$CBOD_5$ (80082)	mg/L	May 1–Nov. 30	2/Week	24-hour composite	1. Monthly Average 2. Maximum Weekly Average
$CBOD_5$ (80082)	lb/day	May 1–Nov. 30	2/Week	Calculation	1. Daily Maximum 2. Monthly Average 3. Maximum Weekly Average
$CBOD_5$ percent removal (81383) (See note c.)	%	May 1–Nov. 30	Monthly	Calculation based on monthly average $CBOD_5$ 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
Temperature (00010)	ºC	Year-round	Daily	Grab	1. Daily Maximum 2. Monthly Average 3. 7-day Rolling Average of Daily Maximum
Excess Thermal Load (51405)	Million kcal/day	Apr. 1–Oct. 31	Daily	Calculation (See note d.)	Maximum 7-day Rolling Average
Excess Thermal Load Compliance Option	NA	Apr. 1–Oct. 31	Daily	Narrative	Compliance Option A or B
Excess Thermal Load Limit (Option B calculation, see Table A2) (See note e.)	Million kcal/day	Apr. 1–Oct. 31	Daily	Calculation	7-day Rolling Average
E. coli (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	Monthly Maximum
UV intensity	mW/cm^2	Year-round	Daily	Continuous	Maintain records on-site
UV dose	mJ/cm^2	Year-round	Daily	Calculation	Maintain records on-site
UV transmittance	%	Year-round	Daily	Continuous	Maintain records on-site
Dissolved Oxygen (00300)	mg/L	Third year of permit cycle [2027]	Quarterly	24-hour composite (See note f.)	Quarterly Minimum
Total Kjeldahl Nitrogen (TKN) (00625)	mg/L	Third year of permit cycle [2027]	Quarterly	24-hour composite	Quarterly Maximum
Nitrate (NO_3) Plus Nitrite (NO_2) Nitrogen (00630)	mg/L	Third year of permit cycle [2027]	Quarterly	24-hour composite	Quarterly Maximum

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a.)	Report Statistic (See note b.)
Oil and Grease (00556)	mg/L	Third year of permit cycle [2027]	Quarterly	Grab	Quarterly Maximum
Total Phosphorus (00665)	mg/L	Third year of permit cycle [2027]	Quarterly	24-hour composite	Quarterly Maximum
Total Dissolved Solids (70295)	mg/L	Third year of permit cycle [2027]	Quarterly	24-hour composite	Quarterly Maximum

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a.)	Report Statistic (See note b.)

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 perform grab measurements 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:

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

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 daily excess thermal load (ETL) discharged must be calculated using the daily maximum effluent temperature and the corresponding daily average effluent flow using the formula below. If the calculation results in an ETL value less than zero, the results must be recorded as zero.

The 7-day rolling average is then calculated from the daily ETLs.

The daily ETL is calculated as follows: $ETL = 3.785 * Q_e * \Delta T$

Where:

ETL = Excess Thermal Load (million kcal/day)

Q_e = Daily Average Effluent flow (MGD)

ΔT = Daily Maximum Effluent temperature (°C) minus applicable criterion in table below

Time Period	Applicable Criterion (°C)
Apr. 1 – May 15	13.0
May 16 – Jun. 30	18.0
Jul. 1 – Aug. 31	19.8
Sep. 1 – Sep. 15	18.8
Sep. 16 – Oct. 15	18.0
Oct. 16 – Oct. 31	13.0

e. If the permittee selects Excess Thermal Load Limit (ETLL) Option B from Table A1, then the permittee must calculate the ETLL (million kcal/day) each day the permittee uses this option. The permittee must use the equation and procedure noted in Table A2.

f. For Dissolved Oxygen, the permittee must collect and analyze at least four discrete grab samples over the operating day with samples collected no less than one hour apart. The analytical results for all samples in a day must be averaged for reporting purposes.

4. Recycled Water Monitoring Requirements: Outfall 002

The permittee must monitor recycled water for Outfall 002 as listed below. The samples must be representative of the recycled water class(es) delivered for beneficial reuse at a location identified in a DEQ approved Recycled Water Use Plan.

Table B4: Recycled Water Monitoring (required only when using recycled water)

Item or Parameter (See note c.)	Units	Time Period	Minimum Frequency	Sample Type/ Required Action	Report (See note a.)
Total flow (50050)	MGD	See Recycled Water Use Plan.	Daily	Measure	Monthly Total
Quantity irrigated (51789)	in/ac	See Recycled Water Use Plan.	Daily	Calculate	Monthly Total
pH (00400)	SU	See Recycled Water Use Plan.	2/Week	Grab	1. Monthly Minimum 2. Monthly Maximum
UV dosage (61938)	mJ/cm^2	See Recycled Water Use Plan.	Daily	Calculate based on UVI grab and average daily flow	Monthly Minimum
Turbidity (00070)	NTU	See Recycled Water Use Plan.	Hourly (Class A)	Measure	1. Daily Average 2. Daily Maximum
Turbidity, % of time above 5 NTU limit (61736)	%	See Recycled Water Use Plan.	Daily (Class A)	Calculate	Daily calculation
Total coliform (74056)	#/100 mL	See Recycled Water Use Plan.	• Daily (Class A) • 3/Week (Class B) • Weekly (Class C)	Grab (See note b.)	1. Median of the last 7 days of analysis 2. Maximum Single Sample
E. coli (51040)	#/100 mL	See Recycled Water Use Plan.	Weekly (Class D)	Grab	1. Monthly Geometric Mean 2. Maximum Single Sample
Total Kjeldahl, Nitrogen (00625)	mg/L	See Recycled Water Use Plan.	Quarterly	Grab	Value

Item or Parameter (See note c.)	**Units**	**Time Period**	**Minimum Frequency**	**Sample Type/ Required Action**	**Report** (See note a.)
Nitrite + Nitrate (NO_2+NO_3) (00630)	mg/L	See Recycled Water Use Plan.	Quarterly	Grab	Value
Total Ammonia [as N] (00610)	mg/L	See Recycled Water Use Plan.	Quarterly	Grab	Value
Total Phosphorus (00665)	mg/L	See Recycled Water Use Plan.	Quarterly	Grab	Value
Nitrogen Loading Rate	lb/acre-year	See Recycled Water Use Plan.	Annually	Calculate	Value for each field

Notes:

a. All data collected should be included in the Recycled Water Annual Report in addition to monthly and quarterly reporting as indicated.

b. Calculations of the median total coliform levels in Classes A – C are based on the results of the last seven days that analyses have been completed. Daily is a 24-hour period.

c. Use of Class A, Class B, Class C, Class D and nondisinfected recycled water is not currently allowed. To apply Class A, Class B, Class D or nondisinfected recycled water, the permittee must submit a revised recycled water use plan as required by Schedule D, Condition 4.

5. Biosolids Monitoring Requirements: Outfall 003

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 Ammoniacal Nitrogen (NH_3-N) Total Phosphorus (P) Potassium (K) pH (S.U.) Total Solids Volatile Solids	As described in DEQ-approved Biosolids Management Plan, but not less than the frequency in Table B5.	As described in DEQ-approved Biosolids Management Plan
Pollutants: As, Cd, Cu, Hg, Pb, Mo, Ni, Se, Zn, mg/kg dry weight	As described in DEQ-approved Biosolids Management Plan, but not less than the frequency in Table B5.	As described in DEQ-approved Biosolids Management Plan
Pathogen reduction	As described in DEQ-approved Biosolids Management Plan, but not less than the frequency in Table 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
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)

SCHEDULE C: COMPLIANCE SCHEDULE

A compliance schedule is not part of this permit.

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, permittee must submit a level 1 mixing zone study. (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. Recycled Water Use Plan

In order to distribute recycled water, the permittee must develop and maintain a DEQ-approved Recycled Water Use Plan meeting the requirements in OAR 340-055-0025. The permittee must submit this plan or any significant modifications to DEQ for review and approval with sufficient time to clear DEQ review and a public notice period prior to distribution of recycled water. The permittee is prohibited from distributing recycled water prior to receipt of written approval of its Recycled Water Use Plan from DEQ. The permittee must keep the plan 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 plan are enforceable requirements under this permit. 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, changes to utilization dates or changes in use within the recycled water class.

a. Recycled Water Annual Report – If the permittee distributes recycled water under a recycled water use plan, the permittee must submit a recycled water annual report by the date specified in Table B1: Reporting Requirements and Due Dates. The permittee must use DEQ approved recycled water annual report form. This report must include the monitoring data and analytical laboratory reports for the previous year's monitoring required under Schedule B.

5. Exempt Wastewater Reuse at the Treatment System

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

a. The recycled water is an oxidized and disinfected wastewater.

b. The recycled water is used at the wastewater treatment system site where it is generated or at an auxiliary wastewater or sludge treatment facility that is subject to the same NPDES or WPCF permit as the wastewater treatment system.

c. Spray and/or drift from the use does not migrate off the site.

d. Public access to the site is restricted.

6. 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.

7. Biosolids Management Plan

The permittee must 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 implementing any significant changes to the biosolids program. 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.

8. 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.

9. 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.

When compliance with 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.

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.

10. Industrial User Survey

Industrial User Survey

a. By the date listed in Table B1, the permittee must conduct an industrial user survey as described in 40CFR 403.8(f)(2)(i-iii) to determine the presence of any industrial users discharging wastewaters subject to pretreatment and submit a report on the findings to DEQ. The purpose of the survey is to identify whether there are any industrial users discharging to the POTW and ensure regulatory oversight of these discharges to state waters.

b. Should DEQ determine that a pretreatment program is required, the permit must be reopened and modified in accordance with 40 CFR 403.8(e)(1) to incorporate a compliance schedule for development of a pretreatment program. The compliance schedule must be developed in accordance with the provisions of 40 CFR 403.12(k), and must not exceed twelve (12) months.

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 diffuser ports are intact, clear, and fully functional. The inspection must verify the latitude and longitude of the diffuser. The permittee must submit a written report to DEQ regarding the results of the outfall inspection by the date in Table B1. The report must include a description of the outfall as originally constructed, the condition of the current outfall and identify any repairs needed to return the outfall to satisfactory condition.

SCHEDULE E: PRETREATMENT ACTIVITIES

A pretreatment program is not part of this permit.

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 includes 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 insure 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 B**7.**
   (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 *BOD_5* means five-day biochemical oxygen demand.
E2. *CBOD* or *$CBOD_5$* 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. m^3/d means cubic meters per day.
E12. *MGD* means million gallons per day.
E13. *Average monthly effluent limitation* as defined at 40 CFR § 122.2 means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
E14. *Average weekly effluent limitation* as defined at 40 CFR § 122.2 means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.
E15. *Daily discharge* as defined at 40 CFR § 122.2 means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge must be calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge must be calculated as the average measurement of the pollutant over the day.
E16. *24-hour composite sample* means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
E17. *Grab sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
E18. *Quarter* means January through March, April through June, July through September, or October through December.
E19. *Month* means calendar month.
E20. *Week* means a calendar week of Sunday through Saturday.
E21. *POTW* means a publicly-owned treatment works.

State of Oregon
Department of
Environmental
Quality

National Pollutant Discharge Elimination System
Permit Fact Sheet
City of Rogue River

Permittee	City of Rogue River Rogue River STP 5680 Foothill Boulevard Rogue River, OR, 97537
Existing Permit Information	File Number: 76030 Permit Number: 102588 EPA Reference Number: OR0023043 Category: Domestic Class: Minor Expiration Date: 8/31/2007
Permittee Contact	Michael Bollweg Public Works Director 541-582-4401, ext. 105 PO Box 1137 Rogue River, OR, 97537
Receiving Water Information	Receiving stream/NHD name: Rogue River NHD Reach Code & % along reach: 17100308000035 – 78.69% USGS 12-digit HUC: 171003080401 OWRD Administrative Basin: Rogue ODEQ LLID & River Mile: 1244292424210 – 110 Assessment Unit ID: OR_SR_1710030804_04_106341
Proposed Action	Permit Renewal Application Number: 975556 Date Application Received: 3/05/2007
Permit Writer	Helen Sanders 541-241-0152 Date Prepared: (final date prior to PN)

NPDES Permit Fact Sheet
City of Rogue River

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NPDES Permit Renewal Fact Sheet
City of Rogue River

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

A summary of the major changes to the permit are listed below:

- Recycle Water Reuse has been added to the permit with conditions that operations can only commence once a Recycle Water Reuse Plan has been approved by DEQ.
- The thermal load limit in Schedule A will change from 29 million BTU/day (converted to 7.0 million kcals/day) to a combination of static limits varying from 11 to 20 million kcal/day and flow-based limits from April to October.
- The permittee will be required to perform a mixing zone study for the next permit renewal. This is stated in Schedule D of the permit.
- UV dose and UV transmittance will be added as a continuous monitoring requirement in Schedule B.
- Alkalinity, dissolved oxygen, Oil and Grease, total dissolved solids will be included in the effluent monitoring requirements.

2. Facility Description

2.1 Wastewater Facility

The Rogue River sewage treatment facility serves the City of Rogue River with a population of about 2,418 and discharges into the Rogue River. The facility is located at 5680 Foothill Boulevard, Rogue River, OR, 97537.

The treatment plant's design maximum dry weather design flow is 0.48 million gallons per day (MGD) and the wet weather design flow is 0.63 MGD. The last major upgrade to the system was completed in 1997.

The treatment plant's operation includes twin Sequencing Batch Reactor (SBR) units. Raw sewage is pumped from an influent pump station up to the headworks at the facility. The pump station has three submersible screw-centrifugal, single speed pumps that are rated at 1.2 MGD. The headworks consists of a mechanical bar screen and gravity grit removal. An ultrasonic level sensor measures the influent flow. Each treatment unit has a capacity of 0.25 million gallons. Each tank continuously receives flow from the flow splitter at the headworks. Sludge is pumped by fixed rate pumps to the digesters (124,540 gallons each). Effluent from the SBR is decanted through an automatic variable level decant system. Discharged effluent then flows to the equalization basins and is sent to the UV disinfection system. After UV disinfection, the effluent flows into the Rogue River at river mile 110. The Outfall 001 location is about 20 feet from shore and at least 1 foot in depth.

The facility operation is permitted to include Class B biosolid land application to farmland in Jackson County in the summer. The Biosolids Management Plan provides additional details. Biosolids are handled in a two-stage process. The first stage is a pair of aerobic digesters. Each SBR currently feeds to its own digester, and therefore the two digesters are not operated in series. The digesters are periodically allowed to settle, and the supernatant decanted back to the process to increase the solids content under aeration. Digested solids are periodically removed from the digesters and sent to a lined lagoon for further treatment. Solids are removed from the lagoon using a bottom drainpipe. Polymer is added to the solids stream, and then allowed to settle in a tank, followed by a Parkson unit for de-watering and then transferred to the solar barn. Supernatant is then returned to the headworks of the plant. A biosolid management plan (BMP) was last approved on Oct. 12, 2000. The facility does not accept hauled waste.

This renewal permit includes allowance for recycle water reuse contingent on the DEQ approval of a Recycle Water Reuse Plan. There is notation in the permit that Recycle Water Reuse may only occur after the Recycle Water Reuse Plan has gone through DEQ Public Notice.

Figure 2-1: Rogue River WWTP Location and Outfall

Figure 2-2: Rogue River WWTP Schematic

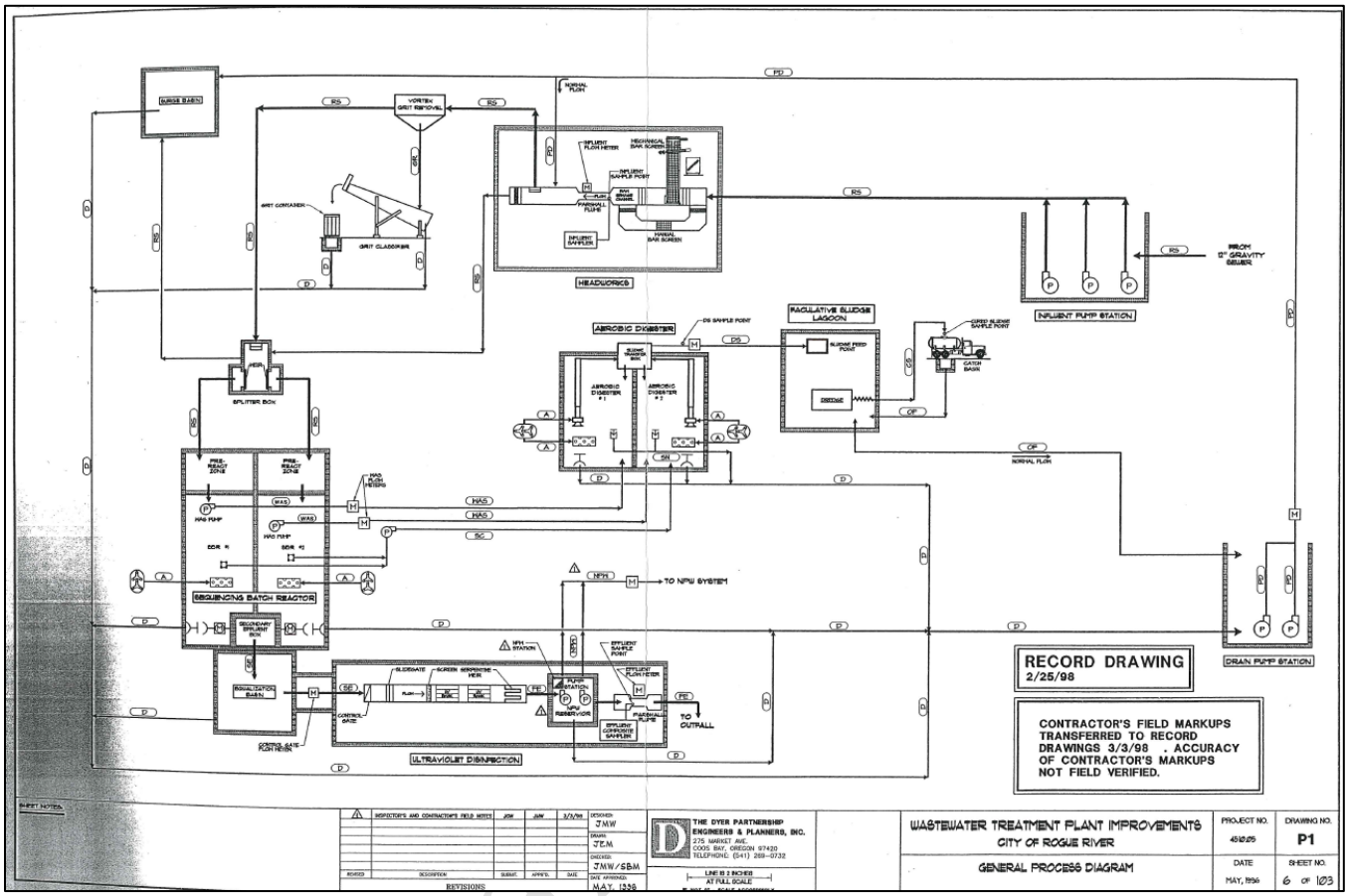

Table 2-1: List of Outfalls

Outfall Number	Type of Waste	Lat/Long	Design Flow[1] (mgd)	Existing Flow[2] (mgd)
001	Treated Wastewater	42.4313, -123.1836	0.48	0.46
002	Recycle Water Reuse	-	-	-
003	Biosolids	-		-

1. Design Flow = design average dry weather flow
2. Existing Flow = existing average monthly dry weather flow

2.2 Compliance History

A Warning Letter with Opportunity to Correct was issued on August 16, 2006 for exceeding $CBOD_5$ mass load limits. Another Warning Letter was issued on May 2, 2007 for failure to monitor for ammonia. A third Warning Letter was issued on June 30, 2009 for several exceedances of $CBOD_5$ mass load limits. The most recent Warning Letter was issued on Feb. 28, 2017 for an exceedance of bacteria limits and TSS mass load limits. The most recent compliance inspection was conducted on August 3, 2021 and no violations were noted.

2.3 Stormwater

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

2.4 Industrial Pretreatment

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

2.5 Wastewater Classification

OAR 340-049 requires all permitted municipal wastewater collection and treatment facilities receive a classification based on the size and complexity of the systems. DEQ evaluated the classifications for the treatment and collection system, which are publicly available at: https://www.deq.state.or.us/wq/opcert/Docs/OpcertReport.pdf.

3. Schedule A: Effluent Limit Development

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

3.1 Existing Effluent Limits

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

Table 3-1: Existing Effluent Limits

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
$CBOD_5$ (May 16 to Nov 15) (See note a.)	mg/L	10	15	
	lb/day	32	51	70
	% removal	85	-	-
TSS (May 16 to Nov 15)	mg/L	10	15	
	lb/day	32	51	70
	% removal	85	-	-
BOD_5 (November 16 to May 15)	mg/L	30	45	
	lb/day	110	160	210
	% removal	85	-	-

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
TSS (November 16 to May 15)	mg/L	30	45	
	lb/day	110	160	210
	% removal	85	-	-
pH (Year-round)	SU	Instantaneous limit between a daily minimum of 6.0 and a daily maximum of 9.0		
E. coli (Year-round)	#/100 mL	Must not exceed a monthly geometric mean of 126, no single sample may exceed 406		
Excess Thermal Load Limit (ETLL) (Year-round)	million BTU (MBTU/day)	7-day average shall not exceed 29 million BTU per day		

Note:

a. The $CBOD_5$ concentration limits are considered equivalent to the minimum design criteria for BOD_5 specified in OAR 340-041.

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 (BOD_5), total suspended solids (TSS) and pH (i.e., federal secondary treatment standards). Substitution of 5-day carbonaceous oxygen demand ($CBOD_5$) for BOD_5 is allowed. The numeric standards for these pollutants are contained in 40 CFR 133.102. In addition, DEQ has developed minimum design criteria for BOD_5 and TSS that apply to specific watershed basins in Oregon. These are listed in the basin-specific criteria sections under OAR 340-041-0101 to 0350. During the summer low flow months as defined by OAR, these design criteria are more stringent than the federal secondary treatment standards. The basin-specific criteria are not effluent limits but are implemented as design criteria for new or expanded wastewater treatment plants. The table below shows a comparison of the federal secondary treatment standards and the basin-specific design criteria for the Rogue basin.

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

Parameter	Federal Secondary Treatment Standards		Rogue Basin-Specific Design Criteria (OAR 340-041-0275)
	30-Day Average	7-Day Average	Monthly Average
BOD_5 or $CBOD_5$ (mg/L)	30	45	10 mg/L (May 1 – Oct. 31)
TSS (mg/L)	30	45	10 mg/L (May 1 – Oct. 31)
pH (S.U.)	6.0 – 9.0. (instantaneous)		6.5 – 8.5 (instantaneous)

Parameter	Federal Secondary Treatment Standards		Rogue Basin-Specific Design Criteria (OAR 340-041-0275)
	30-Day Average	7-Day Average	Monthly Average
BOD_5 or $CBOD_5$ and TSS % Removal	85%	Not applicable	Not applicable

The limits for BOD_5 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)b. For any new facility or any facility that has expanded its dry weather treatment capacity after June 30, 1992, OAR 340-041-0061(9)(b) requires that the mass load limits be calculated based on the proposed treatment facility capabilities and the highest and best practicable treatment to minimize the discharge of pollutants. The permittee's facility has been engineered to achieve $CBOD_5$ and TSS monthly average concentrations of 10 mg/L during the dry weather season and 30 mg/L of BOD_5 and TSS during the wet weather season. DEQ uses the actual maximum monthly flow to calculate the mass load limits as shown below for the wet and dry weather season. The mass load limits were calculated based on the capacity of the treatment system and described in two Department initiated memos dated November 13, 2000, and November 29, 2000. This adjustment is because the City of Rogue River hired the Dyer Partnership in 1996 to prepare the report *Evaluation of BOD and TSS Mass Load Increase and Mixing Zone Extension.* In this report new mass load limitations were proposed to BOD_5 and TSS. The Department reviewed this information using technology-based calculations and proposed alternate mass load effluent limitations, as mentioned in the November 2000 memos, and calculated with a Streeter-Phelps model. Discussions between DEQ and the permittee at time determined that the treatment facility should be capable of producing an effluent quality of 9 mg/L at the design average dry weather flow and, that it would be reasonable to use this as that basis of the low flow season mass load limitations. This results in a monthly average load of 36 ppd (9 mg/L x 0.48 x 8.34). Wet weather mass load limitations were based on the facility designs for the variation in concentrations and flows during this season.

Monthly Avg Mass Load = Actual Flow* x Monthly Concentration Limit x Unit Conversion factor

Weekly Average Mass Load = 1.5 x Monthly Average Mass Load Limit

Daily Maximum Mass Load = 2 x Monthly Average Mass Load Limit

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 /$CBOD_5$ Concentration Limit (mg/L)
Dry Weather	0.48	10	10
Wet Weather	0.63	30	30
Design flow comments: Daily average design weather flow (DADWF) Dry weather limits are for $CBOD_5$ and wet weather limits are for BOD_5			

Dry Weather Mass Load Calculations:

Monthly Average: 0.48[design flow] mgd x 10 [concentration] mg/L x 8.34 = 40.032 (Rounded to two significant figures, 40) lbs/day

Weekly Average: 35.9 lbs/day monthly average x 1.5 = 60 lbs/day

Daily Maximum: 35.9 lbs/day monthly average x 2 = 80 lbs/day

Wet Weather Mass Load Calculations:

Monthly Average: 0.63 [design flow] mgd x 30 [concentration] mg/L x 8.34 = 157.6 (Rounded to two significant figures 160)

Weekly Average: 157.6 lbs/day monthly average x 1.5 = 236.4 (Rounded to two significant figures 240)

Daily Maximum 157.6 lbs/day monthly average x 2 = 315

The mass loads calculated above are less stringent than what is in the current permit. Due to Antibacksliding and Antidegradation, DEQ will retain the limits in the current permit.

The proposed BOD_5/$CBOD_5$ and TSS limits are listed in the following table.

Table 3-4: BOD_5/$CBOD_5$ and TSS Technology Based Effluent Limits

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
$CBOD_5$ (May 16 to Nov 15)	mg/L	10	15	-
	lbs/day	32	51	70
	% removal	85	-	-

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
TSS (May 16 to Nov 15)	mg/L	10	15	-
	lbs/day	32	51	70
	% removal	85	-	-
BOD_5 (Nov 16 to May 15)	mg/L	30	45	-
	lbs/day	110	160	210
	% removal	85	-	-
TSS (Nov 16 to May 15)	mg/L	30	45	-
	lbs/day	110	160	210
	% removal	85	-	-

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 Rogue River. These uses are listed in OAR-340-041-0271 for the Rogue basin.

- 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
- Commercial navigation and transportation

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

The following table lists the parameters that are on the 2022 303(d) list (Category 5) within the discharge's stream reach. The table also lists any parameters with a TMDL wasteload allocation assigned to the facility (Category 4).

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

Water Quality Limited Parameters (Category 5)	
AU ID:	OR_SR_1710030804_04_106341
AU Name:	Rogue River
AU Status:	Impaired
Year Listed	2010
Year Last Assessed	2022
303d Parameters (Category 5)	Fecal Coliform, Turbidity, Temperature year-round, Temperature- spawning
TMDL Parameters (Category 4)	
Temperature, fecal coliform	

3.3.3 TMDL Wasteload Allocations

DEQ issued a TMDL for the Rogue River Basin in 2008. The temperature Wasteload Allocations (WLAs) for Rogue River STP apply during the critical period of April 1 through October 31. WLAs from this temperature TMDL that are applicable to the permittees are listed in the following table. The TMDL did not assign a WLA for Rogue River STP for fecal coliform. The *E. coli* limits in the permit are expected to be protective of the water quality criteria for bacteria (See Section 3.3.8).

Table 3-6: Applicable WLAs

Parameter	WLA	Time Period
Temperature	See Section 3.3.7, below	April 1 through October 31

3.3.4 Pollutants of Concern

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

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

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

Table 3-7: Domestic Toxic Pollutants of Concern

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

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

Table 3-8: Pollutants of Concern

Pollutant	How was pollutant identified?
pH	Effluent Monitoring
Temperature	Effluent Monitoring
E. coli	Effluent Monitoring
Total Ammonia Nitrogen	Effluent Monitoring

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

3.3.5 Regulatory Mixing Zone

The proposed permit contains a mixing zone as allowed per OAR 340-041-0053. The mixing zone in the existing permit is describes as follows:

The allowable mixing zone is that portion of the Rogue River contained within a band extending out from the bank to the center of the Rogue River and extending from a point 10 feet upstream of the outfall to a point 150 feet downstream from the outfall. The Zone of Immediate dilution (ZID) shall be defined as that portion of the allowable mixing zone that is within 15 ft downstream from the point of discharge.

The proposed mixing zone has been updated to reflect current MZ sizing description guidance. The upstream portion of the RMZ has been removed as there is no expectation of tidal influence or backflow up the stream.

The allowable Regulatory Mixing Zone (RMZ) is that portion of the Rogue River extending from the outfall to a point 150 ft downstream from the outfall. The Zone of Immediate dilution (ZID) shall be defined as the portion of the allowable mixing zone that is within 15 ft downstream from the point of discharge.

The dilution factors at the edge of the zone of initial dilution and mixing zone are shown in Table 3-9. These dilutions are based on a 1996 mixing zone study reviewed by DEQ. For this memo, DEQ used CORMIX 12.0.1 to simulate the discharge and provide updated dilution values at the edge of the ZID (15 feet) and edge of the RMZ (150 feet). These updated model runs are documented in a 2023 Mixing Zone Memo which is part of the administrative record. The model inputs and data sources are shown in the Outfall Description, Receiving Water, and Effluent Flow Parameters tables in the mixing zone memo. The exact model inputs used in each design case are included in the mixing zone memo and model files are available in the administrative record.

Table 3-9: Mixing Zone Dilutions

Dilution Summary – May 16 to Nov 15 (Dry Weather)						
Water Quality Standard	**Stream Flow (cfs)**		**Effluent Flow (mgd)**		**Dilution Factor**	**Location**
	Statistic	**Flow**	**Statistic**	**Flow**		
Aquatic Life, Acute	1Q10	894	☐ ADWDF x PF ☒ Max Daily Avg ☐ Other	0.46	6.9	ZID
Aquatic Life, Chronic	7Q10	913	☐ ADWDF ☒ Max Monthly Avg ☐ Other	0.33	220	RMZ
Human Health, Non-Carcinogen	30Q5	1053	☐ ADWDF ☒ Max Monthly Avg ☐ Other	0.33	250	RMZ
ADWDF = Average dry weather design flow *PF = Peaking factor (1.5)*						
Comments: 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.						

Dilution Summary – Nov 16 to May 15 (Wet Weather)						
Water Quality Standard	**Stream Flow (cfs)**		**Effluent Flow (mgd)**		**Dilution Factor**	**Location**
	Statistic	**Flow**	**Statistic**	**Flow**		
Aquatic Life, Acute	1Q10	1028	☐ ADWDF x PF ☒ Max Daily Avg ☐ Other	0.39	7.7	ZID
Aquatic Life, Chronic	7Q10	1081	☐ ADWDF ☒ Max Monthly Avg ☐ Other	0.25	310	MZ
Human Health, Non-Carcinogen	30Q5	1278	☐ ADWDF ☒ Max Monthly Avg ☐ Other	0.25	310	MZ
ADWDF = Average dry weather design flow *PF = Peaking factor (1.5)*						
Comments: 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.						

3.3.6 pH

The pH criterion for this basin is 6.5 – 8.5 per OAR 340-041-0275. DEQ determined there is no reasonable potential for the discharge to exceed the pH criterion at the edge of the mixing zone. The proposed pH limits are 6.0 – 9.0 SU based on the WQBEL analysis. The following table provides a summary of the data used for the analysis.

Table 3-10: pH Reasonable Potential Analysis

INPUT	Lower pH Criteria	Upper pH Criteria
1. Dilution at mixing zone boundary	220.0	220.0
2. Upstream characteristics		
a. Temperature (deg C)	18.3	5.4
b. pH	7.6	8.1
c. Alkalinity (mg CaCO3/L)	33.5	33.5
3. Effluent characteristics		
a. Temperature (°C)	24.5	16.7
b. pH (S.U.)	6.0	9.0
c. Alkalinity (mg CaCO3/L)	134.6	134.6
4. Applicable pH criteria	6.5	8.5
pH at mixing zone boundary	7.4	8.1
Is there reasonable potential?	No	No
Proposed effluent limits	6.0	9.0
Effluent data source: ICIS Summary Data 2019-2023.		
Ambient data source: AWQMS Ambient Data (2019-2023) ORDEQ Station-10421 and ORDEQ-10422.		

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 3-11: Temperature Criteria Information

Applicable Temperature Criterion	Rearing/Migration 18ºC (OAR 340-041-0028(4)(c)
Applicable dates: Year-round	
Salmon/Steelhead Spawning 13 °C? OAR 340-041-0028(4)(a)	☒Yes ☐No
Applicable dates: Oct. 15 – May 15	
WQ-limited?	☒Yes ☐No
TMDL wasteload allocation assigned?	☒Yes ☐No
Applicable dates: April 1 – Oct. 31	
TMDL based on natural conditions criterion?	☒Yes ☐No
Cold water summer protection criterion applies?	☐Yes ☒No
Cold water spawning protection applies?	☐Yes ☒No
Comments:	

The fish and spawning use designations for the receiving stream are contained in OAR 340-041-0271, Figures 271A and 271B. Figure 271A indicates that the fish use designation is salmon and trout rearing and migration habitat year-round, with an applicable biologically based numeric criterion of 18.0 ºC expressed as a 7-day average maximum (7dAM). Figure 271B indicates that the designated salmon & steelhead spawning use is from October 15 – May 15, with an applicable biologically based numeric criterion of 13.0 ºC (7dAM). As noted in Section 3.3.3 above, the Rogue River downstream of the outfall is currently listed as water quality limited for the 18.0 ºC criterion and the 13.0 ºC criterion. The 2008 Rogue Basin TMDL was developed to address both of these criteria year-round. The TMDL gave wasteload allocations (WLAs) to the facility for the April 1 through October 31 period. The TMDL also determined that an allocation and associated limits were not necessary for the remainder of the year.

The WLA for the facility, expressed as Equation 2-4 in the TMDL, was used to directly convert the wasteload allocations into thermal effluent limits:

$$\text{ETL Limit} = (\Delta T) \times (Q_e + Q_r) \times C_f$$

Where,

ETL Limit = Excess Thermal Load Limit, million kcal/day. 7-day average
ΔT = 0.0043 °C allowable temperature increases from TMDL (from TMDL Table 2.16)
Q_e = average dry weather design flow of effluent flow rate, 0.67 cfs (0.43 MGD)
Q_r = river flow rate, upstream, cfs
C_f = conversion factor, 2.446 million kcal·s / °C·ft^3·day

This equation may be modified to express the effluent flow in units of million gallons per day (MGD) by also converting the river flow from cfs to MGD (0.646 cfs/MGD) and using the conversion factor (C_f) of 3.785 million kcal·day / °C·MG·day:

$$\mathbf{ETLL = 0.0043 \times (Q_e + Q_r \times 0.646) \times 3.785}$$

Where,

ETLL = Excess Thermal Load Limit, million kcal/day. 7-day average
ΔT = 0.0043 °C allowable temperature increase (from TMDL Table 2.16)
Q_e = effluent flow rate (MGD)
Q_r = river flow rate, upstream, cfs
C_f = conversion factor, 2.446 million kcal·s / °C·ft^3·day

The TMDL allows for either a flow-based effluent limit (equation above) or a static limit based on the 7Q10 low river flow and the facility design flow. Each of these limits are 7-day rolling averages. The estimated upstream 7Q10 low river flows[1] for various periods within the April – October period is provided in the table below. As provided for in the TMDL, the average dry weather design flow (0.43 MGD) was used to determine the static limits. The table also includes the temperature criteria to be used for permit compliance determination (TMDL Table 2.15(E) on TMDL page 2-55).

Table 3-12: Temperature Criterion Effluent Limits

Time Period	Applicable TMDL Criterion, °C (T_R)	7Q10 (cfs) Flow at Rogue River WWTP	Critical Case ETLL, million kcal/day (Option A)	Stream Flow based limits, million kcal/day (Option B)
Apr 1 – May 15	13.0	1257	13	**0.0043 x (Q_e + Q_r x 0.646) x 3.785**
May 16 – May 31	18.0	1979	21	
Jun. 1 – Jun. 15		1938	20	
Jun. 16 – Jun. 30		1292	14	
Jul 1 – Aug 31	19.8			
Sep 1 – Sep 15	18.8			
Sep. 16 – Oct. 15	18.0	1003	11	
Oct 16 – Oct 31	13.0			

[1] The nearest upstream USGS gage is 14359000 Rogue River at Raygold near Central Point. Daily flows were evaluated from January 1, 1984 to December 31, 2023.

The following equation is used to calculate the permittee's daily effluent ETL (the excess thermal load discharged from the facility):

$$ETL=Q_e \times (T_e-T_r) \times 3.785$$

Where,

ETL= Excess Thermal Load, million Kcals/day
Q_e= Daily average effluent flow, MGD
T_e= Daily maximum effluent temperature, °C
T_r= Applicable criterion, °C (from table above)
3.785= Conversion factor

The ETL limits are based on a rolling seven-day average of daily maximums. Therefore, when the ETL is calculated, compliance will be evaluated starting on the seventh day of each TMDL period.

DEQ conducted a separate temperature analysis for the period that the TMDL limit does not apply (November 1 – March 31). For this, DEQ conducted a temperature reasonable potential analysis with consideration for the spawning season (Oct 15 – May 15). The applicable temperature criterion is 13 ºC. Since the TMDL does not have a WLA assigned for this timeframe, this analysis is based on the portion of Oregon's temperature rule for implementing the criterion prior to the development of a TMDL. The effluent temperature value used in this analysis is 19.9 °C. This value was taken from the facility's DMRs for the period from November 1 to March 31 and represents the maximum 7-day average of the daily maximums for the spawning season. The results of this RPA indicate that there is no potential for the facility's discharge to exceed the temperature standard (see Appendix A).

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 ºC or more for salmon and steelhead, and 9 ºC or more for bull trout.

  Rogue River: While this segment of the receiving stream is identified as having salmonid spawning use, and that active fall chinook spawning has been recorded in the general area, but there is no information indicating that there is an active salmonid spawning area where spawning redds are located or likely to be located within the mixing zone. As noted above, DEQ performed an analysis of the discharge related to the spawning criterion. The result of this analysis indicates that the discharge does not have a reasonable potential to heat the receiving stream above the spawning criterion by more than an insignificant amount at the edge of the mixing zone. Since the likely location of any active salmonid spawning areas would be outside of the mixing zone, the impairment of an active spawning area is prevented or minimized. See Appendix B.

- 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 ºC or more to less than 2 seconds.

  Rogue River: The daily maximum-recorded temperature of the discharge to Rogue River for the 2019 to 2023 period was 31.6 ºC, below the 32 ºC criterion. Therefore, the discharge does not have the potential to cause acute impairment or instantaneous lethality due to the thermal plume.

- 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 ºC or more to less than 5% of the cross-section of 100% of the 7Q10 flow of the water body.

  Rogue River: An analysis related to thermal shock, included in Appendix B, indicates that when both the effluent and upstream receiving water temperatures are at their maximum measured values, the plume's temperature at 5% of the receiving stream's cross-sectional area will be below 25 °C (21.5 °C), a situation that is not likely to cause thermal shock. Based on this analysis, thermal shock caused by the discharge is prevented or minimized.

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

  Rogue River: The maximum recorded receiving water upstream of the discharge location is 21.3 ºC (daily maximum) and the maximum effluent temperature is 31.6 ºC (daily maximum). A conservative analysis related to migration blockage, included in Appendix B, indicates that when the effluent plume reaches 25% of the receiving stream's cross-sectional area, the plume's temperature will not be above 21.0 °C, and migration blockage caused by the discharge is therefore prevented or minimized.

Table 3-13: Thermal Plume Effluent Limit

Effluent limit needed? ☐Yes ☒No
Calculated limit: N/A
Applicable timeframe: N/A
Comments:

3.3.8 Bacteria

OAR 340-041-0009(6)(b) requires discharges of bacteria into freshwaters meet a monthly geometric mean of 126 *E. coli* per 100 mL, with no single sample exceeding 406 *E. coli* per 100 mL. 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 3-14: Proposed *E. coli* Limits

E. coli **(#/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 Ammonia Nitrogen

DEQ's ammonia criteria vary with changes in pH and temperature. DEQ performed a reasonable potential analysis that accounts for changes in the effluent and receiving water pH and temperature to determine the appropriate ammonia criteria. The following tables provides a summary of the data used for the ammonia analysis and the results of the analysis. The existing permit does not have an ammonia limit set. The RPA for permit renewal also did not find a reasonable potential to exceed ammonia criteria and will not feature ammonia limits. Tables 3-17 and 3-18 provides a summary of the RPAs for summer and winter.

Table 3-15: Ammonia Analysis Information - Summer

	Acute	Chronic	
		4-day	30-day
Dilution	6.9	220	250
Ammonia Criteria	3.6	1.7	0.7
Effluent Data Used			
Ammonia (mg/L)	8.8	8.8	
pH (SU)	7.8	7.8	
Temperature (ºC)	24.5	24.5	
Alkalinity (mg/L CaCO3)	64.0	64.0	
Receiving Stream Data Used			
Ammonia (mg/L)	0.1	0.1	
pH (SU)	8.1	8.1	
Temperature (ºC)	19.1	19.1	
Alkalinity (mg/L CaCO3)	43.5	43.5	
Ammonia Limit Needed?	No		
Calculated Limits	AML	MDL	
Ammonia (mg/L)	NA	NA	
Effluent data source			
ICIS data 2019-2023.			
Ambient data source			
AWQMS ambient data 2019-2023. Monitoring Station ORDEQ-10421 and ORDEQ-10422.			

Table 3-16: Ammonia Analysis Information - Winter

	Acute	Chronic	
		4-day	30-day
Dilution	7.7	310	310
Ammonia Criteria	6.0	3.9	1.6
Effluent Data Used			
Ammonia (mg/L)	16.0	16.0	
pH (SU)	7.8	7.8	
Temperature (ºC)	17.5	17.5	
Alkalinity (mg/L CaCO3)	64.0	64.0	
Receiving Stream Data Used			
Ammonia (mg/L)	0.2	0.2	
pH (SU)	8.0	8.0	
Temperature (ºC)	9.2	9.2	
Alkalinity (mg/L CaCO3)	46.2	46.2	
Ammonia Limit Needed?	No		
Calculated Limits	AML	MDL	
Ammonia (mg/L)	NA	NA	
Effluent data source			
ICIS data 2019-2023.			
Ambient data source			
AWQMS ambient data 2019-2023. Monitoring Station ORDEQ-10421 and ORDEQ-10422.			

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). Compliance with the antibacksliding provisions related to the thermal load limit is discussed below. The other proposed limits are the same or more stringent than those in the existing permit, so the antibacksliding provisions are satisfied for those limits.

As discussed in section 3.3.7 above, the thermal load effluent limit has been changed to meet the wasteload allocated to Rogue River STP in the 2008 Rogue River Basin TMDL. The current permit expresses the temperature limit as 29 million BTU relative to an instream temperature of 17.8 °C (64 °F). This converts to 7.0 million Kcal/day relative to an instream temperature of 18.0 °C. This is more stringent than some of the excess thermal load limits in the proposed permit. Although antibacksliding provisions generally do not allow relaxation of effluent limits in renewal permits, section 303(d)(4)(A) of the Clean Water Act allows relaxation when the receiving water is not in attainment for the limiting or related pollutant, the effluent limit is based on a TMDL wasteload allocation (WLA), and it can be shown that relaxation is consistent with antidegradation requirements. As noted above, the receiving water is water quality limited, and the new limit is based on a TMDL WLA. It also complies with the antidegradation requirement

since TMDL WLA ensures the temperature increase is an insignificant increase according to the Oregon's antidegradation rule, OAR 340-041-0004(3)(c). Therefore, the new thermal load limit based on the TMDL wasteload allocation is allowed and 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 discharge loadings as the existing permit, with the exception of the temperature (thermal load) limits as discussed above. Under Oregon's Antidegradation Rule, discharges with insignificant temperature increases are not considered degradation (OAR 340-041-0004(3)(c)). Specifically, the rule states that insignificant temperature increases authorized under OAR 340-041-0028(11) and (12) are not considered a reduction in water quality. Section 3.3.7 of this report provides an analysis of the temperature impacts of this discharge and determines appropriate effluent limits to ensure the discharge will result in temperature increases at or below those authorized under OAR 340-041-0028(11) and (12). Based on OAR 340-041-0004 and the Section 3.3.7 of this report, the discharge from the facility does not have the potential to reduce water quality as it pertains to temperature.

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 permit holder currently produces a Class B biosolids for land application by distribution or sale and anticipates continuing to do so. DEQ reviewed the biosolids management plan and land application plan. These are available for public review and comment along with the permit. Once approved after public comment, conditions in the biosolids management plan and land application plan become permit conditions.

4.3 Recycled Water or Irrigation of Industrial Wastewater

The permit holder does not currently operate a recycled water program but may develop one during the term of this permit. The permittee is not allowed irrigate without a DEQ approved recycle water reuse plan. If the permit holder chooses to develop a recycled water program, a comprehensive recycled water use plan meeting the requirements in OAR 340-055 will be submitted to DEQ for review and approval; appropriate actions must also be made to OHA and WRD. The recycled water use plan, including the locations of any proposed irrigation projects will be made available for public comment.

Schedule A of the permit requires the permittee to apply recycled water according to their recycled water use plan. Schedule A also restricts the application of recycled water to prevent the following:

- Irrigating above agronomic rates,
- Adverse impact to groundwater,
- Offsite surface runoff or subsurface drainage through drainage tile,
- Creation of odors, fly and mosquito breeding, or other nuisance conditions.

4.4 Chlorine Usage

Schedule A of the permit prohibits the permittee from using chlorine or chlorine compounds for effluent disinfection purposes.

5. Schedule B: Monitoring and Reporting Requirements

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

6. Schedule C: Compliance Schedule

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

7. Schedule D: Special Conditions

The proposed permit contains the following special conditions. The conditions include the following:

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 Recycled Water Use Plan

A condition requiring the permit holder to develop and maintain a recycled water use plan that meet the requirements in OAR 340-055-0025. The plan must also include location-specific information describing where and how recycled water is managed to protect public health and the environment.

7.5 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.

7.6 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.

7.7 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.

7.8 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.

7.9 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.

7.10 Industrial User Survey

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

7.11 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: Temperature RPA

Enter data into white cells below:			Data Metric/Source
Mixing Zone Dilution =	310		2023 Mixing Zone Memo
7Q10 =	1081	cfs	2023 Mixing Zone Memo
Effluent Flow =	0.93	mgd	2023 Mixing Zone Memo
Applicable Temperature Criterion	13	°C	
Effluent Temperature	19.9	°C	ICIS Data 2019-2023 for Nov.-March
Allowable increase =	0.3	°C	
Dilution at 25% Stream Flow =	189	dilution = (Qr*0.25)/Qe + 1	
ΔT at edge of MZ=	**0.0**	**°C**	**No Reasonable Potential**
ΔT at 25% Stream Flow=	**0.0**	**°C**	

Appendix B: Thermal Plume RPA

OAR 340-041-0053(2)(d)(A): Active Spawning Area Impairment 13.0 deg C at location of active spawning area			
Enter data into white cells below:			Data Metric/Source
Dilution at Spawning Area =	310		2023 Mixing Zone Memo
Ambient Temperature =	13	°C	AWQMS Data
Max. 7dAM Effluent Temperature =	20.7	°C	ICIS Data Summary
Applicable Temperature Criterion =	13	°C	
ΔT at Spawning Area=	**0.0**	**°C**	**No Reasonable Potential**
Temp. at Spawning Area=	**13.0**	**°C**	

OAR 340-041-0053(2)(d)(C): Thermal Shock 25 deg C at 5% of the stream cross section			
Enter data into white cells below:			Data Metric/Source
7Q10 =	913	cfs	2023 Mixing Zone Memo
Ambient Temperature=	21.3	°C	AWQMS Data 2019-2023
Effluent Flow =	0.5	mgd	2023 Mixing Zone Memo
Max Daily Effluent Temperature =	31.6	°C	ICIS Data Summary 2019-2023
5% of 7Q10 =	45.7	cfs	
5% dilution =	60	dilution = (Qr*0.05)/Qe + 1	
Temperature at 5% cross section =	**21.5**	**°C**	**No Reasonable Potential**

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:			Data Metric/Source
7Q10 =	913	cfs	2023 Mixing Zone Memo
Ambient Temperature =	21	ºC	AWQMS Data 2019-2023
Effluent Flow =	0.5	mgd	2023 Mixing Zone Memo
Max 7dAM Effluent Temperature =	31.6	ºC	ICIS Data for 2019-2023
25% of 7Q10 =	228.3	cfs	
25% dilution =	296	dilution = (Qr*0.25)/Qe + 1	
Temperature at 25% cross section =	**21.0**	**ºC**	
ΔT at 25% Stream Flow=	**0.0**	**ºC**	**No Reasonable Potential**