Oregon
Tina Kotek, Governor

Department of Environmental Quality
Northwest Region - Portland
700 NE Multnomah Street, Suite 600
Portland, OR 97232
503-229-5696
TTY 711

May 11, 2026

Jeff Aparti
City of Sandy
39250 Pioneer Blvd.
Sandy, OR 97055

CERTIFIED MAIL NO. 9589 0710 5270 3232 9139 23
RETURN RECEIPT REQUESTED

RE: Issuance of NPDES Permit no. 102492
Site Record no. 7368
EPA no. OR0026573
Facility: Sandy WWTP, 33400 SE Jarl, Boring
Clackamas County

Your National Pollutant Disposal Elimination System permit has been renewed and is enclosed. This permit is DEQ's final action on permit renewal application no. 77022. DEQ received comments during the public notice period. Changes made to the permit based on public comments are addressed in the response to comments memorandum included with your permit.

Your permit is effective on June 1, 2026. Please read your permit carefully. Compliance with your permit is required at all times.

In accordance with OAR 340-045-0035(9), you have 20 days from the permit effective date to request a hearing before the Environmental Quality Commission or its authorized representative. A request for a hearing must be made in writing and state the grounds for the request. Any hearing will be conducted as a contested case hearing in accordance with ORS 183.413 through 183.470 and OAR chapter 340, division 011. If a hearing is requested, the existing permit continues in effect until a final order is issued.

Please note that your treatment system will need to be supervised by an operator with at least a Grade III Operator Certificate and that your required operator certification levels are no longer listed on the face page of your permit. Pursuant to OAR chapter 340, division 049 your systems are classified as follows:

- Collection System: Class II
- Treatment System: Class III

If changes are made to your systems or if you have additional questions about operator certification requirements, please contact the DEQ Operator Certification program at opcert@deq.state.or.us , call 503-229-5349, or visit the website: https://www.oregon.gov/deq/wq/wqpermits/Pages/Wastewater-Operator-Certification.aspx. Current classifications for all systems requiring certified operators may be found at https://www.deq.state.or.us/wq/opcert/Docs/OpcertReport.pdf.

If you are interested in upgrading your wastewater treatment infrastructure or need assistance with treatment system design, DEQ's Clean Water State Revolving Fund offers below-market rate loans for qualified applicants to finance the planning, design and construction of water quality improvement projects. DEQ updates interest rates are updated quarterly, and rates vary by loan term, type of loan and community economic conditions. DEQ works with borrowers to ensure access to the best rates available at the time of loan signature. To learn more about eligible water quality projects and application process, please visit the Clean Water State Revolving Fund website at https://www.oregon.gov/deq/wq/cwsrf/Pages/default.aspx or call 503-229-LOAN.

If you have any questions about your permit requirements, please contact Randy Bailey at 503-229-5019 or randall.bailey@deq.oregon.gov.

Sincerely,

Tiffany Yelton-Bram
Water Quality Manager
Northwest Region

TYB:th
Enclosure: Permit, Permit Fact Sheet, and Response to Comments
ec: Water Quality SharePoint E-File, DEQ
Randy Bailey, Portland Office, DEQ
Mark Hynson, Water Quality Division, DEQ
Jeff Navarro, Water Quality Division, DEQ
AJ Thorne, City of Sandy
WQ Data Crew, DEQ w/permit
EPA, Seattle /permit
DEQ Wastewater Operator Certification Program

State of Oregon Department of Environmental Quality

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM WASTE DISCHARGE PERMIT

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

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

ISSUED TO:
City of Sandy
39250 Pioneer Blvd
Sandy, OR 97005

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Outfall Number	Outfall Location
Treated Wastewater	001	45.405259, -122.340190
Recycled Water Reuse	002	Iseli Nursery Pond IV
Emergency Overflow	003	45.406438, -122.316351
Biosolids	N/A	Specified in Biosolids Management/Land Application Plan

FACILITY LOCATION:
Sandy Wastewater Treatment Plant
33400 SE Jarl Rd.
Boring, OR 97009
County: Clackamas
EPA Permit Type: Major

RECEIVING STREAM INFORMATION:
Receiving stream/NHD name: Tickle Cr.
USGS 12-Digit HUC: 170900110604
OWRD Administrative Basin: Willamette
NHD Reach Code & % along reach: 17090011000295 80.4%
ODEQ LLID & RM: 1223744453954 RM 2.1
Integrated Report AU ID: OR_WS_170900110604_02_104546

Issued in response to Application No. 77022 received 7/31/2013. This permit is issued based on the land use findings in the permit record.

Tiffany Yelton-Bram, Water Quality Source Control Section Manager, Northwest Region

May 11, 2026
Issuance Date

June 1, 2026
Effective Date

PERMITTED ACTIVITIES

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

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

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

LIST OF TABLES

SCHEDULE A: WASTE DISCHARGE LIMITS

1. Outfalls 001 and 003 – Permit Limits

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

Table A1: Permit Limits for Outfalls 001 and 003

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
Outfall 001 and 003 Effluent Flow (May 1 – October 31)	GPD	No discharge (Daily max limit = 0 GPD)		
Outfall 001 and 003 Stream Dilution (November 1 – April 30) (See note a.)	Ratio	Daily minimum ≥ 10		
Outfall 003 Effluent Flow (November 1 – April 30)	GPD	No discharge (Daily max limit = 0 GPD) is permitted when the treatment facility's peak instantaneous flow is less than 4.0 MGD		
BOD_5 (November 1 – April 30)	mg/L	10	15	-
	lb/day	125	187	250
	% removal	85	-	-
TSS (November 1 – April 30)	mg/L	10	15	-
	lb/day	125	187	250
	% removal	85	-	-
pH (November 1 – April 30)	SU	Instantaneous limit between a daily minimum of 6.4 and a daily maximum of 9.0		
Total ammonia (as N) (November 1 – April 30)	mg/L	3.7	-	10.9
E. coli (November 1 – April 30) (See note b.)	#/100 mL	Must not exceed a monthly geometric mean of 126, no single sample may exceed 406		

Notes:

a. Stream dilution is calculated as: Dilution = $(\mathbf{Q_s + Q_e})/\mathbf{Q_e}$, where $\mathbf{Q_s}$ = Tickle Creek flow measured at gauge, cfs; $\mathbf{Q_e}$ = Combined Outfalls 001 and 003 effluent flow, cfs. (Refer to Schedule B, Tables B3 and B4, for flow monitoring requirements).

b. If a single sample exceeds 406 organisms/100 mL, the permittee may take at least 5 consecutive re-samples at 4-hour intervals beginning within 28 hours after the original sample was taken. A geometric mean of the 5 re-samples that is less than or equal to 126 *E. coli* organisms/100 mL demonstrates compliance with the limit.

2. Regulatory Mixing Zones

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

Outfall 001

The Regulatory Mixing Zone (RMZ) for Outfall 001 is that portion of Tickle Creek extending 20 feet downstream from the point where the discharge meets Tickle Creek. The Zone of Immediate Dilution (ZID) is that portion of Tickle Creek extending 2 feet from where the discharge meets Tickle Creek.

Outfall 003

The Regulatory Mixing Zone (RMZ) for Outfall 003 is that portion of Tickle Creek extending 50 feet downstream from the point where the discharge meets Tickle Creek. The Zone of Immediate Dilution (ZID) is that portion of Tickle Creek extending 5 feet from where the discharge meets Tickle Creek.

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 A2.

b. Managed in accordance with its 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 A2: Recycled Water Limits

Class	Level of Treatment (after disinfection unless otherwise specified)	Beneficial Uses
A	Class A recycled water must be oxidized, filtered and disinfected. Before disinfection, unless otherwise approved in writing by DEQ 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	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	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, nonstructural firefighting using aircraft, street sweeping, or sanitary sewer flushing.

Class	Level of Treatment (after disinfection unless otherwise specified)	Beneficial Uses
D	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.

4. Biosolids

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

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

b. Agronomic Rates for Nutrient Loading - The permittee must apply biosolids at or below the agronomic rates approved by DEQ to minimize potential groundwater degradation. At the time of sale or distribution of the exceptional quality biosolids, the origin must be identified and biosolids analyses must be available to appliers or users of the biosolids.

c. Land Application Site Authorization - The permittee must obtain written site authorization from DEQ for each land application site prior to land application (see Schedule D) and follow the site-specific management conditions in the DEQ-issued site authorization letter. This requirement does not apply for exceptional quality biosolids, which may be land applied as any other fertilizer or soil amendment.

d. Pathogen and Vector Attraction Reduction - Prior to land application, the permittee must ensure that biosolids meet one of the pathogen reduction standards under 40 CFR 503.32 and one of the vector attraction reduction standards under 40 CFR 503.33. For exceptional quality biosolids, the biosolids must meet one of the Class A pathogen reduction requirements in 40 CFR 503.32(a) and one of the vector attraction reduction requirements in 40 CFR 503.33(b)(1) through (b)(8) prior to land application.

e. Pollutants - The permittee must not apply biosolids containing pollutants in excess of the ceiling concentrations shown in Table A3. The permittee may apply biosolids containing pollutants in excess of the pollutant concentrations. However, the total quantity of these pollutant(s) cannot exceed the cumulative pollutant loading rates in Table A3. For biosolids to be managed as exceptional quality biosolids, the biosolids cannot exceed any of the ceiling concentration limits or the pollutant concentration limits in Table A3.

f. Approval to Apply Cumulative Pollutant Loading Rates - If the permittee's biosolids are subject to the cumulative pollutant loading rates as described in section e. above, the permittee must obtain specific approval from DEQ to land apply these biosolids in accordance with their approved Biosolids Management and Land Application Site Authorization (see Schedule D).

Table A3: 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

For discharges from Outfalls 001 and 003, the permittee is prohibited from using chlorine or chlorine compounds for effluent disinfection purposes. Chlorine residual in Outfall 001 or 003 effluent resulting from chlorine or chlorine-containing chemicals used for maintenance or other purposes is also prohibited. The permittee is only allowed to use chlorine or chlorine compounds for disinfection purposes for recycled water for discharges through Outfall 002.

6. Mercury Minimization Plan

a. By the date listed in Table B1, the permittee must submit an MMP (Mercury Minimization Plan) to DEQ for review and approval.

b. The permittee must use DEQ MMP template for final plans and modifications unless authorized in writing by DEQ to use an alternative.

c. If DEQ comments on the MMP, the permittee must respond to DEQ's comments in writing within 30 calendar days by submitting an updated MMP.

d. After resolving comments (if any) on the plan, DEQ will post the MMP to solicit public comment for a minimum of 35 days.

e. The permittee must begin implementation of the plan within 90 calendar days after being notified in writing that the public comment period has ended and DEQ has approved the plan.

f. The MMP must include:

i. Facility name and permit number

ii. Name and signature of party responsible for developing or reviewing the plan

iii. Plan submittal date

iv. Identification and evaluation of current and potential mercury sources, including industrial, commercial, and residential sources

v. An implementation plan that includes specific methods for reducing mercury

vi. Mercury sample results for samples collected during the past five years, if collected

vii. Annual average effluent mercury concentrations and mass loads, if collected

viii. Annual average biosolids concentrations and mass loads, if collected

g. If DEQ determines that the MMP is not effective at reducing mercury concentrations, DEQ may require further changes to the MMP and may reopen the permit to modify the permit conditions.

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 (See note a.)	Due Date	Report Form (See note b.)	Submit To:
Mercury Minimization Plan (see Schedule A)	One time	Submit by 6/15/2028	Report	Electronic reporting as directed by DEQ
Tables B2, B3, and B4 Influent Monitoring, Effluent Monitoring, and Receiving Stream Monitoring	Monthly	By the 15th of the following month	DMR	Electronic reporting as directed by DEQ
Table B5: Copper Biotic Ligand Model and Aluminum Sampling Requirements	Quarterly while discharging to Tickle Cr. starting Q4 of 2026 until 12 samples are collected	By the 15th of the following month	Electronic Data Delivery	Electronic reporting as directed by DEQ
Tables B6 – B9: Metals and Cyanide; Volatile Organic Compounds; Acid Extractable Compounds; and Base Neutral Compounds	Quarterly while discharging to Tickle Cr. starting Q4 of 2026 until 12 samples are collected	By the 15th of the month following each quarter	Electronic Data Delivery	Electronic reporting as directed by DEQ
Tables B10 and B11: Pesticides and PCBs; and Other Parameters with State Water Quality Criteria	Every 3rd quarter while discharging to Tickle Cr. starting Q2 of 2027 until 3 samples are collected.	By the 15th of the month following each quarter	Electronic Data Delivery	Electronic reporting as directed by DEQ
Table B12: WET Test Monitoring (See note c.)	Every 3rd quarter while discharging to Tickle Cr. starting Q2 of 2027 until at least 4 samples are collected.	With the first DMR submittal after receipt of the test results	DMR	Electronic reporting as directed by DEQ
Inflow and infiltration report (see Schedule D)	Annually	February 15	Report	Electronic reporting as directed by DEQ
Mixing Zone Study (see Schedule D)	One time	Submit by 6/15/2030	Report	Electronic reporting as directed by DEQ

Reporting Requirement	Frequency (See note a.)	Due Date	Report Form (See note b.)	Submit To:
Recycled Water Annual Report (see Schedule D) (See note d.)	Annually	January 15	Report	Electronic reporting as directed by DEQ Electronic copy to DEQ Water Reuse Program Coordinator
Wastewater solids annual report (see Schedule D)	Annually	February 19	Report	Electronic reporting as directed by DEQ Electronic copy to DEQ Biosolids Program Coordinator
Biosolids annual report (see Schedule D)	Annually	February 19	Report	Electronic reporting as directed by DEQ DEQ Biosolids Program Coordinator
Hauled Waste Annual Report (see Schedule D) (See note e.)	Annually	January 15	Report	Electronic reporting as directed by DEQ
Industrial User Survey (see Schedule D)	Once per permit cycle	Submit by May 31, 2027	Report	Electronic reporting as directed by DEQ
Outfall Inspection Report (see Schedule D)	Once per permit cycle	Submit by 6/15/2030	Report	Electronic reporting as directed by DEQ
Receiving Water Flow Monitoring Plan (see Schedule D)	Once per permit cycle	Submit by 3/15/2027	Report	Electronic reporting as directed by DEQ

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

Notes:

a. Quarters are defined as: Q1: Jan – Mar, Q2: Apr – June, Q3: Jul – Sept, Q4: Oct – Dec. If quarterly monitoring is specified and no discharge occurs during the quarter, collect the sample in the following quarter.

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

c. At the time of WET sampling, the permittee will collect and analyze effluent samples for the parameters listed in Schedule B.5 of this permit.

d. Only required if the permittee distributes recycled water under a recycled water use plan.

e. Only required if facility has a Hauled Waste Control Plan or otherwise accepts hauled waste.

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. DMR:

(A) 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.

(B) The reporting period is the calendar month.

(C) 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.

ii. Reports and Electronic Data Delivery:

(A) For reports, Electronic Data Delivery (EDD), and other supporting documents required by Table B.1, submit to approved DEQ electronic reporting system.

b. Test Methods

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

c. Detection and Quantitation Limits

i. Detection Level (DL) – The DL is defined as the minimum measured concentration of a substance that can be distinguished from method blank results with 99% confidence. The DL is derived using the procedure in 40 CFR 136 Appendix B and evaluated for reasonableness relative to method blank concentrations to ensure results reported above the DL are not a result of routine background contamination. The DL is also known as the Method Detection Limit (MDL) or Limit of Detection (LOD).

ii. Quantitation Limits (QLs) – The QL is the minimum level, concentration or quantity of a target analyte that can be reported with a specified degree of confidence. It is the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration for the analyte. It is normally equivalent to the concentration of the lowest calibration standard adjusted for sample weights, volumes, preparation and cleanup procedures employed. The QL as reported by a laboratory is also sometimes referred to as the Method Reporting Limit (MRL) or Limit of Quantitation (LOQ).

d. Sufficient Sensitivity of Quantitation Limits

i. The Laboratory QLs (adjusted for any dilutions) for analyses performed to demonstrate compliance with permit limits or as part of effluent characterization, must meet at least one of the requirements below:

(A) The QL is at or below the level of the water quality criterion for the measured parameter.

(B) The QL is above the water quality criterion but the amount of the pollutant in a facility's discharge is high enough that the method detects and quantifies the level of the parameter in the discharge.

(C) The QL has the lowest sensitivity of the analytical methods procedure specified in 40 CFR 136.

(D) The QL is at or below those defined in Oregon DEQ list of quantitation limits posted online at DEQ permitting website.

e. Quality Assurance and Quality Control

i. Quality Assurance Plan – The permittee must develop and implement a written Quality Assurance Plan that details the facility sampling procedures, equipment calibration and maintenance, analytical methods, quality control activities and laboratory data handling and reporting. The QA/QC program must conform to the requirements of 40 CFR 136.7.

ii. If QA/QC requirements are not met for any analysis, the permittee must re-analyze the sample. If the sample cannot be re-analyzed, the permittee must re-sample and analyze at the earliest opportunity. If the permittee is unable to collect a sample that meets QA/QC requirements, then the permittee must include the result in the discharge monitoring report (DMR) along with a notation (data qualifier). In addition, the permittee must explain how the sample does not meet QA/QC requirements. With the exception of BOD_5/$CBOD_5$, the permittee may not use the result that failed the QA/QC requirements in any calculation required by the permit unless authorized in writing by DEQ. For BOD_5/$CBOD_5$, the permittee may not use the result that failed the QA/QC requirement in any calculation except as follows:

(A) When the glucose-glutamic acid, dilution water, and/or seed control check are not met, the values are reported with the "E" (estimate) data qualifier. The estimated values are not used in the calculations.

(B) When the minimum DO depletion or the minimum residual DO is not met, the values are reported with the "<" or ">" data qualifiers as appropriate. The data must be used in the calculations. It is not acceptable to report "non-detect" on the discharge monitoring report. The data qualifiers carry to the summary statistic. For example, when calculating the loading, the data qualifiers are added to the value.

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

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

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

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

iv. The permittee must develop a receiving water sampling and analysis plan that incorporates QA/QC prior to sampling. This plan must be kept at the facility and made available to DEQ upon request.

f. Reporting Sample Results

i. The permittee must report the laboratory DL and QL as defined above for each analyte, with the following exceptions: pH, temperature, BOD_5, $CBOD_5$, TSS, Oil & Grease, hardness, alkalinity, bacteriological analytes, and nitrate-nitrite. For temperature and pH, neither the QL nor the DL need to be reported. For the other parameters listed above, the permittee is only required to report the QL and only when the result is ND.

ii. The permittee must report the same number of significant digits as the permit limit for a given parameter.

iii. Chemical Abstracts Service (CAS) Numbers. CAS numbers (where available) must be reported along with monitoring results.

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

v. (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 <0.001 mg/L, report "<0.017 lb/day" for mass load on the DMR (0.001 mg/L x 2 MGD x conversion factor = 0.017 lb/day).
iii. When concentration data are above the DL, but below the QL: To calculate the mass load from this result, use the DL. Report the mass load as the calculated mass load preceded by "E". For example, if flow is 2 MGD, the DL is 0.001 mg/L, the QL is 0.005 mg/L and the reported sample result is E0.0035 mg/L, report "E0.017 lb/day" for mass load on the DMR (0.001 mg/L x 2 MGD x conversion factor = 0.017 lb/day,).

3. Monitoring and Reporting Requirements

a. The permittee must monitor influent at the Parshall flume upstream of any return flows to the headworks 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.)
Flow (50050)	MGD	Year-round	Daily	Metered	1. Monthly Average 2. Daily Maximum
BOD_5 (00310)	mg/L	November 1 – April 30	1/Week	24-hour composite	Monthly Average
TSS (00530)	mg/L	November 1 – April 30	2/Week	24-hour composite	Monthly Average
pH (00400)	SU	November 1 – April 30	Daily	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 Outfalls 001 and 003 (when discharging) at a location between the UV disinfection unit and the outfalls and report results in accordance with Table B1 and the table below:

Table B3: Effluent Monitoring Requirements for Outfalls 001 and 003

Item or Parameter (See note a.)	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note b.)	Report Statistic (See note c.)
Flow (50050) (Outfall 001)	MGD	Year-round	Daily	Metered	1. Monthly Average 2. Daily Maximum
Flow (50050) (Outfall 003) (See note d.)	MGD	Year-round	Daily	Calculated	1. Monthly Average 2. Daily Maximum
Dilution Factor (80093) (See note e.)	Ratio	November 1 – April 30	Daily	Calculated	Daily Minimum
BOD_5 (00310)	mg/L	November 1 – April 30	1/week	24-hour composite	1. Monthly Average 2. Maximum Weekly Average
BOD_5 (00310)	lb/day	November 1 – April 30	1/week	Calculation	1. Daily Maximum 2. Monthly Average 3. Maximum Weekly Average
BOD_5 percent removal (81010) (See note f.)	%	November 1 – April 30	1/month	Calculation based on monthly average BOD_5 concentration values	Monthly Average
TSS (00530)	mg/L	November 1 – April 30	2/week	24-hour composite	1. Monthly Average 2. Maximum Weekly Average
TSS (00530)	lb/day	November 1 – April 30	2/week	Calculation	1. Daily Maximum 2. Monthly Average 3. Maximum Weekly Average

Item or Parameter (See note a.)	**Units**	**Time Period**	**Minimum Frequency**	**Sample Type/ Required Action** (See note b.)	**Report Statistic** (See note c.)
TSS percent removal (81011) (See note f.)	%	November 1 – April 30	1/month	Calculation based on monthly average TSS concentration values	Monthly Average
pH (00400)	SU	November 1 – April 30	Daily	Grab	1. Daily Maximum 2. Daily Minimum
Temperature (00010)	ºC	November 1 – April 30	Daily	Continuous (See note f.)	1. Daily Maximum 2. Monthly Average 3. Maximum 7-day Rolling Average of Daily Maximum
E. coli (51040)	#/100 mL	November 1 – April 30	3/Week	Grab	1. Daily Maximum 2. Monthly Geometric Mean
Total ammonia (as N) (00610)	mg/L	November 1 – April 30	2/week	24-hour composite	1. Monthly Maximum 2. Daily Maximum
UV intensity	mW/cm2	November 1 – April 30	Daily	Continuous	Maintain records on-site
UV dose	mJ/cm2	November 1 – April 30	Daily	Calculation OR from manufacturer's table	Maintain records on-site
UV transmittance	%	November 1 – April 30	Daily	Continuous	Maintain records on-site
Dissolved Oxygen (00300)	mg/L	Third and fourth years of permit cycle [2028 and 2029]	Quarterly (See note h.)	Grab	Quarterly Minimum

Item or Parameter (See note a.)	**Units**	**Time Period**	**Minimum Frequency**	**Sample Type/ Required Action** (See note b.)	**Report Statistic** (See note c.)
Total Kjeldahl Nitrogen (TKN) (00625)	mg/L	Third and fourth years of permit cycle [2028 and 2029]	Quarterly (See note h.)	24-hour composite	Quarterly Maximum
Nitrate (NO_3) Plus Nitrite (NO_2) Nitrogen (00630)	mg/L	Third and fourth years of permit cycle [2028 and 2029]	Quarterly (See note h.)	24-hour composite	Quarterly Maximum
Oil and Grease (00556)	mg/L	Third and fourth years of permit cycle [2028 and 2029]	Quarterly (See note h.)	Grab	Quarterly Maximum
Total Phosphorus (00665)	mg/L	Third and fourth years of permit cycle [2028 and 2029]	Quarterly (See note h.)	24-hour composite	Quarterly Maximum
Total Dissolved Solids (70295)	mg/L	Third and fourth years of permit cycle [2028 and 2029]	Quarterly (See note h.)	24-hour composite	Quarterly Maximum
Total Phenolic Compounds (70029)	mg/L	Third and fourth years of permit cycle [2028 and 2029]	Quarterly (See notes h and i.)	Grab	Quarterly Maximum

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

Notes:

a. Monitoring for Outfall 003 is only required when discharging to Tickle Creek.

b. In the event of equipment failure or loss, the permittee must notify DEQ and deploy new equipment to minimize interruption of data collection. If new equipment cannot be immediately deployed, the permittee must perform grab measurements. If the failure or loss is for continuous temperature monitoring equipment, the permittee must collect one grab sample daily between 12 PM and 5 PM until continuous monitoring equipment is redeployed.

c. 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.

d. During periods of discharge through Outfall 003, effluent flows through Outfall 003 may be determined using the difference between metered influent flows and metered effluent flows through Outfall 001.

e. Stream Dilution must be calculated using the dilution equation presented in Schedule A.1.

f. 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.

g. When determining the daily maximum temperature, the permittee may report the hourly average maximum temperature if continuous monitoring of temperature is performed at less than hourly intervals.

h. Permittee must collect 4 quarterly samples for this parameter beginning during the third and fourth years of the permit when discharging to Tickle Creek. Quarters are defined as: Q1: Jan – Mar, Q2: Apr – June, Q3: Jul – Sept, Q4: Oct – Dec. If no discharge occurs to Tickle Creek during the quarter, collect the sample in the following quarter when discharge occurs until 4 samples are collected. Sampling is expected to extend into fourth year of permit (2029).

i. Total Phenolic Compounds is identified as “Phenols” in 40 CFR 136.3, Table 1B.

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

Table B4: Receiving Stream Monitoring (Tickle Creek)

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type / Required Action	Report Statistic (See note a.)
Flow, stream (00056) (See note b.)	cfs	November 1 – April 30	Daily	Grab	Monthly Minimum
pH (00400)	SU	November 1 – April 30	1/month	Grab	Monthly Maximum
Temperature (00010)	ºC	November 1 – November 30	Daily	Grab	Monthly Maximum
		December 1 – March 31	1/week	Grab	Monthly Maximum
		April 1 – April 30	Daily	Grab	Monthly Maximum
Alkalinity as $CaCO_3$ (00410)	mg/L	November 1 – April 30	1/month	Grab	Monthly Maximum

Notes:

a. When submitting DMRs electronically, all data used to determine summary statistics must be submitted in a DEQ-approved format as a spreadsheet via electronic reporting unless otherwise directed by DEQ.

b. Tickle Creek flow measurements must be made at the established gauging station that is located approximately one mile upstream of Outfall 001. Any alternative measurement location or method must be approved by DEQ in writing prior to use.

4. Copper Biotic Ligand Model and Aluminum Parameters

The permittee must monitor Tickle Creek and Outfall 001 for copper biotic ligand model and aluminum parameters per the table below. Samples must be collected according to Table B1 and the table below. Effluent and ambient monitoring must be conducted concurrently. The permittee must collect upstream samples such that the effluent does not impact the samples (e.g., upstream for riverine discharges). It is the responsibility of the permittee to ensure safe and practical sampling techniques and procedures are used. DEQ recommends that these procedures be included in a sample and analysis plan that can be reviewed by DEQ when necessary.

Table B5: Copper Biotic Ligand Model and Aluminum Sampling Requirements

Parameter (See note a.)	**CAS** (See note b.)	**Units**	**Sampling Frequency** (See note c.)	**Sampling Location** (See note d.)
Copper, total and dissolved	7440508	µg/L	Quarterly	Upstream and Effluent
Aluminum (See note e.)	7429905	µg/L	Quarterly	Upstream and Effluent
Hardness (as $CaCO_3$)	–	mg/L	Quarterly	Upstream and Effluent
Dissolved organic carbon	–	mg/L	Quarterly	Upstream and Effluent
pH (See note f.)	–	S.U.	Quarterly	Upstream and Effluent
Temperature	–	°C	Quarterly	Upstream and Effluent
Calcium, dissolved (See note g.)	7440702	mg/L	Quarterly	Upstream and Effluent
Magnesium, dissolved (See note g.)	7439954	mg/L	Quarterly	Upstream and Effluent
Sodium, dissolved (See note g.)	7440235	mg/L	Quarterly	Upstream and Effluent
Potassium, dissolved (See note g.)	7440097	mg/L	Quarterly	Upstream and Effluent
Sulfate, dissolved (See note g.)	14808798	mg/L	Quarterly	Upstream and Effluent
Chloride, dissolved (See note g.)	16887006	mg/L	Quarterly	Upstream and Effluent
Alkalinity, dissolved (see note g.)	–	mg/L	Quarterly	Upstream and Effluent

Notes:

a. All effluent samples must be 24-hr composite samples except grab samples must be collected for pH, alkalinity and temperature. All receiving stream samples must be grab samples.

b. Chemical Abstract Service

c. Permittee to sample during quarters when the facility is discharging to Tickle Cr. and for duration specified in Table B1.

d. Samples must be collected upstream (outside the influence of the effluent) and from the effluent on the same day.

e. Effluent samples must be in Total Recoverable fraction. Upstream samples must be in the Bioavailable fraction.

f. Ambient pH measurements in receiving waters where specific conductivity < 200 uS/cm may require additional sampling practices to achieve accurate measurement. Refer to USGS (2021) "Measurement of pH In Techniques and Methods (Vol. 9)" or another 40 CFR 136 approved method for measuring pH in low ionic strength solutions. The permittee must account for low ionic strength when sampling ambient pH.

g. These analytes may be calculated from specific conductance measurements according to equations outlined in OAR 340-041-8033 Endnote N(1)(b). Specific conductance data may be used as a substitute for monitoring and analysis of these parameters only if it is concurrent with other BLM input parameters. If neither the analytes nor concurrent specific conductance is measured, regional defaults will be used in data analysis according to OAR 340-041-8033 Endnote N(2)(a).

5. Effluent Toxics Characterization Monitoring

The permittee must collect and analyze effluent samples for the parameters listed in the tables below. The permittee must collect effluent samples at a at a location between the UV disinfection unit and Outfall 001.

Samples must be 24-hour composites, except as noted in the tables below for total cyanide, free cyanide and volatile organic compounds. Sample results must be reported in µg/L unless otherwise specified and submitted to DEQ using approved electronic format.

Table B6: Metals and Cyanide

Pollutant (See note a.)	**CAS** (See note b.)	**Pollutant** (See note a.)	**CAS** (See note b.)
Antimony, total	7440360	Mercury, total	7439976
Arsenic, total	7440382	Mercury Field Blank (See note d.)	7439976
Arsenic, total inorganic	7440382	Nickel, total and dissolved	7440020
Arsenic, total inorganic dissolved	7440382	Selenium, total and dissolved	7782492
Beryllium, total	7440417	Silver, total and dissolved	7440224
Cadmium, total and dissolved	7440439	Thallium, total	7440280
Chromium, total and dissolved	7440473	Zinc, total and dissolved	7440666
Chromium III, total and dissolved (See note c.)	16065831	Cyanide, free (See notes e & f.)	57125
Chromium VI, dissolved	18540299	Cyanide, total (See note f.)	57125
Lead, total and dissolved	7439921	Iron, total	7439896

Notes:

a. The term "total" used in reference to metals is intended to cover all EPA-accepted standard digestion methods and is considered to be equivalent to the term "total recoverable".

b. Chemical Abstract Service

c. There is no analytical method to test for Chromium III, total Chromium III results are obtained by subtracting dissolved Chromium VI from total Chromium. Dissolved Chromium III results are obtained by subtracting dissolved Chromium VI from dissolved Chromium.

d. A **Field Blank** is defined as blank water that is passed through the entire sampling equipment system onsite and subjected to identical collection, processing, preservation, transportation, storage procedures, and laboratory handling as for environmental samples. The field blank is processed at the sampling location through clean equipment on the same day, and directly before, the environmental samples. The purpose of the blank is to determine the concentration of target analyte(s) present in the environmental sample that could be attributed to field procedures for equipment cleaning and sample handling, and/or effects from laboratory sampling.

e. There are multiple approved methods for testing for free cyanide. For more information, refer to DEQ's analytical memo on the subject of cyanide monitoring at https://www.oregon.gov/deq/FilterDocs/sToxicscyanide.pdf

f. Cyanide (free and total) must be collected as a grab sample according to 40 CFR 122. Twenty-four-hour composite samples are not required for this analyte.

Table B7: Volatile Organic Compounds

Pollutant (See note a.)	CAS	Pollutant (See note a.)	CAS
Acrolein	107028	1,2-trans-dichloroethylene (See note d.)	156605
Acrylonitrile	107131	1,1-dichloroethylene (See note e.)	75354
Benzene	71432	1,2-dichloropropane	78875
Bromoform	75252	1,3-dichloropropylene (See note f.)	542756
Carbon tetrachloride	56235	Ethylbenzene	100414
Chlorobenzene	108907	Methyl Bromide (See note g.)	74839
Chlorodibromomethane (See note b.)	124481	Methyl Chloride (See note h.)	74873
Chloroethane	75003	Methylene chloride	75092
2-Chloroethylvinyl ether	110758	1,1,2,2-tetrachloroethane	79345
Chloroform	67663	Tetrachloroethylene (See note i.)	127184
Dichlorobromomethane (See note c.)	75274	Toluene	108883
1,2-Dichlorobenzene (o)	95501	1,1,1-trichloroethane	71556
1,3-Dichlorobenzene (m)	541731	1,1,2-trichloroethane	79005
1,4-Dichlorobenzene (p)	106467	Trichloroethylene (See note j.)	79016
1,1-dichloroethane	75343	Vinyl chloride	75014
1,2-dichloroethane	107062		

Notes:

a. VOC's must be collected as a grab sample according to 40 CFR 122. Twenty-four-hour composite samples are not required for this analyte.

b. Chlorodibromomethane is identified as Dibromochloromethane in 40 CFR 136.3, Table 1C.

c. Dichlorobromomethane is identified as Bromodichloromethane in 40 CFR 136.3, Table 1C.

d. 1,2-Trans-dichloroethylene is identified as Trans-1,2-dichloroethene in 40 CFR 136.3, Table 1C.

e. 1,1-Dichloroethylene is identified as 1,1-Dichloroethene in 40 CFR 136.3, Table 1C.

f. 1,3-Dichloropropylene consists of both cis-1,3-Dichloropropene and Trans-1,3-dichloropropene. Both must be reported individually.

g. Methyl bromide is identified as Bromomethane in 40 CFR 136.3, Table 1C.

h. Methyl chloride is identified as Chloromethane in 40 CFR 136.3, Table 1C.

i. Tetrachloroethylene is identified as Tetrachloroethene in 40 CFR 136.3, Table 1C.

j. Trichloroethylene is identified as Trichloroethene in 40 CFR 136.3, Table 1C.

Table B8: Acid-Extractable Compounds

Pollutant	CAS	Pollutant	CAS
p-chloro-m-cresol (See note a.)	59507	2-nitrophenol	88755
2-chlorophenol	95578	4-nitrophenol	100027
2,4-dichlorophenol	120832	Pentachlorophenol	87865
2,4-dimethylphenol	105679	Phenol	108952
4,6-dinitro-o-cresol (See note b.)	534521	2,4,5-trichlorophenol (See note c.)	95954
2,4-dinitrophenol	51285	2,4,6-trichlorophenol	88062

Notes:

a. p-chloro-m-cresol is identified as 4-Chloro-3-methylphenol in 40 CFR 136.3, Table 1C.

b. 4,6-dinitro-o-cresol is identified as 2-Methyl-4,6-dinitrophenol in 40 CFR 136.3, Table 1C.

c. To monitor for 2,4,5-trichlorophenol, use EPA Method 625.1.

Table B9: Base-Neutral Compounds

Pollutant	CAS	Pollutant	CAS
Acenaphthene	83329	Dimethyl phthalate	131113
Acenaphthylene	208968	2,4-dinitrotoluene	121142
Anthracene	120127	2,6-dinitrotoluene	606202
Benzidine	92875	1,2-diphenylhydrazine (See note c.)	122667
Benzo(a)anthracene	56553	Fluoranthene	206440
Benzo(a)pyrene	50328	Fluorene	86737
3,4-benzofluoranthene (See note a.)	205992	Hexachlorobenzene	118741
Benzo(ghi)perylene	191242	Hexachlorobutadiene	87683
Benzo(k)fluoranthene	207089	Hexachlorocyclopentadiene	77474
Bis(2-chloroethoxy)methane	111911	Hexachloroethane	67721
Bis(2-chloroethyl)ether	111444	Indeno(1,2,3-cd)pyrene	193395
Bis(2-chloroisopropyl)ether (See note b.)	108601	Isophorone	78591
Bis (2-ethylhexyl)phthalate	117817	Napthalene	91203
4-bromophenyl phenyl ether	101553	Nitrobenzene	98953
Butylbenzyl phthalate	85687	N-nitrosodi-n-propylamine	621647
2-chloronaphthalene	91587	N-nitrosodimethylamine	62759
4-chlorophenyl phenyl ether	7005723	N-nitrosodiphenylamine	86306
Chrysene	218019	Pentachlorobenzene (See note d.)	608935
Di-n-butyl phthalate	84742	Phenanthrene	85018
Di-n-octyl phthalate	117840	Pyrene	129000
Dibenzo(a,h)anthracene	53703	1,2,4-trichlorobenzene	120821
3,3-Dichlorobenzidine	91941	Tetrachlorobenzene,1,2,4,5 (See note d.)	95943
Diethyl phthalate	84662	Equipment Blank (See note e.)	

Pollutant	CAS	Pollutant	CAS

Notes:

a. 3,4-benzofluoranthene is listed as Benzo(b)fluoranthene in 40 CFR 136.

b. Also known as Chloroisopropyl Ether bis 2, and 2,2'-oxybis(2-chloro-propane) Bis(2-chloroisopropyl)ether is listed as 2,2'-oxybis(1-chloropropane) in 40 CFR 136."

c. 1,2-diphenylhydrazine is difficult to analyze given its rapid decomposition rate in water. Azobenzene (a decomposition product of 1,2-diphenylhydrazine), must be analyzed as an estimate of this chemical.

d. To analyze for Pentachlorobenzene and Tetrachlorobenzene 1,2,4,5, use EPA 625.1.

e. Due to known issues of sample contamination with phthalates, an equipment blank must be collected with Base Neutral compound samples and reported as part of the data submission. This is for all pollutants in this table.

Table B10: Pesticides and PCBs

Pollutant	CAS	Pollutant	CAS
Aldrin	309002	Endosulfan beta (See note c.)	33213659
BHC Technical (Hexachlorocylco-hexane) (See note a.)	608731	Endosulfan sulfate	1031078
BHC-alpha (See note a.)	319846	Endrin	72208
BHC-beta (See note a.)	319857	Endrin Aldehyde	7421934
BHC-delta (See note a.)	319868	Guthion (See note d.)	86500
BHC-gamma (Lindane) (See note a.)	58899	Heptachlor	76448
Chlordane	57749	Heptachlor Epoxide	1024573
Chloropyrifos	2921882	Malathion	121755
Demeton	8065483	Methoxychlor	72435
DDD 4,4'	72548	Mirex	2385855
DDE 4,4'	72559	Parathion (See note e.)	56382
DDT 4,4'	50293	Toxaphene	8001352
Dieldrin	60571	Total PCBs (See note f.)	
Endosulfan alpha (See note b.)	959988		

Notes:

a. There is no analytical method for Technical BHC. Instead, the four major isomers (alpha, beta, delta and gamma) must be separately analyzed and then added together to compare to the BHC Technical criteria.

b. Endosulfan alpha is identified as Endosulfan I in 40 CFR 136.3, Table 1D.

c. Endosulfan beta is identified as Endosulfan II in 40 CFR 136.3, Table 1D.

d. Guthion is identified as Azinphos methyl in 40 CFR 136.3, Table 1D.

e. Parathion is listed as Parathion ethyl in 40 CFR 136, Table ID.

f. Total PCBs is the sum of all detected PCB congeners or Aroclors. If analyzing congeners, all 209 congeners must be included in analysis. If analyzing Aroclors then Aroclor 1016, 1221, 1232, 1242, 1248, 1254, and 1260 must be included in analysis. Refer to 40 CFR 136 for current approved methods for PCBs.

Table B11: Other Parameters with State Water Quality Criteria

Pollutant	CAS	Pollutant	CAS
Asbestos (See note a.)	1332214	Dioxin 2,3,7,8-TCDD (See note f.)	1746016
Barium, total (See note b.)	7440393	N-Nitrosodibutylamine	924163
Sulfide-hydrogen sulfide (See note c.)	7783064	N-Nitrosodiethylamine	55185
2,4,5-TP [2-(2,4,5-Trichloro- phenoxy) propanoic acid] (See note d.)	93721	N-Nitrosopyrrolidine	930552
2,4-D (2,4-Dichlorophenoxyacetic acid) (See note e.)	94757		

Notes:

a. Asbestos must be reported in fibers/L
b. Barium, Total is identified as Barium-Total in 40 CFR 136.3, Table 1B.
c. Report Sulfide-Hydrogen Sulfide as Dissolved Sulfide as S.
d. This chemical is listed as Chlorophenoxy Herbicide (2,4,5-TP) in Table 40.
e. This chemical is listed as Chlorophenoxy Herbicide (2,4-D) in Table 40
f. Dioxin 2,3,7,8-TCDD is identified as 2,3,7,8-Tetrachloro-dibenzo-p-dioxin in 40 CFR 136.3,Table 1C.

6. Additional Receiving Stream and Effluent Characterization Monitoring

If additional ambient or effluent monitoring is needed, DEQ will notify the permittee through a request for supplemental information/data.

7. Whole Effluent Toxicity (WET) Requirements

The permittee must monitor final effluent for whole effluent toxicity as described in the table below using the testing protocols specified in Schedule D, Whole Effluent Toxicity Testing for Freshwater for Outfall 001 must be collected at the location specified below.

Table B12: WET Test Monitoring

Parameter	Sample Type/Location	Minimum Frequency	Report
Acute toxicity	For acute toxicity: 24-hr composite samples, taken at a location between the UV disinfection unit and the outfall.	See Table B1	Report must include test results and backup information such as bench sheets sufficient to demonstrate compliance with permit requirements. Report must include a statement certifying that the results do or do not show toxicity.
Chronic toxicity	For chronic toxicity: 24-hr composite, taken at a location between the UV disinfection unit and the outfall.		

8. 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 delivered for beneficial reuse at a location identified in the Recycled Water Use Plan.

Table B13: Recycled Water Monitoring

Item or Parameter	Units	Time Period (See note a)	Minimum Frequency	Sample Type/ Required Action	Report (See note b.)
Total flow (50050)	MGD	May 1- Oct. 31	Daily	Measure	Monthly Total
pH (00400)	SU	May 1 – Oct 31	2/Week	Grab	1. Monthly Minimum 2. Monthly Maximum
UV dosage (61938) (See note c.)	mJ/cm^2	May 1 – Oct. 31	Daily	Calculate based on UVI grab and average daily flow	Monthly Minimum
Chlorine, Total Residual (50060) (See note d.)	mg/L	May 1 – Oct. 31	Daily	Grab	Monthly Summary
Turbidity (00070)	NTU	May 1 – Oct. 31	Hourly (Class A)	Measure	1. Daily Average 2. Daily Maximum
Turbidity, time above limit (61736)	%	May 1 – Oct. 31	Daily (Class A)	Calculate	Daily Maximum
Total coliform (74056)	#/100 mL	May 1 – Oct. 31	• Daily (Class A) • 3/Week (Class B) • Weekly (Class C)	Grab (See note e.)	1. 7-Day Median 2. Maximum Single Sample
E. coli (51040)	#/100 mL	May 1 – Oct. 31	Weekly (Class D)	Grab	1. Monthly Geometric Mean 2. Maximum Single Sample
Total Kjeldahl, Nitrogen (00625)	mg/L	May 1 – Oct. 31	Quarterly	Grab	Value
Nitrite + Nitrate (NO_2+NO_3) (00630)	mg/L	May 1 – Oct. 31	Quarterly	Grab	Value
Total Ammonia [as N] (00610)	mg/L	May 1 – Oct. 31	Quarterly	Grab	Value

Item or Parameter	Units	Time Period (See note a)	Minimum Frequency	Sample Type/ Required Action	Report (See note b.)
Total Phosphorus (00665)	mg/L	May 1 – Oct. 31	Quarterly	Grab	Value
Nitrogen Loading Rate	lb/acre-year	May 1 – Oct. 31	Annually	Calculate	Value for each field

Notes:

a. Monitoring must be conducted whenever the facility is producing recycled water. The production of recycled water typically occurs from May 1 through October 31. Quarters are defined as: Q1: Jan – Mar, Q2: Apr – June, Q3: Jul – Sept, Q4: Oct – Dec.

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

c. Monitor and report when using ultraviolet light (UV) for recycled water disinfection

d. Monitor and report when using chlorine for recycled water disinfection.

e. 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.

9. Biosolids Monitoring Requirements

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

Table B14: Biosolids Monitoring

Item or Parameter	Minimum Frequency	Sample Type
Nutrient and conventional parameters (% dry weight unless otherwise specified): Total Kjeldahl Nitrogen (TKN) Nitrate-Nitrogen (NO_3-N) Total Ammonia-Nitrogen (NH_3-N) Total Phosphorus (P) Potassium (K) pH (S.U.) Total Solids Volatile Solids	As described in DEQ-approved Biosolids Management Plan, but not less than the frequency in Table B15.	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 B15	As described in DEQ-approved Biosolids Management Plan

Item or Parameter	Minimum Frequency	Sample Type
Pathogen reduction	As described in DEQ-approved Biosolids Management Plan, but not less than the frequency in Table B15.	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 B15.	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 B15: 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 Schedule B1, permittee must submit a Level 2 Mixing Zone Study for Outfalls 001 and 003. Level 2 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

The permittee must update 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 implementing changes to the recycled water program. The permittee must keep the plan updated. This includes any proposed changes in use or class of recycled water produced. 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 – 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 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. Hauled Waste Control Plan

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

10. Hauled Waste Annual Report

If the permittee has a Hauled Waste Control Plan, or otherwise accepts hauled waste, the permittee must submit an annual report of hauled waste received by the POTW. The permittee must use DEQ-approved form. This report, if required, must be submitted as described in Table B1.

11. Whole Effluent Toxicity Testing for Freshwater

a. The permittee must conduct whole effluent toxicity (WET) tests as specified here and in Schedule B of this permit.

b. Acute Toxicity Testing - Organisms and Protocols

i. The permittee must conduct 48-hour static renewal tests with *Ceriodaphnia dubia* (water flea) and 96-hour static renewal tests with *Pimephales promelas* (fathead minnow).

ii. All test methods and procedures must be in accordance with *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, EPA-821-R-02-012, October 2002*, or the most recent version of this publication if such edition is available. If the permittee wants to deviate from the bioassay

procedures outlined in this method, the permittee must submit a written request to DEQ for review and approval prior to use.

iii. Treatments to the final effluent samples (for example, dechlorination, ammonia removal), except those included as part of the methodology, may not be performed by the laboratory unless approved by DEQ in writing prior to analysis.

iv. WET acute testing must be conducted using a dilution series based upon the effluent percentage at the ZID (EPZID) in the following manner: 100% effluent; 79%; 59%; 30%; 15% and a control (0% effluent).

v. An acute WET test shows toxicity if there is a statistically significant difference in survival between the control and 100% effluent reported as the NOEC < 59% effluent.

c. Chronic Toxicity Testing - Organisms and Protocols

i. The permittee must conduct tests with *Ceriodaphnia dubia* (water flea) for reproduction and survival test endpoint, *Pimephales promelas* (fathead minnow) for growth and survival test endpoint, and *Raphidocelis subcapitata* (green alga formerly known as *Selanastrum capricornutum*) for growth test endpoint.

ii. All test methods and procedures must be in accordance with *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA-821-R-02-013, October 2002*, or the most recent version of this publication if such edition is available. If the permittee wants to deviate from the bioassay procedures outlined in the applicable method, the permittee must submit a written request to DEQ for review and approval prior to use.

iii. Treatments to the final effluent samples (for example, dechlorination, ammonia removal), except those included as part of the methodology, may not be performed by the laboratory unless approved by DEQ in writing prior to analysis.

iv. WET chronic testing must be conducted using a dilution series based upon the effluent percentage at the RMZ (EPRMZ) in the following manner: 100% effluent; 68.5%; 37%; 19%; 15% and a control (0% effluent).

v. A chronic WET test shows toxicity if the IC25 (25% inhibition concentration) occurs at dilutions equal to or less than the dilution that is known to occur at the edge of the mixing zone, that is, IC25 ≤ 37%.

d. Dual End-Point Tests

i. WET tests may be dual end-point tests in which both acute and chronic end-points can be determined from the results of a single chronic test. The acute end-point will be based on 48-hours for the *Ceriodaphnia dubia* (water flea) and 96-hours for the *Pimephales promelas* (fathead minnow).

ii. All test methods and procedures must be in accordance with *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA-821-R-02-013, October 2002*, or the most recent version of this publication if such edition is available. If the permittee wants to deviate from the bioassay procedures outlined in this method, the permittee must submit a written request to DEQ for review and approval prior to use.

iii. Tests run as dual end-point tests must be conducted the following dilution series: 100% effluent; 79%; 59%; 37%; 15% and a control (0% effluent).

iv. Toxicity determinations for dual end-point tests must correspond to the acute and chronic tests described in conditions 11.b.v and 11.c.v above.

e. Evaluation of Causes and Exceedances

i. If any test exhibits toxicity as described in conditions 11.b.v. and 11.c.v. above, the permittee must conduct another toxicity test using the same species and DEQ-approved methodology within two weeks unless an extension is granted by DEQ in writing.

ii. If two consecutive WET test results indicate acute or chronic toxicity as described in conditions 11.b.v. and 11.c.v. above, the permittee must immediately notify DEQ of the results. DEQ will work with the permittee to determine the appropriate course of action to evaluate and address the toxicity.

f. Quality Assurance and Reporting

i. Quality assurance criteria, statistical analyses, and data reporting for the WET tests must be in accordance with the EPA documents stated in this condition.

ii. For each test, the permittee must provide a bioassay laboratory report according to the EPA method documents referenced in this Schedule. The report must include all QA/QC documentation, statistical analysis for each test performed, standard reference toxicant test (SRT) conducted on each species required for the toxicity tests and completed Chain of Custody forms for the samples including time of sample collection and receipt. The permittee must submit reports to DEQ within 60 days of test completion.

iii. The report must include all endpoints measured in the test: NOEC (No Observed Effects Concentration), LOEC (Lowest Observed Effects Concentration), and IC_{25} (chronic effect 25% inhibition concentration).

iv. The permittee must make available to DEQ upon request the written standard operating procedures they, or the laboratory performing the WET tests, use for all toxicity tests required by DEQ.

g. Reopener

DEQ may reopen and modify this permit to include new limits, monitoring requirements, and/or conditions as determined by DEQ to be appropriate, and in accordance with procedures outlined in OAR Chapter 340, Division 45 if:

i. WET testing data indicate acute and/or chronic toxicity.

ii. The facility undergoes any process changes.

iii. Discharge monitoring data indicate a change in the reasonable potential to cause or contribute to an exceedance of a water quality standard.

h. Circumstances not addressed in this section, or that require deviation from the requirements of this section, must be approved in writing by DEQ before changes are implemented.

12. Operator Certification

a. Definitions

i. “Supervise” means to have full and active responsibility for the daily on site technical operation of a wastewater treatment system or wastewater collection system.

ii. “Supervisor” or “designated operator”, means the operator delegated authority by the permittee for establishing and executing the specific practice and procedures for operating the wastewater treatment system or wastewater collection system in accordance with the policies of the owner of the system and any permit requirements.

iii. "Shift Supervisor" means the operator delegated authority by the permittee for executing the specific practice and procedures for operating the wastewater treatment system or wastewater collection system when the system is operated on more than one daily shift.

iv. "System" includes both the collection system and the treatment systems.

b. The permittee must comply with OAR Chapter 340, Division 49, "Regulations Pertaining to Certification of Wastewater System Operator Personnel" and designate a supervisor whose certification corresponds with the classification of the collection and/or treatment system as specified in DEQ Supervisory Wastewater Operator Status Report. DEQ may revise the permittee's classification in writing at any time to reflect changes in the collection or treatment system. This reclassification is not considered a permit modification and may be made after the permit expiration date provided the permit has been administratively extended by DEQ. If a facility is re-classified, a certified letter will be mailed to the system owner from DEQ Operator Certification Program. Current system classifications are publicized on DEQ Supervisory Wastewater Operator Status Report found on DEQ Wastewater Operator Certification Homepage.

c. The permittee must have its system supervised full-time by one or more operators who hold a valid certificate for the type of wastewater treatment or wastewater collection system, and at a grade equal to or greater than the wastewater system's classification.

d. The permittee's wastewater system may be without the designated supervisor for up to 30 consecutive days if another person supervises the system, who is certified at no more than one grade lower than the classification of the wastewater system. The permittee must delegate authority to this operator to supervise the operation of the system.

e. If the wastewater system has more than one daily shift, the permittee must have another properly certified operator available to supervise operation of the system. Each shift supervisor must be certified at no more than one grade lower than the system classification.

f. The permittee is not required to have a supervisor on site at all times; however, the supervisor must be available to the permittee and operator at all times.

g. The permittee must notify DEQ in writing of the name of the system supervisor by completing and submitting the Supervisory Wastewater System Operator Designation Form. The most recent version of this form may be found on DEQ Wastewater Operator Certification homepage *NOTE: This form is different from the Delegated Authority form. The permittee may replace or re-designate the system supervisor with another properly certified operator at any time and must notify DEQ in writing within 30 days of replacement or re-designation of the operator in charge. As of this writing, the notice of replacement or re-designation must be sent to Water Quality Division, Operator Certification Program, 700 NE Multnomah St, Suite 600, Portland, OR 97232-4100. This address may be updated in writing by DEQ during the term of this permit.

h. When compliance with item (d) of this section is not possible or practicable because the system supervisor is not available or the position is vacated unexpectedly, and another certified operator is not qualified to assume supervisory responsibility, the Director may grant a time extension for compliance with the requirements in response to a written request from the system owner. The Director will not grant an extension longer than 120 days unless the system owner documents the existence of extraordinary circumstances.

13. 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.

14. Outfall Inspection

The permittee must inspect Outfalls 001 and 003, including the submerged portions of the outfall lines and diffusers (if existing), to document their integrity and to determine whether they are functioning as designed. The inspection must determine whether all ports are intact, clear and fully functional. The inspection must verify the latitude and longitude of the outfall end pipes and/or diffuser ports. The permittee must submit a written report to DEQ regarding the results of the outfall inspection by the date in Table B1. The report must include a description of the outfalls as originally constructed, the condition of the current outfalls and identify any repairs needed to return the outfalls to satisfactory condition.

15. Receiving Water Flow Monitoring Plan

By no later than the date in Table B1, the permittee must submit a plan that describes the methods and standard operating procedures used to measure receiving stream flow. The plan must:

a. Describe the type of stream gauge or measurement used, and who is collecting the measurements;

b. Describe where the stream gauge is located relative to the outfall, and the channel type at the gauge or measurement location;

c. Describe how the flow is being calculated based on measurement type, the standard operating procedures associated with taking measurements, the expected precision and accuracy of those measurements; and

d. Describe if the device used to determine depth, velocity, and/or flow is able to be calibrated, how often is it calibrated and how.

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 Sandy WWTP

Final: May 11, 2026

Permittee	City of Sandy Sandy WWTP 33400 SE Jarl Rd Boring, OR 97009
Existing Permit Information	Site Record ID Number: 7368 Permit Number: 102492 EPA Reference Number: OR0026573 Category: Domestic Class: Minor Expiration Date: 11/30/2013
Permittee Contact	AJ Thorne Public Works Director 503-489-2162 39250 Pioneer Blvd. Sandy, Oregon 97055
Receiving Water Information	Receiving stream/NHD name: Tickle Creek NHD Reach Code & % along reach: 17090011000295 80.4% USGS 12-digit HUC: 170900110604 OWRD Administrative Basin: Willamette ODEQ LLID & River Mile: 1223744453954 RM 2.1 Assessment Unit ID: OR_WS_170900110604_02_104546
Proposed Action	Permit Renewal Application Number: 77022 Date Application Received: 7/31/2013
Permit Writer	Mark W. Hynson 503-229-5295 Date Prepared: 5/6/2026

NPDES Permit Fact Sheet
City of Sandy

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NPDES Permit Renewal Fact Sheet
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1. Introduction

The Department of Environmental Quality (DEQ) proposes to renew the National Pollutant Discharge Elimination System (NPDES) wastewater permit for the City of Sandy Wastewater Treatment Plant (WWTP) located at 33400 SE Jarl Road, Sandy, Oregon (see Figure 2-1). This permit allows and regulates the discharge of treated effluent to Tickle Creek, a tributary of the Clackamas River within the Willamette Basin. In addition, the permit allows the City of Sandy to discharge recycled water to a local nursery.

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

The permit was last renewed in 2010 and expired on November 30, 2013. The proposed permit contains several changes from the 2010 permit as a result of the facility being considered a major facility (effluent discharges greater than 1 million gallons per day [MGD]) and updates to DEQ's permit template. A summary of the major changes is presented below:

- Schedule A: (Waste Discharge Limits)
  - More stringent effluent limit for pH.
  - Addition of a requirement to develop and implement a Mercury Minimization Plan.
- Schedule B: (Minimum Monitoring and Reporting Requirements)
  - Updated monitoring frequency to reflect that the facility is now considered a major facility.
  - Expanded effluent characterization monitoring for toxics, mercury, copper and aluminum.

- Schedule D: (Special Conditions)

  Addition of requirements for:

  - Inflow and Infiltration Reporting
  - Mixing Zone Study for Outfalls 001 and 003
  - Emergency Response and Public Notification Plan
  - Wastewater Solids Annual Report
  - Industrial User Survey
  - Outfall Inspection
  - Receiving Water Flow Monitoring Plan

- Schedule F: (General Conditions)
  - Updated to latest version of the NPDES General Conditions.

2. Facility Description

2.1 Wastewater Facility

The City of Sandy operates a wastewater treatment facility located in Boring, Oregon. The treatment facility is located approximately 2.5 miles west of Sandy at the end of Jarl Road (see Figure 2-1). The facility treats wastewater (sewage) originating primarily from domestic and commercial sources. The facility does not accept hauled waste. The treated wastewater is discharged to Tickle Creek during the winter season (November 1 through April 30), and the facility produces recycled water that is used as an irrigation water supply for a local nursery during the rest of the year (May 1 – October 31).

The wastewater treatment facility was originally constructed in 1965 and upgraded in 1998. The facility improvements in 1998 included new clarifiers which improved secondary treatment. Additional improvements were recently completed to the facility and sanitary collection system in 2024. The current design flow is now over one MGD.

The major treatment process provided by the facility is Activated Sludge. Wastewater from the sanitary collection system is transported to the facility's headworks for screening and grit removal. A vortex grit removal system is used. Wastewater next flows into two aeration basins with a total volume of 741,000 gallons. Each basin consists of three "swing" zones (37,700 gallons each) that can switch aeration on or off, followed by two aerated basins (128,700 gallons each). The aeration basins create a settleable floc for separation and removal in two, downstream secondary clarifiers. The facility also includes an equalization storage basin that can be used to temporarily store influent flow or aeration basin effluent.

Clarification is accomplished by two circular clarifiers, each equipped with one Return Activated Sludge (RAS) and one Waste Activated Sludge (WAS) pump. The clarifier effluent is filtered via three filters before disinfection by ultraviolet (UV) radiation for surface water discharges and chlorination and/or UV for recycled water use. In the winter, treated effluent from the facility is discharged to Tickle Creek at River Mile (RM) 2.1. Tickle Creek is 9.6 miles long. Tickle Creek

flows to Deep Creek which in turn discharges to the Clackamas River, in the Willamette River Basin.

Solids removed as part of the treatment process are treated in a circular aerobic digestion tank and stored in a covered dewatered solids storage facility. Solids are periodically removed from the site as needed and are disposed of in a landfill. The facility does not land apply biosolids. A flow schematic of the facility is presented in Appendix A.

The plant design is based on the design average dry weather flow (DADWF). This is the estimated maximum daily average dry weather flow (May 1 to October 31) at which the design engineer expects the treatment facility to consistently meet all effluent limits. The DADWF flow for this facility is 1.1 MGD. The facility's average wet weather design flow is 1.5 MGD.

The facility discharges treated wastewater to Tickle Creek at Outfall 001 (RM 2.1, see Figure 2-1) during the winter season (November 1 through April 30). During the summer season (May 1 through October 31), no discharge to surface waters is allowed - all effluent receives Class B recycled water treatment and is pumped to the Iseli Nursery holding pond (Outfall 002), from where it is irrigated on nursery stock. Outfall 002 can handle flows up to 2.5 MGD. If peak instantaneous wet weather flow exceeds 4.0 MGD, the facility discharges flows in excess over 4.0 MGD at Emergency Outfall 003 (RM 3.4 on Tickle Creek, just east of the treatment facility). Outfall 003 can handle flows up to 7.0 MGD. The renewal permit does not propose any outfall changes. See Table 2-1 for latitude and longitude coordinates of all three outfalls.

Figure 2-1: Facility and Outfall Locations

Table 2-1: List of Outfalls

Outfall Number	Type of Waste	Lat/Long
001	Treated Wastewater to Tickle Cr.	45.405259, -122.340190 (WGS 84)
002	Treated Wastewater – Recycled Water	Iseli Nursery Pond IV
003	Treated Wastewater to Tickle Cr.	45.406438, -122.316351 (WGS 84)

2.2 Stormwater

A 1200-Z Industrial Stormwater general NPDES permit is required for wastewater treatment facilities with a design flow of 1 MGD or more when stormwater is discharged from the site. While the Sandy facility has a design flow greater than 1 MGD, all of the stormwater generated from the site is routed to the treatment system and discharged under the permit addressed by this fact sheet. As such, a separate stormwater permit is not required.

2.3 Industrial Pretreatment

The City of Sandy conducted an Industrial User Survey prior to the issuance of the previous permit and determined that a DEQ-approved industrial pretreatment program was not needed at that time. No Industrial User Survey has been conducted since at least 2010, the date of the previous permit's fact sheet.

No categorical industrial users were identified by the city in the most recent permit renewal application. The proposed permit requires the permittee to conduct and submit to DEQ an updated Industrial User Survey (Survey) within one year of permit issuance. DEQ will review the Survey results and, if DEQ determines that a pretreatment program is required, the permit may be reopened and modified to require development of a pretreatment program.

2.4 Wastewater Classification

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

3. Schedule A: Effluent Limit Development

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

Minimum Dilution Requirements

As noted in the following section, the current permit includes a restriction on discharging to Tickle Creek when the stream dilution is less than 10. This condition was included to address minimum treatment plant design criteria included in the Oregon Administrative Rules.

3.1 Existing Effluent Limits

The table below shows the limits contained in the existing permit for Outfalls 001 and 003.

Table 3-1: Outfalls 001 & 003 Existing Effluent Limits

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
Effluent Flow (May 1 to Oct 31)	MGD	No discharge to waters of the state		
Effluent Flow (November 1 to April 30)	MGD	No discharge to waters of the state when stream dilution is less than 10 (See note a.)		
BOD_5 (November 1 to April 30)	mg/L	10	15	-
	lb/day	125	187	250
	% removal	85	-	-
TSS (November 1 – April 30)	mg/L	10	15	-
	lb/day	125	187	250
	% removal	85	-	-
pH (November 1 to April 30)	SU	Within the range of 6.0 and a daily maximum of 9.0		
E. coli (November 1 to April 30) (See note b.)	#/100 mL	Must not exceed a monthly geometric mean of 126, no single sample may exceed 406		
Ammonia (NH3-N) (November 1 to April 30)	mg/L	3.7	-	10.9

Notes:

a. Dilution = (Qs + Qe)/Qe, where Qs = Tickle Creek flow and Qe = Effluent flow

b. If a single sample exceeds 406 organisms per 100 mL, then five consecutive re-samples may be taken at four-hour intervals beginning within 28 hours after the original sample was taken. If the log mean of the five re-samples is less than or equal to 126 organisms per 100 mL, a violation shall not be triggered.

The existing permit also includes the following limits for these outfalls:

- Chlorine and chlorine compounds must not be used as a disinfecting agent of the treated effluent, and no chlorine residual is allowed in the effluent discharged to the stream.
- No discharge to waters of the state is permitted from Outfall 003 when the treatment facility's peak, instantaneous wet weather flow is less than 4.0 MGD.

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 five-day carbonaceous biochemical 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 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 Willamette basin.

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

Parameter	Federal Secondary Treatment Standards		Willamette Basin-Specific Design Criteria (OAR 340-041-0345)
	30-Day Average	7-Day Average	Monthly Average
BOD_5 (mg/L)	30	45	10 mg/L during periods of low stream flows (approx. May 1 – Oct. 31) and minimum of secondary treatment or equivalent control during periods of high stream flows (approx. Nov. 1 – Apr. 30)
TSS (mg/L)	30	45	
pH (S.U.)	6.0 – 9.0 (instantaneous)		Not applicable
BOD_5 and TSS % Removal	85%	Not applicable	Not applicable

3.2.1 Mass Based Limits

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). 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 BOD_5 and TSS monthly average concentrations of 10 mg/L during the wet weather season. DEQ uses the maximum monthly wet weather design flow to calculate the mass load limits as shown below for the wet weather seasons. Since the facility does not discharge during the dry season (May 1 – October 31), no mass limits were calculated for the dry season. The wet weather mass limits were calculated using the following equations:

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

Weekly Average Mass Load = Design Flow* x Weekly Concentration Limit x Unit Conversion factor

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

* Design flow is the design maximum wet weather flow (DMMWWF)

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

Table 3-3: Design Flows and Concentrations Limits

Season	Design Flow (mgd)	Monthly TSS Concentration Limit (mg/L)	Monthly BOD_5 Concentration Limit (mg/L)
Wet Weather	1.5	10	10
Design flow comments: DMWWF			

The facility's wet weather mass limits for BOD_5 and TSS are based upon an average wet weather design flow of 1.5 MGD and monthly and weekly concentration limits. The calculations for the mass limits are shown below:

Monthly Average: 1.5 [design flow] mgd x 10 [monthly concentration limit] mg/L x 8.34 = 125.1 (130 lbs/day - Two significant figures)

Weekly Average: 1.5 [design flow] mgd x 15 [weekly concentration limit] mg/L x 8.34 = 187.6 lbs/day (190 lbs/day - Two significant figures)

Daily Maximum: 130 lbs/day monthly average x 2 = 260 lbs/day (Two significant figures)

The mass load limits determined above are higher than the current limits (see Section 3.1, above). The existing limits are retained in the proposed permit to address both antidegradation/anti-backsliding regulations and Oregon's "Three Basin Rule" (OAR 340-041-0350), which prohibits increases in mass load limitations.

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

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

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
BOD_5 (November 1 – May 30)	mg/L	10	15	-
	lbs/day	125	187	250
	% removal	85	85	-

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
TSS (November 1 – May 30)	mg/L	10	15	-
	lbs/day	125	187	250
	% removal	85	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 Tickle Creek (the receiving water body). These uses are listed in OAR-340-041-0340 for the Willamette 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
- Hydro power

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

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

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

Water Quality Limited Parameters (Category 5)	
AU ID:	OR_WS_170900110604_02_104546
AU Name:	Tickle Creek
AU Status:	Impaired
Year Listed:	2010
Year Last Assessed:	2022
Category 5 Parameters:	Alkalinity- Aquatic Life Toxics, BioCriteria
Category 4A Parameters	
E. Coli Bacteria	

While temperature, bacteria and mercury are not listed as Category 4A in the current assessment, TMDLs have been developed for the subbasin and wasteload allocations for these parameters have been assigned to the facility. This is discussed in the next section.

The receiving stream is listed as impaired for alkalinity and biocriteria. Alkalinity is assessed in Section 3.3.9.5, below. The biocriteria parameter assesses the integrity of aquatic biological communities (OAR 340-041-0011). An impairment for biocriteria does not by itself indicate if changes to the biological community are related to pollutants, nor does it identify which pollutant should be addressed by point source controls. Until there is specific evidence that a pollutant discharged by the facility is causing the biocriteria impairment, it is assumed that the limits contained within the NPDES permit are protective of the biological community.

3.3.3 TMDL Wasteload Allocations

DEQ originally issued a bacteria and temperature TMDL for the Clackamas subbasin (under the Willamette Basin TMDL) in 2006. The temperature TMDL was replaced by the Willamette Subbasins Temperature TMDL in 2025. The 2006 bacteria TMDL and associated wasteload allocations (WLAs) are still valid. EPA also issued a TMDL for mercury (human health criterion) in 2019 for the Willamette Basin. WLAs from these TMDLs that are applicable to the permittee are listed in the following table.

Table 3-6: Applicable WLAs

Parameter	WLA	Time Period
Temperature	0 kcals/day	5/1 – 10/31
E. coli Bacteria	Geometric Mean 126/Instantaneous 406 (both as MPN/100 ml)	Year-round
Mercury (Human Health)	Mercury Minimization Plan Requirement	Year-round

These wasteload allocations (WLAs) are addressed in the sections below.

3.3.4 Pollutants of Concern

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

- Effluent monitoring data.
- Knowledge about the permittee's processes.
- Previous effluent limits (see Section 3.1).
- Applicable TMDLs or 303(d) list (see Section 3.3.2).
- Applicable TBELs (see Section 3.2).

The pollutants of concern identified by DEQ for this facility are listed in the following table:

Table 3-7: Domestic Pollutants of Concern

Design Flow Rate	Pollutants
≥ 1.0 mgd	Alkalinity, Bacteria, pH, Temperature, Total Ammonia Nitrogen, Metals, Volatile Organic Compounds, Acid Extractable Compounds, Base Neutral Compounds, and Any Other Pollutants Which Have State Water Quality Criteria

Chlorine is not used by the facility for disinfection of wastewater discharged to surface waters, so it is not considered a pollutant of concern. As noted in Section 4.4, below, a prohibition on chlorine use at the facility is included in the proposed permit.

The following sections outline the analyses conducted for the pollutants of concern to determine whether water quality-based effluent limits are necessary for the facility's effluent to be protective of applicable water quality standards.

3.3.5 Regulatory Mixing Zone

The proposed permit contains a mixing zone as allowed per OAR 340-041-0053. The regulatory mixing zone from the existing permit for Outfall 001 and 003 is described as:

> *The regulatory mixing zone (RMZ) is that portion of Tickle Creek extending 50 feet downstream and 5 feet upstream from the outfall. The zone of initial dilution (ZID) extends in the stream 5 feet from the discharge point.*

Since there is no tidal influence in this area, and CORMIX modeling indicates that the plume does not extend back upstream, the upstream portion of the mixing zone will be removed. A 2011 fish survey submitted by the permittee indicated that there was good spawning habitat only 20 feet downstream from Outfall 001. CORMIX modeling indicates that the effluent would directly pass over the spawning habitat. OAR 340-041-0053 (2)(c)(C) requires that mixing zones be sized to minimize adverse effects on the indigenous biological community. Therefore, the mixing zone will be re-sized to 20 feet for Outfall 001. Zones of Initial Dilutions (ZIDs) are sized to be 10% of the RMZ, and therefore the ZID for Outfall 001 will be re-sized to 2 feet for

Outfall 001. The mixing zone dimensions will remain the same for Outfall 003. The proposed permit contains updated regulatory mixing zone descriptions, which are described as follows to account for the fact that the outfall itself is not in the stream:

> *The Regulatory Mixing Zone (RMZ) for Outfall 001 is that portion of Tickle Creek extending 20 feet downstream from the point where the discharge meets Tickle Creek. The Zone of Immediate Dilution (ZID) is that portion of Tickle Creek extending 2 feet from where the discharge meets Tickle Creek.*
>
> *The Regulatory Mixing Zone (RMZ) for Outfall 003 is that portion of Tickle Creek extending 50 feet downstream from the point where the discharge meets Tickle Creek. The Zone of Immediate Dilution (ZID) is that portion of Tickle Creek extending 5 feet from where the discharge meets Tickle Creek.*

Outfall 001 is an 18-inch single pipe with no diffuser located at 45.405259, -122.340190 (WGS 84). Outfall 003 is a single pipe with no diffuser located at 45.406438, -122.316351 (WGS 84). Both outfalls are positioned above and on the edge of the stream with the effluent cascading down riprap into Tickle Creek. Outfall 001 is the primary discharge outfall, while Outfall 003 is an emergency discharge outfall that can be used during periods of high flows. Since the effluent discharged from Outfall 003 undergoes the same treatment as Outfall 001 and is discharged at the same time as effluent from Outfall 001, there is no need to develop separate limits for Outfall 003. Therefore, the same dilutions developed for Outfall 001 will be applied to Outfall 003.

The permit currently contains a prohibition on effluent discharge if the dilution factor at 100% mix is less than 10. The dilution factors at the edge of the Regulatory Mixing Zone and Zone of Initial Dilution are shown in Table 3-8 for the scenario where the effluent discharge prohibition applies. These dilutions are based on a 2003 mixing zone study reviewed by DEQ. The mixing zone memo documenting this review and updated analysis is in a March 12, 2025 Mixing Zone Memo which is part of the administrative record.

Table 3-8: Dilution Values When Dilution at 100% Mix is ≥ 10

Dilution Summary – Outfall 001 and 003 November 1 to April 30 (Wet Weather)						
Water Quality Standard	**Stream Flow (cfs)**		**Effluent Flow (mgd)**		**Dilution Factor**	**Location**
	Statistic	**Flow**	**Statistic**	**Flow**		
Aquatic Life, Acute	1Q10	5.48	☐ ADWDF x PF ☐ Max Daily Avg ☒ Other	0.39	1.7	ZID (2 ft)
Aquatic Life, Chronic	7Q10	5.48	☐ ADWDF ☐ Max Monthly Avg ☒ Other	0.39	2.7	RMZ (20 ft)
Human Health, Non-Carcinogen	30Q5	5.48	☐ ADWDF ☐ Max Monthly Avg ☒ Other	0.39	2.7	RMZ (20 ft)
Human Health, Carcinogen	Harmonic Mean	34.4	☐ Annual Avg Design ☐ Annual Avg ☒ Other	1.4	4.4	RMZ (20 ft)
ADWDF = Average dry weather design flow *PF = Peaking factor (1.5)*						
Comments: Ambient flow values are based on monitoring conducted by the permittee. The 1Q10, 7Q10, and 30Q5 are based on the lowest measured flow value during the time-period in which the permittee is allowed to discharge. Effluent flows are based on the highest amount the permittee would be able to discharge and still meet a 100% mix dilution of 10. 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 criteria for this basin are 6.5 – 8.5 S.U. per OAR 340-041-0345. The current limit in the permit for discharges to surface waters is 6.0 – 9.0 S.U. For the pH analysis, DEQ considered the discharge scenario where discharge is restricted to conditions resulting in a dilution at full mix of 10 or greater (current permitted scenario). This discharge scenario applies to discharges during the discharge season of November 1 – April 30.

DEQ determined there is reasonable potential for the discharge to exceed the pH criteria at the edge of the mixing zones for Outfalls 001 and 003. The proposed limits, where the discharge is restricted to conditions resulting in a dilution at full mix of 10 or greater (current permitted scenario), is 6.4 - 9.0 S.U. The 6.4 value is a water quality-based effluent limit (WQBEL) and the 9.0 value is a technology-based effluent limit (TBEL). The following tables provide summaries of the data used for the analyses.

Table 3-9: pH Reasonable Potential Analysis For Scenarios When Dilution at 100% Mix ≥ 10

INPUT	Lower pH Criteria	Upper pH Criteria
1. DILUTION AT MZ BOUNDARY (7Q10 from MZ Memo)	2.7	2.7
2. UPSTREAM CHARACTERISTICS		
Temperature (deg C):	10.2	5.6
pH:	7.00	7.58
Alkalinity (mg CaCO3/L):	8.8	8.8
3. EFFLUENT CHARACTERISTICS		
Temperature (deg C):	14.9	7.0
pH (S.U.) - Enter existing lower and upper limit	6.0	9.0
Alkalinity (mg CaCO3/L):	99.2	99.2
4. APPLICABLE PH UPPER AND LOWER CRITERIA	6.5	8.5
pH at Mixing Zone Boundary:	6.1	8.4
Is there Reasonable Potential?	Yes	No
Proposed Effluent Limits	6.4	9.0
Effluent Data Source: City of Sandy Copper BLM monitoring: 2020-2024		
Ambient Data Source: City of Sandy Copper BLM monitoring: 2020-2024		

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 analyses to determine if effluent limits were needed to comply with the temperature criteria.

Table 3-10: Temperature Criteria Information

Applicable Temperature Criterion	Core Cold Water 16ºC (OAR 340-041-0028(4)(b)
Applicable dates: Year-Round	
Salmon/Steelhead Spawning 13 °C? OAR 340-041-0028(4)(a)	☒Yes ☐No
Applicable dates: October 15 - June 15	
WQ-limited?	☐Yes ☒No
TMDL wasteload allocation assigned?	☒Yes ☐No
Applicable dates: May 1 – October 31	
Cold water summer protection criterion applies?	☐Yes ☒No
Cold water spawning protection applies?	☒Yes ☐No
Comments: See discussion below related to the protection of cold water – spawning.	

TMDL

The receiving stream, Tickle Creek, is listed in OAR 340-041-0340 Figure 340A as having a designated core cold-water habitat fish use year-round. The creek is also listed in OAR 340-041-0340 Figure 340B as having a designated salmon and steelhead spawning use from October 15 - June 15. The temperature criteria associated with these uses are listed in OAR 340-041-0028 as 16 °C and 13 °C, respectively (both expressed as the 7-day average of the daily maximum stream temperature[1]).

As noted in Section 3.3.3, DEQ issued – and EPA approved – a temperature TMDL for the Willamette Basin in 2025. This TMDL, which assessed temperature criteria for the entire year, assigned a wasteload allocation of 0 kcal/day to the facility for the period of May 1 – October 31. The TMDL determined that no wasteload allocation or effluent limit is necessary to address the applicable temperature criteria (presented in the table above) for the remainder of the year. This means that the facility may not discharge effluent with temperatures above the criteria from May 1- October 31. The current and proposed permits do not allow discharges to surface waters during this period, and the permit is therefore considered consistent with the TMDL.

Protecting Cold Water - Spawning

Oregon rules include a provision for the protection of waters that remain below the spawning criterion for extended periods (OAR 340-041-0028(11)(b)). While the temperatures of the receiving stream (Tickle Cr.) are often colder than this criterion, there is insufficient data to generate the 60-day average statistics for either the creek or effluent temperatures that are necessary to assess compliance with this provision. To ensure adequate data are available to complete this assessment at the next permit renewal, the proposed permit includes requirements for the permittee to monitor both the creek and the effluent temperatures.

[1] This metric is the same as the "7-day average maximum" temperature.

The proposed temperature effluent limits to address the temperature criteria (including the TMDL) are listed in the following table.

Table 3-11: Temperature Criterion Effluent Limits

Effluent limit needed? ☒Yes ☐No
TMDL WLA Limit: No discharge during the May 1 – October 31 period
Applicable time period: 5/1-10/31
Temperature Criterion Limit: NA
Applicable time period: Dates ☒NA
Comments: The WLA is 0 kcal/d during the 5/1 – 10/31 period, the permit addresses this via the no discharge allowance.

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.

  The facility is allowed to discharge from November 1 – April 30, a period that encompasses the entire time Tickle Creek (the receiving stream) has salmon and steelhead spawning as a designated beneficial use. The DEQ mixing zone study memo (3/12/25) indicates that good spawning habitat (with a possible redd) was observed just outside of the proposed mixing zone boundary for Outfall 001.

  Based upon this information, DEQ conducted an assessment to determine if the discharge has a reasonable potential to cause an impairment to active spawning areas located just below the edge of the mixing zone. As part of this assessment, it was found that the available receiving stream temperature data is insufficient to generate the 7-day average statistics used in the analysis for this provision. As a result, additional ambient temperature data will be required to support this assessment at the next permit renewal. Schedule B of the proposed permit requires the permittee to collect additional ambient temperature data. This includes daily ambient temperature monitoring during the months of November and April, the portion of the discharge season when receiving stream temperatures are most likely to approach 13 ºC. During the warmest portions of the spawning period (October 15 - 31 and May 1 - June 15) the facility is prohibited from discharging.

- 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.

  The maximum reported effluent temperature during the preceding 5 years was 19.7 ºC. This is well below the criterion, so acute impairment or instantaneous lethality is prevented or minimized.

- 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.

  The maximum reported effluent temperature during the preceding 5 years was 19.7 ºC. This is well below the criterion, so thermal shock is prevented or minimized.

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

  The maximum reported effluent temperature during the preceding 5 years was 19.7 ºC. This is below the criterion, so migration blockage is prevented or minimized.

Based on these assessments, no effluent temperature limits are required to comply with the thermal plume requirements.

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. As noted in Section 3.3.3 above, a TMDL for the basin assigned a wasteload allocation (WLA) to the permittee. This WLA is equivalent to the values described above. As such, the proposed permit limits presented in the following table are applicable year-round and address both rule and TMDL requirements.

Table 3-12: 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. The facility's current permit includes an ammonia maximum daily limit of 10.9 mg/L and a monthly average limit of 3.7 mg/L. DEQ performed reasonable potential analyses that account for changes in the effluent and receiving water pH and temperature to determine the appropriate ammonia criteria. The analyses considered the discharge scenario where it is restricted to conditions resulting in a dilution at full mix of 10 or greater (current permitted scenario). This scenario applies during the discharge season of November 1 – April 30.

The results of the analyses indicate that, using the facility's current maximum daily limit of 10.9 mg/L to characterize the effluent ammonia concentration, limits are needed. However, the calculated limits (presented in the table below) are less stringent than the current limits, which are a maximum daily limit (MDL) of 10.9 mg/L and an average monthly limit (AML) of 3.7 mg/L (see Table 3-1 above). Therefore, the current limits are considered protective of ammonia water quality criteria and are retained in the proposed permit.

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

Table 3-13: Ammonia Analysis Information – Winter
For Discharge Restricted to Full Mix Dilution ≥ 10

	Acute	Chronic	
		4-day	30-day
Dilution	1.7	2.7	2.7
Ammonia Criteria	18.1	6.6	2.6
Effluent Data Used			
Ammonia (mg/L)	10.9	10.9	
pH (SU)	7.2	7.2	
Temperature (ºC)	14.9	14.9	
Alkalinity (mg/L CaCO3)	27.0	27.0	
Receiving Stream Data Used			
Ammonia (mg/L)	0.02	0.02	
pH (SU)	7.6	7.6	
Temperature (ºC)	10.2	10.2	
Alkalinity (mg/L CaCO3)	19.0	19.0	
Ammonia Limit Needed?	Yes		
Calculated Limits	AML	MDL	
Ammonia (mg/L)	7.8	23.0	
Effluent data source			
pH data are from ICIS (file 102492-DATA-ICIICRPAReady-20250110); Temp and Alk are from City of Sandy's Copper BLM Monitoring; Ammonia effluent concentration is set at current permit's max. daily limit.			
Ambient data source			
Temperature, pH and alkalinity data are from City of Sandy's Copper BLM sampling. Ammonia data is from USGS Gaging Station No. 452414122213200.			

3.3.9.2 Priority Pollutant Toxics

DEQ conducted a reasonable potential analysis for the groups of toxics listed in the following table. A complete list of pollutants for each toxic group can be found in 40 CFR 122 Appendix J. A complete list of analytes with state Water Quality Criteria can be found in OAR 340-041-8033 Tables 30 and 40.

Table 3-14: Toxic Pollutants Analyzed

Toxic Group
Metals
Volatile Organic Compounds
Acid Extractable Compounds
Base-Neutral Compounds
Pesticides/PCBs [1]
Other Analytes with State Water Criteria [1]
[1] Parameters with state water quality criteria that are included by reference (CFR 122.21(j)(4)) for POTWs with ADWDF > 1.0 MGD.
Effluent data source: City of Sandy effluent sampling November 2020 – November 2024
Receiving water data source: AQWMS and City of Sandy Copper BLM sampling February 2015 – March 2024

There was no reasonable potential to exceed criteria for any of the toxic pollutants analyzed; therefore, no limits are included in the proposed permit for priority pollutants. Information for toxic pollutants without limits for this permit renewal is included in the permit file.

3.3.9.3 Copper Biotic Ligand Model

Monthly paired effluent and ambient copper BLM input data was collected by Sandy WWTP staff and analyzed by various labs starting in November 2020 through November 2024, resulting in 23 samples. For the RPAs, the mixed concentration of each input parameter was then entered into the BLM model to calculate the instantaneous water quality criteria (IWQC) for each paired data set. Each IWQC was compared to the corresponding copper concentration of the effluent or the calculated value at the ZID boundary, the MZ boundary, and at complete mix. This analysis considered the existing discharge scenario. Table 3-15 below shows the sample date, calculated criterion, calculated copper value, and toxic unit (copper concentration divided by the instantaneous criterion). A toxic unit greater than one indicates there is a potential for the discharge to exceed the criterion. A toxic unit of NA indicates that either the effluent data was below the calculated criteria, the effluent data was non-detect, or the copper data was in the total recoverable instead of dissolved fraction. There is no reasonable potential to exceed the copper criterion because there were no toxic units that exceeded 1.0.

Table 3-15: Copper BLM Results with Flow Based Effluent Discharge Limit

Date	Effluent Cu ug/L	Ambient Cu ug/L	ZID	BLM CMC	Toxic Units	RMZ	BLM CCC	Toxic Units	100% mix	BLM CCC	Toxic Units
			Cu ug/L	ug/L		Cu ug/L	ug/L		Cu ug/L	Cu ug/L	
2020-11-17	3.50	0.50	2.26	5.09	NA	1.61	2.68	0.60	1.28	2.41	0.53
2020-12-15	3.70	0.50	2.38	3.98	NA	1.69	1.98	0.85	1.33	1.58	0.85
2021-01-20	4.90	0.50	3.09	8.16	NA	2.13	3.23	0.66	1.65	2.75	0.60
2021-02-24	4.10	0.00	2.41	5.56	NA	1.52	2.27	0.67	1.07	2.09	0.51
2021-03-16	6.50	0.00	3.82	34.37	NA	2.41	26.34	NA	1.70	33.98	NA
2021-04-20	5.80	0.50	3.62	7.29	NA	2.46	3.64	0.68	1.88	3.25	0.58
2021-11-23	4.10	0.50	2.62	17.87	NA	1.83	9.53	NA	1.44	7.93	NA
2021-12-20	3.00	0.60	2.01	3.48	NA	1.49	2.13	0.70	1.23	2.28	0.54
2022-01-20	5.10	0.50	3.21	8.31	NA	2.20	4.34	0.51	1.70	3.46	0.49
2022-02-18	3.90	0.00	2.29	8.54	NA	1.44	4.21	NA	1.02	3.35	0.30
2022-03-22	4.10	0.24	2.51	5.75	NA	1.67	2.99	0.56	1.25	2.83	0.44
2022-04-21	2.00	0.00	1.18	2.32	NA	0.74	1.05	0.70	0.52	1.10	0.47
2022-12-27	3.40	0.32	2.13	11.10	NA	1.46	4.88	NA	1.12	3.89	NA
2023-01-27	4.90	0.32	3.01	16.63	NA	2.02	6.72	NA	1.51	5.07	NA
2023-02-27	4.10	0.32	2.54	10.60	NA	1.72	4.86	NA	1.31	3.65	0.36
2023-03-20	3.30	0.32	2.07	5.92	NA	1.42	2.58	0.55	1.10	2.08	0.53
2023-04-25	2.70	0.32	1.72	16.17	NA	1.20	6.22	NA	0.94	4.50	NA
2023-11-27	4.70	0.32	2.90	23.89	NA	1.94	12.48	NA	1.46	10.33	NA
2023-12-18	4.50	0.32	2.78	8.25	NA	1.87	3.73	0.50	1.41	3.08	0.46
2024-01-29	4.50	0.32	2.78	12.46	NA	1.87	5.27	NA	1.41	4.15	0.34
2024-02-26	6.20	0.32	3.78	22.41	NA	2.50	9.17	NA	1.85	7.01	NA
2024-03-25	4.70	0.32	2.90	33.49	NA	1.94	13.71	NA	1.46	10.41	NA
2024-11-25	3.50	0.00	2.06	4.42	NA	1.30	2.69	0.48	0.91	3.15	0.29

3.3.9.4 Aluminum

Monthly paired effluent and ambient aluminum criteria input data was collected by Sandy WWTP staff and analyzed by various labs starting in November 2020 through November 2024, resulting in 18 samples. For the RPAs, the mixed concentration of each input parameter was then entered into the aluminum criteria model to calculate the instantaneous water quality criteria (IWQC) for each paired data set. Each IWQC was compared to the corresponding aluminum concentration of the effluent or the calculated value at the ZID boundary, the MZ boundary, and at complete mix. The analysis was conducted using the current discharge effluent flow limit. Table 3-16 below shows the sample date, calculated criterion, calculated aluminum value, and toxic unit (aluminum concentration divided by the instantaneous criterion). A toxic unit greater than one indicates there is a concern that the discharge may have the potential to cause or contribute to an exceedance of the criterion. A toxic unit of NA indicates that either the effluent data was below the calculated criteria, or the effluent data was non-detect. There is no reasonable

potential to exceed the aluminum criterion because there were not any toxic units that exceeded 1.0.

Table 3-16: Aluminum Results with Flow Based Effluent Discharge Limit

Date	Effluent Al ug/L	Ambient Al ug/L	ZID	CMC	Toxic Units	RMZ	CCC	Toxic Units	100% mix	CCC	Toxic Units
			Al ug/L	ug/L		Al ug/L	ug/L		Al ug/L	Al ug/L	
2020-11-17	<110	380.00	45	870	NA	69	350	NA	81	340	NA
2020-12-15	19.00	200.00	94	700	NA	133	280	NA	153	270	NA
2021-01-20	17.00	150.00	72	910	NA	101	340	NA	115	310	NA
2021-02-24	15.00	260.00	116	810	NA	169	310	NA	196	300	NA
2021-11-23	35.00	230.00	115	1900	NA	158	720	NA	179	730	NA
2021-12-20	47.00	2600.00	1098	630	NA	1654	290	NA	1934	300	NA
2022-01-20	<42	910.00	375	1000	NA	573	380	NA	673	360	NA
2022-02-18	<42	130.00	17	1000	NA	26	380	NA	31	360	NA
2022-03-22	<100	530.00	218	890	NA	334	340	NA	392	330	NA
2022-04-21	130.00	280.00	100	1100	NA	100	380	NA	100	350	NA
2022-12-27	<100	980.00	404	510	NA	617	250	NA	724	250	NA
2023-01-27	<100	<100	0	1200	NA	0	420	NA	0	400	NA
2023-02-27	<100	260.00	41	1600	NA	63	510	NA	74	470	NA
2023-03-20	<100	130.00	41	1100	NA	63	380	NA	74	340	NA
2023-04-25	<100	220.00	41	820	NA	63	320	NA	74	300	NA
2023-11-27	<100	<100	0	1400	NA	0	510	NA	0	510	NA
2023-12-18	<100	160.00	41	1700	NA	63	550	NA	74	510	NA
2024-11-25	170.00	290.00	100	770	NA	100	360	NA	100	370	NA

Copper and Aluminum Monitoring requirements

The proposed permit will include 12 Copper BLM and Aluminum monitoring samples, to be collected at the same frequency as the Metals and Cyanide monitoring. This is to ensure that adequate data is available at the next permit renewal.

3.3.9.5 Alkalinity

Effluent data assessed as part of the ammonia reasonable potential (Section 3.3.9.1) indicate that the minimum alkalinity concentration of the facility's effluent was 21 mg/L and the average was 64.5 mg/L. The alkalinity criterion, which is a chronic criterion, is a minimum value of 20 mg/L. Based on this information the discharge is not considered to have a reasonable potential to cause or contribute to a violation of the criterion.

3.3.9.6 Mercury – Human Health Criterion

Oregon's human health water quality criterion for mercury is expressed in terms of a fish tissue concentration rather than a water column concentration. A Willamette Basin Mercury TMDL was established by EPA on December 30, 2019 and revised on February 4, 2021. According to the EPA TMDL and the State of Oregon Water Quality Management Plan, this facility must

conduct mercury monitoring and develop and implement a mercury minimization plan tailored to the facility's potential to discharge mercury.

The proposed permit includes a requirement for the permittee to develop and submit a mercury minimization plan (in Schedule A) and to conduct associated effluent monitoring (in Schedule B). Once the plan is submitted to DEQ for review, it must go on public notice for public review and is incorporated into the permit by reference.

3.4 Antibacksliding

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

3.5 Antidegradation

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

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

3.6 Whole Effluent Toxicity

Whole effluent toxicity (WET) tests are used to determine the treated wastewater's aggregate toxic effect on aquatic organisms. Wastewater samples are collected, and aquatic organisms are subjected to a range of concentrations in controlled laboratory experiments. EPA recommends that WET tests be used in NPDES permits together with requirements based on chemical-specific water quality criteria.

WET tests are used to determine the percentage of effluent that produces an adverse effect on a group of test organisms. The measured effect may be fertilization, growth, reproduction, or survival. EPA's methodology includes both an acute test and a chronic test. An acute WET test is considered to show toxicity if adverse effects occur at effluent concentrations less than what is found at the edge of the Zone of Immediate Dilution (ZID). A chronic WET test is considered to show toxicity if adverse effects occur at effluent concentration less than what is known to occur at the edge of the mixing zone.

3.7 Groundwater

The treatment facility does not have any basins, ponds, lagoons, or other systems 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 WWTP currently manages all its wastewater solids by landfilling offsite. Should the permittee decide in the next permit term to treat, and land apply their wastewater solids as biosolids, the permittee will be required to develop a Biosolids Management Plan. At a minimum, this plan will need to detail that the facility's wastewater solids will meet biosolids pollutant limits defined in OAR 340-050 and 40 CFR Part 503 and will be treated to meet state and federal criteria for pathogen reduction (Class A or Class B biosolids) and vector attraction reduction. The plan will also be subject to public comment before it may be implemented.
For all Class B biosolids to be land applied under this permit, Schedule A of the permit requires the facility to apply biosolids according to its Biosolids Management Plan. In addition, Schedule A requires the following:

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

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

4.3 Recycled Water

The WTTP currently operates a recycled water program to produce Class B recycled water for irrigating ornamental nursery stock/crops and anticipates continuing to do so in the next permit term. The WTTP's current recycled water use plan (last updated in November 2017) includes the seasonal irrigation (spring and summer) of Class B recycled water at the Iseli Nursery in Boring.

Class B recycled water is irrigated (spray and drip) at the Iseli Nursery to grow a variety of ornamental plants such as spruce, false cypress, pines, junipers, barberry, maples, blue spruce, cedars, holly, and hemlock. The recycled water is applied to these crops to meet the nitrogen and water requirements for these crops.

During the next permit term, the WTTP may update its existing plan to include new areas for irrigation and possibly more or differing stock at the Iseli Nursery. Any significant modifications to the WTTP's existing recycle water use plan will require DEQ review and a public notice period prior to implementing changes to the recycled water use program.

Schedule A of the permit specifically requires the WTTP to treat and apply its recycled water according to its DEQ-approved 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, and
- 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 for discharges through Outfall 001 and 003. Chlorine or chlorine compounds may be used for disinfection and line maintenance purposes for recycled water discharges through Outfall 002.

4.5 Outfall 003 Flow Restriction

The current permit's prohibition of discharges from Outfall 003 when the facility's flows are less than 4.0 MGD is retained in the proposed permit.

5. Schedule B: Monitoring and Reporting Requirements

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

6. Schedule C: Compliance Schedule

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

7. Schedule D: Special Conditions

The proposed permit contains the following special conditions:

7.1 Inflow and Infiltration

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

7.2 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 permittee to develop and maintain a recycled water use plan that meets 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 permittee 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 Hauled Waste Control Plan

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

7.10 Hauled Waste Annual Report

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

7.11 Whole Effluent Toxicity Testing

The permittee is required to perform WET testing to ensure the aggregate of toxics is not negatively impacting aquatic life. This condition describes the test procedures and requirement for the WET testing. A dilution series has been specified on the basis of the mixing zone analysis, utilizing the dilutions derived for the most critical discharge scenario.

7.12 Operator Certification

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

7.13 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.

7.14 Outfall Inspection

A condition that requires the permittee to inspect the outfalls and submit a report regarding their condition.

7.15 Receiving Water Flow Monitoring Plan

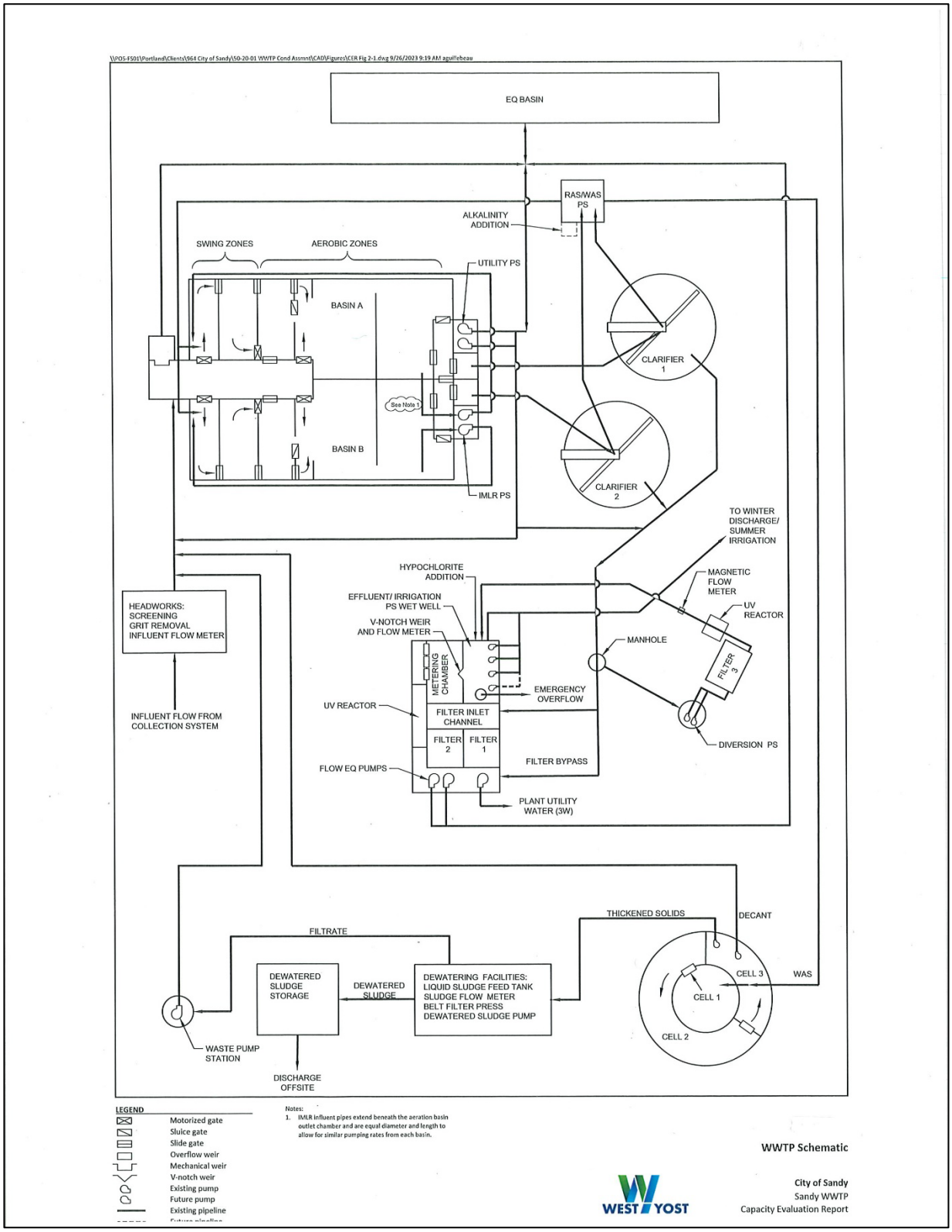
A condition that requires the permittee to submit to DEQ a plan that describes the methods and standard operating procedures used to measure receiving stream flow.

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: Facility Flow Schematic



DEQ response to comments

NPDES Permit: City of Sandy Wastewater Treatment Plant

File number: 78615
Site Record number: 7368
Permit number: 102492

May 6, 2026

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Overview

DEQ accepted public comment on the proposed National Pollutant Discharge Elimination System (NPDES) Permit Number 102492 from March 16 through April 20. This permit originally expired on November 30, 2013, and was administratively continued. A public hearing was not held for the proposed permit.

This document provides a summary of each comment received and a response from DEQ. A record of these responses to comment are delivered to the commenter upon "notice of delivery" of the permit and stored in the administrative record.

The following individuals or entities submitted written comments by mail or email during the public comment period:

List of commenters		
#	**Commenter**	**Affiliation**
1	Mary Logalbo – Executive Director	Clackamas River Basin Council
2	A.J. Thorne – Public Works Director	City of Sandy

Public comments received by the close of the public comment period are organized by commenter or by topic if more than one comment was made about the same topic. DEQ's response in italics follows the summary comment. Original comments are on file with DEQ.

In addition, DEQ made minor edits to Schedule D Condition 11 (Whole Effluent Toxicity Testing for Freshwater) relative to the dilution series within the various test methods. These changes were not made in response to any public comments, rather these edits were made to be consistent with current WET testing procedures. The reason for these changes is presented at the end of the responses to public comments in this document.

Public comments made during the public comment period and DEQ's response are presented below:

Comments from Clackamas River Basin Council

1. Mary Logalbo – Clackamas River Basin Council (Date submitted - April 2, 2026)

Comment: There is no Schedule C: Compliance Schedule in DEQ's draft NPDES permit. For example, we note on page 36 of 48 the following:

g. Reopener – DEQ may reopen and modify this permit to include news limits, monitoring requirements, and/or conditions as determined by DEQ to the appropriate, and in accordance with procedures outlined in OAR Chapter 340, Division 45 if: i. WET testing data indicate acute

and/or chronic toxicity. ii. The facility undergoes any process changes. iii. Discharge monitoring data indicate a change in the reasonable potential to cause or contribute to an exceedance of a water quality standard.

What appears to be missing is an important requirement along the lines of:

The City of Sandy shall pursue without delay all options to reduce or eliminate discharges to Tickle Creek. A report describing such efforts, including but not limited to a regional transport of wastes to a facility such as the City of Gresham, shall be submitted to DEQ by no later than ___ and progress reported periodically including reasons for current conditions and how such solutions or changes will be pursued and time schedules for progress and completion…

DEQ Response: *DEQ acknowledges that the proposed Permit does not include a Schedule C or compliance schedule. Compliance schedules are included in NDPES permits when a new or more stringent water quality-based effluent limitation is being implemented and the permittee needs to perform modifications to their facility or processes to come into compliance with that limit. In this case, Sandy is expected to meet any new or more stringent Schedule A limits upon the Permit effective date. As a result, a compliance schedule is not included in the NPDES Permit renewal.*

The City is currently addressing the issues with its facility and its discharges to Tickle Creek through a consent decree from the US Environmental Protection Agency and a Mutual Agreement and Order (MAO) with DEQ to address the issues under the consent decree. These are enforceable instruments separate from the NPDES Permit. The conditions of the consent decree and MAO can't be included in the NPDES Permit since they are separate enforcement instruments.

The comment cites a reopener clause that is contained in Schedule D Condition 11 (Whole Effluent Toxicity Testing for Freshwater), and this reopener clause is only related to the results of the Whole Effluent Toxicity (WET) Testing. Per this condition, the Permit could be reopened by DEQ if the WET testing indicates that existing treatment processes are producing effluent that is resulting in chronic or acute toxicity. The DEQ can reopen the Permit to address this toxicity.

No changes to the Permit or Permit Fact Sheet were made as result of this comment.

2. Mary Logalbo – Clackamas River Basin Council (Date submitted – April 2, 2026)

Comment: Receiving Water Flow Monitoring Plan - CRBC appreciates this section of the draft NPDES permit. Our concern is that vertical metal gauge on the Colorado Street Bridge pier is dubious if that is what Sandy continues to use. If DEQ staff have seen the Colorado Street Bridge metal gauge, your employees must surely agree. CRBC suggests that a condition requiring an Oregon Water Resources Department (WRD) approved stream gauge be constructed and rigorously maintained. Further, we ask that it be telemetered, and its data be made accessible to anyone inquiring about its information.

DEQ Response: *As indicated in Schedule D15 (Receiving Water Flow Monitoring Plan), it will be the permittee's responsibility for developing a plan that describes the methods and standard operating procedures used to measure stream flow in Tickle Creek. This plan must describe the type of stream gauge or measurement used, the location of stream gauge or flow measurement location and how stream flow is being calculated based upon the selected method. This condition does not necessarily require the use of a stream gauge such as the one that exists on the Colorado Street Bridge as indicated by the comment. The permittee may use other methods of stream flow measurement provided the selected method is accurate and reliable. Should the City of Sandy elect to use the Colorado Street Bridge metal gauge as the proposed method of stream*

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flow measurement, it will be the City's responsibility to make sure that the stream flow determined from this gauge provides the data that is of the necessary precision and accuracy for the intended data use.

In its review of the draft monitoring plan, DEQ can provide comment and recommendations as to the standard operating procedure and measurement type to ensure that the proposed method produces reliable results and follows accepted stream flow measurement practices for small streams. DEQ does not require stream flow measurements to be telemetered.

No changes to the Permit or Permit Fact Sheet were made as a result of this comment.

3. Mary Logalbo – Clackamas River Basin Council (Date submitted – April 2, 2026)

Comment: CRBC is impressed by Schedule F: NPDES General Conditions. Especially, B3 – Bypass of Treatment Facilities (1) even with the reasonable considerations of (b) and (c) and their subsections.

DEQ Response: *DEQ acknowledges the comment provided. No changes to the Permit or Permit Fact Sheet were made as a result of this comment.*

4. Mary Logalbo – Clackamas River Basin Council (Date submitted – April 2, 2026)

Comment: CRBC is puzzled about Figure 2-1: Facility and Outfall Locations. Outfalls 001, 002 and 003 on the map/photo do not seem to match our understanding of all the outfall locations. Is there an "004"? Namely, from the nursery that Sandy uses for ponding of Sandy's summer effluent. We may be misunderstanding that this discharge is in fact 003. But whatever it may be, 003 or 004, that discharge appears to be highly chlorinated as witnessed from observations by our staff and volunteers.

***DEQ Response*:** *As described in Section 2.1 (Wastewater Facility) of the Permit Fact Sheet and Figure 2-1, the facility discharges treated wastewater to Tickle Creek at Outfall 001 (River Mile 2.1) during the winter season (November 1 through April 30). This outfall is located some distance downstream of the facility. During the summer season (May 1 through October 31), no discharge to Tickle Creek is allowed - all effluent receives Class B recycled water treatment and is pumped to the Iseli Nursery holding pond from where it is irrigated on nursery stock. Outfall 002 is at the Iseli Nursery holding pond as shown on Figure 2-1. The recycled water effluent discharged into the Iseli Nursery through Outfall 002 is not fully dechlorinated since it is land applied.*

Outfall 003 is an emergency outfall located at River Mile 3.4 on Tickle Creek and is located in close proximity to the Sandy facility. The facility only discharges through Emergency Outfall 003 when peak instantaneous wet weather flow exceeds 4.0 million gallons per day (MGD).

There is no Outfall 004 in the proposed Permit. This outfall does not exist. The Permit renewal does not propose any outfall changes.

No changes were made to the Permit or Permit Fact Sheet as a result of this comment.

Comments from AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

1. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Comment refers to no effluent discharge prohibition from May 1 – October 31 in Table A1: Permit limits for Outfalls 001 and 003 on page 5 of the draft Public Notice Permit.

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Comment: If weather conditions limit the use of recycled water, and there isn't adequate storage, the City needs to be able to discharge to surface waters. Note that this provision can be included in a Mutual Agreement and Order (MAO) that would provide the City a bridging strategy until such time as the City implements the long-term solution from the Facilities Plan Amendment.

***DEQ Response*:** *The DEQ will address direct discharge violations to surface waters from May 1 - October 31 on a case-by-case basis. An MAO would only be employed as a compliance mechanism if there were several violations of this permit provision. Initiating or employing an MAO at this time is not an appropriate permitting mechanism.*

No changes were made to the Permit or Permit Fact Sheet as a result of this comment.

2. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Comment refers to daily minimum stream dilution of ≥ 10 for discharges through Outfalls 001 and 003 from November 1 – April 30 as presented in Table A1: Permit limits for Outfalls 001 and 003 on page 5 of draft Public Notice Permit.

Comment: DEQ should authorize a lower dilution ratio for the discharge. This can be done with a note that states that the facility can discharge at lower dilution ratios as long as a 1:1 ratio is maintained with stream flow and BOD/TSS effluent quality.

Alternatively, DEQ can suspend the dilution ratio in a MAO that provides for a bridging strategy until the implementation of the selected strategy from the FPA.

***DEQ Response*:** *DEQ will be maintaining a dilution ratio of 10:1 in the proposed Permit. The 10:1 dilution maintains that no more than 1 mg of BOD_5 will be added to the creek with the current Permit limit per OAR 340-041-007(15)(A)(i). In addition, the 10:1 dilution keeps the Permit consistent with antidegradation requirements. DEQ will address direct discharge violations to the dilution ratio on a case-by-case basis. An MAO would only be employed if there were several violations of this Permit provision. Initiating or employing an MAO at this time is not an appropriate permitting mechanism.*

No changes were made to the Permit or Permit Fact Sheet as a result of this comment.

3. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Comment refers to BOD_5 and TSS monthly average concentration limit of 10 mg/L from November 1 – April 30 as presented in Table A1: Permit limits for Outfalls 001 and 003 on page 5 of draft Public Notice Permit.

Comment: BOD_5 and TSS limits are 10 mg/L - substantially lower than basin standards for surface discharge in the wet season. Note that has a cascading impact as mass limits are also based on these concentrations. There is no discussion or explanation in the fact sheet regarding this issue.

***DEQ Response*:** *Per the Permit Fact Sheet, the facility has been designed to achieve 10 mg/L during wet weather flows. The winter effluent concentrations were incorporated into the existing 2010 permit and will be maintained in the proposed Permit to be consistent with anti-degradation and anti-backsliding regulations.*

No changes were made to the Permit or Permit Fact Sheet as a result of this comment.

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4. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Comment refers to the addition of clarifying note at the bottom of Table A1: Permit limits for Outfalls 001 and 003 on page 5 of draft Public Notice Permit.

Comment: Add two additional notes:

1. Daily mass load limit waiver when flows exceed twice the average dry weather design flow (2.5 MGD).
2. Authorization for discharge as long as a 1:1 ratio is maintained stream flow and BOD/TSS effluent quality.

***DEQ Response*:** *The daily mass load limit waiver that is included within the existing 2010 Permit will not be added to the proposed Permit. The permittee made improvements to the facility in 1998 and 2024. The facility improvements in 1998 included new clarifiers which improved secondary treatment. The daily mass load suspension is not applicable to facilities that expanded secondary treatment after 1992 per regulations. Therefore, the daily mass load exemption will not be included within the proposed Permit. DEQ will address future violations of the mass load limits due to high flows on a case-by-case basis.*

See response to City of Sandy Comment No. 3 above regarding the dilution ratio.

No changes were made to the Permit as a result of this comment. Section 2.1 (Wastewater Facility) of the Permit Fact Sheet was modified to clarify the improvements made to the existing facility in 1998.

5. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Two identical comments refer to the frequency of quarterly sampling presented in Table B1: Reporting Requirements and Due Dates (page 11 of draft Public Notice Permit) relative to sampling on a quarterly basis while discharging to Tickle Creek until 12 samples are collected. The quarterly sampling refers to Table B5: Copper Biotic Ligand Model and Aluminum Sampling Requirements and Tables B6-B9: Metals and Cyanide; Volatile Organic Compounds; Acid Extractable Compounds; and Base Neutral Compounds in Schedule B of permit.

Comment: Sandy only discharges 2 quarters/year. It would take 6 years to acquire 12 samples based on this language. Please provide a clear frequency.

DEQ Response: *Under the Frequency column heading for Table B1: Reporting Requirements and Due Dates on Page 11 of the Public Notice draft of the Permit, the permittee is directed to "see note a" at the bottom of Table B1. Note "a" at the bottom of Table B1 provides a definition of date ranges for the four annual quarters within a calendar year. Since the permittee's facility is permitted to discharge from November 1 - April 30, this discharge period falls within the date ranges of three quarters (fall, winter and early spring) for each calendar year. Given proper scheduling, the permittee should be able to collect samples during three continuous quarters of each calendar year.*

For the final Permit, DEQ will be requiring that sampling start in the fourth quarter (Q4) of 2026. As such, there will be at least 15 quarters during the next Permit term in which the permittee will be able to collect the 12 required samples.

With the exception of adding a starting quarter and year for the sampling (Q4 of 2026), no other changes were made to the Permit or Permit Fact Sheet as a result of this comment.

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6. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Two identical comments refer to the sampling frequency requirement presented in Table B1: Reporting Requirements and Due Dates (page 11 of the draft Public Notice Permit) relative to sampling for parameters listed on Tables B10 and B11: Pesticides and PCBs; and Other Parameters with State Water Quality Criteria and Table B12: WET Test Monitoring in Schedule B. The Permit currently requires sampling every 3rd quarter while discharging to Tickle Cr. starting QX of 20YY until at least three samples are collected for parameters listed in Table B10 and B11 and four samples are collected for Whole Effluent Toxicity testing in Table B12.

Comment: Facility does not discharge to Tickle Creek in Q3. This should specify Q1 or Q4.

DEQ Response: Under the Frequency column heading for Table B1: Reporting Requirements and Due Dates on Page 11 of the Public Notice draft of the Permit, the permittee is directed to "see note a" at the bottom of Table B1. Note "a" at the bottom of Table B1 provides a definition of date ranges for the four annual quarters within a calendar year. Since the permittee's facility is permitted to discharge from November 1 - April 30, this discharge period falls within the date ranges of three quarters (fall, winter and early spring) for each calendar year. Given proper scheduling, the permittee should be able to collect samples during three continuous quarters which will allow for sampling every third quarter while discharging.

In the proposed Public Notice draft of the Permit, DEQ requires that sampling start in the second quarter (Q2) of 2027. This would require the facility to sample in April at the beginning of the second quarter before discharge to Tickle Creed stops on April 30. Assuming that sampling starts in Q2 of 2027, the next third quarter is Q1 of 2028 when the facility will be discharging. And the next third quarter will be Q4 2028 when the facility is also discharging. This will allow for the collection of 3 samples for the parameters listed on Tables B10: Pesticides and PCBs; and Table B11: Other Parameters with State Water Quality Criteria.

In addition, the DEQ will also require that sampling for the parameters listed in Table B12: WET Test Monitoring start in the second quarter (Q2) of 2027. It is not currently defined in the proposed Public Notice draft of the Permit. Given proper scheduling, the permittee should be able to collect 4 samples during the next Permit term. Assuming that sampling starts in Q2 of 2027, the next third quarter will be Q1 of 2028, and the next third quarter is Q4 of 2028. The facility should be discharging during all of these quarters. The next third quarter is Q3 of 2029 when the facility is not discharging. Per note "a" of Table B1, the facility simply collects a sample in the next quarter when discharge is occurring. Given a proposed start of sampling Q2 of 2027, there will be adequate time in the next Permit term to collect the 4 samples required for the WET testing under Table B12.

With the exception of adding a starting quarter and year for the sampling (Q2 of 2027), no other changes were made to the Permit or Permit Fact Sheet.

7. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Comment refers to Note "c" at the bottom of Table B1: Reporting Requirements and Due Dates (page 13 of the draft Public Notice Permit). Note "c" is for Whole Effluent Toxicity (WET) testing in Table B12 and currently states: At the time of WET sampling, the permittee will collect and analyze effluent samples for the parameters listed in Schedule B5 of this permit.

Comment: This should be limited to Tables B6 - B9. Tables B10 and B11 specify pesticides and PCBs, and other pollutants with state standards; these are legacy pollutants or other pollutants that are not of concern at municipal wastewater treatment facilities. Monitoring for these pollutants is being required to satisfy a federal requirement that monitoring be conducted for all

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pollutants that have WQ criteria. Additionally, note that monitoring for Table B10 and B11 pollutants is 3 times over the permit cycle whereas WET testing is required 4 times over the permit cycle so concurrent monitoring cannot be conducted for Table B10 pollutants during WET testing.

***DEQ Response**: The sampling requirements specified by note "c" in Table B1 will not be changed. At the time of WET sampling, the permittee will be required to collect and analyze samples for the parameters listed in Schedule B.5 (Effluent Toxics Characterization Monitoring). The requirement to monitor Table B10 and B11 pollutants at least three times with WET samples will remain in the Permit. The WET samples will be conducted four times and are to occur concurrently with the other toxics sampling. DEQ intends to start the sampling in Q2 of 2027 to provide ample opportunity for the permittee to collect samples within the timing requirements of the Permit (see responses to City of Sandy Comment No. 6 above). The WET and toxics sampling is to be conducted at the same time to help identify if any known pollutants are causing a WET test failure. Without the paired sampling, more toxics sampling will be required to determine the source of toxicity causing the WET test failure. This Permit language expediates the process of identifying the source(s) of WET test failures.*

No changes were made to the Permit or Permit Fact Sheet as a result of this comment.

8. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Seven (7) identical comments are presented on Table B3: Effluent Monitoring Requirements for Outfalls 001 and 003 relative to quarterly sampling for dissolved oxygen, total kjeldahl nitrogen (TKN), nitrate and nitrite nitrogen, oil and grease, total phosphorus, total dissolved solids, and total phenolic compounds. The sampling requirements are presented at the end of Table B3 on pages 19 and 20 of the draft Public Notice Permit with the same comment (presented below) provided for each of the parameters. The draft Permit currently requires quarterly sampling in the third and fourth years of the Permit cycle (2028 and 2029). The draft Permit also provides a clarifying note for this sampling (Note "g") at the end of Table B3 (page 20) to indicate that the permittee must collect four quarterly samples for each parameter listed. The note also defines the quarters within a calendar year and that sampling is to occur during periods of discharge.

Comment: Clarify total number of samples required. Will these only be taken during the discharge period?

***DEQ Response:** The permittee will be required to collect four quarterly samples for dissolved oxygen, total Kjeldahl nitrogen (TKN), nitrate and nitrite nitrogen, oil and grease, total phosphorus, total dissolved solids, and total phenolic compounds, as listed on Table B3 (Effluent Monitoring Requirements for Outfalls 001 and 003). This is specified in note "g" at the bottom of Table B3. Note "g" is referenced in the Minimum Frequency column for each parameter.*

Per note "g", the permittee is required to collect four samples for each parameter during the third and fourth years of the Permit term (2028 and 2029). The facility is expected to collect samples during the annual discharge period of November 1 - April 30. This time period falls into three quarters of each calendar year. If no discharge occurs to Tickle Creek during the quarter (such as Q3), the permittee is directed to sample in the following quarter until four samples are collected. The permittee will have six opportunities to sample during the third and fourth years of the proposed Permit term.

No changes were made to the Permit or Permit Fact Sheet as a result of this comment.

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9. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Comment refers to Note "c" at the bottom of Table B5: Copper Biotic Ligand Model and Aluminum Sampling Requirements (page 22 of the draft Public Notice Permit). Note "c" states: "Permittee to sample during quarters when the facility is discharging to Tickle Creek and for duration specified in Table B1". On Table B1: Reporting Requirements and Due Dates (page 11 of the draft Public Notice Permit), the permittee is required to sample for the parameters listed in Table B5 on a quarterly basis while discharging to Tickle Creek starting QX of 20YY until 12 samples are collected. Other notes on Table B1 provide clarification as to the sampling frequency.

Comment: See previous comment on specifying number of samples per year and noting the specific quarters in which samples should be collected. (Note: This comment refers back to City of Sandy Comment No. 5 listed above.)

DEQ Response: *Under the Frequency column heading for Table B1: Reporting Requirements and Due Dates on Page 11 of the public Notice Draft of the Permit, the permittee is directed to "see note a" at the bottom of Table B1. Note "a" provides a definition of date ranges for the four annual quarters within a calendar year. Since the permittee's facility is permitted to discharge from November 1 - April 30, this discharge period falls within the date ranges of three quarters (fall, winter and early spring) for each calendar year. Given proper scheduling, the permittee should be able to collect samples during three continuous quarters of each calendar year.*

For the final Permit, DEQ will require that sampling start in the fourth quarter (Q4) of 2026. As such, there will be at least 15 quarters during the next Permit term in which the permittee will be able to collect the 12 required samples.

With the exception of adding a starting quarter and year for the sampling (Q4 of 2026), no other changes were made to the Permit or Permit Fact Sheet.

10. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Comment refers to Note "e" at the bottom of Table B5: Copper Biotic Ligand Model and Aluminum Sampling Requirements (page 22 of the draft Public Notice Permit). Note "e" states: "Effluent samples must be in Total Recoverable fraction. Upstream samples must be in the Bioavailable fraction."

Comment: The bioavailable method was jointly developed by Oregon DEQ and Clean Water Services (CWS). However, it is not available at contract labs.

***DEQ Response*:** *There is no legal requirement for wastewater or ambient water to be analyzed by an accredited lab. DEQ has found that using total aluminum instead of bioavailable aluminum results in an extremely conservative analysis that is likely to result in additional aluminum limits in permits. Therefore, it is DEQ policy that ambient monitoring is for bioavailable aluminum instead of total aluminum, and is consistent with the federally promulgated aluminum rule (Federal Aluminum Aquatic Life Criteria Applicable to Oregon), as well as Aluminum Standard Interpretation and Application Procedures for Oregon..*

As bioavailable aluminum monitoring is a permit requirement, DEQ suggests that Sandy reach out to the permitting program for more guidance if Sandy is still having difficulties locating a lab that can analyze bioavailable aluminum prior to the required monitoring start date.

No changes were made to the Permit or Permit Fact Sheet as a result of this comment.

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11. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Comment refers to Table B13: Recycled Water Monitoring on page 28 of the Public Notice draft of the Permit relative to the requirement for quarterly sampling for total Kjeldahl nitrogen, nitrite and nitrate, total ammonia (as N), and total phosphorus.

Comment: Define all "quarterly" frequencies in this table per previous comments.

DEQ Response: *The quarterly frequencies for Table B13: Recycled Water Monitoring are defined in note "a" at the end of the table. As stated by note "a": "Monitoring must be conducted whenever the facility is producing recycled water. The production of recycled water typically occurs from May 1 through October 31. Quarters are defined as : Q1 – Jan – Mar, Q2: April – June, Q3: Jul – Sept, and Q4: Oct – Dec."*

The annual discharge period is May 1 - October 31, which incorporates portions of three (3) quarters. So, if the facility discharges recycled water from May 1 - October 31 - the permittee has an opportunity to sample for three quarters. Should no discharge occur from the facility within a specific quarter, then no sampling is required.

No changes to the Permit or Permit Fact Sheet were made as a result of this comment.

12. AJ Thorne – City of Sandy (Date Submitted April 20, 2026)

Note: Comment refers to Schedule D Condition 4: Recycled Water Use Plan on page 32 of the Public Notice draft of the permit. This condition generally requires the permittee to update and maintain a DEQ-Approved Recycled Water Use Plan.

Comment: Sandy's recycled water use plan is on file with DEQ and has not changed.

DEQ Response: *The permittee's existing Recycled Water Use Plan was last updated in 2017. This will make the plan more than 10 years old during the new Permit term. In discussions with DEQ staff, the permittee's principal customer for recycled water has indicated a desire to bring more land under recycled water use. In addition, upgrades or modifications to the existing facility may be initiated during the next Permit term. For these reasons, the plan must be updated within the next Permit term. DEQ will maintain the condition to "update and maintain" a DEQ-approved Recycled Water Use Plan during the next Permit term.*

No changes were made to the Permit or Permit Fact Sheet as a result of this comment.

DEQ Edits to Schedule D Condition 11 (Whole Effluent Toxicity Testing for Freshwater)

DEQ made several edits to the dilution series required for acute toxicity, chronic toxicity and dual end-point WET testing. The original dilution series for acute, chronic and dual endpoint were the same. These were updated to reflect current DEQ policy so that the acute dilution series was based on the dilution at the zone of initial dilution, the chronic WET test dilution series was based on the dilution at the end of the regulatory mixing zone. The revisions to the dilutions series also required changes to the NOEC and IC25 values to reflect the percent dilution represented at the ZID and RMZ (59% for the ZID and 37% for the RMZ) in the testing procedures.

The following dilution series are included for the WET testing in the permit (Schedule D.11):

Acute Dilution Series: 100% effluent; 79%; 59%; 30%; 15% and a control (0% effluent).
Chronic Dilution Series: 100% effluent; 68.5%; 37%; 19%; 15% and a control (0% effluent)

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Dual Endpoint Series: 100% effluent; 79%; 59%; 37%; 15% and a control (0% effluent).

Alternative formats

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email deqinfo@deq.state.or.us.

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