



# NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM WASTE DISCHARGE PERMIT MODIFICATION #1

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

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

**ISSUED TO:**

City of Gresham  
 1333 NW Eastman  
 Parkway.  
 Gresham, OR 97030

**SOURCES COVERED BY THIS PERMIT:**

Type of Waste	Outfall Number	Outfall Location
Treated Wastewater	001	45.5591 / -122.4586
Recycled Water Reuse	N/A	Reuse
Biosolids	N/A	Specified in Biosolids Management/Land Application Plan

**FACILITY LOCATION:**

20015 NE Sandy Blvd.  
 Portland, Oregon 97230  
 County: Multnomah

**RECEIVING STREAM INFORMATION:**

WRD Basin: Willamette  
 USGS Sub-Basin: Lower Columbia/ Willamette  
 Receiving Stream name: Main Stem Columbia River  
 NHD Reach Code: 17080003039216 82.8%  
 LLID: 1240483462464 – 117.5

EPA Permit Type: Major

Modification in response to request received July 31, 2024. This permit is issued based on the land use findings in the permit record.

Tiffany Yelton-Bram  
 Water Quality Manager, Northwest Region

January 10, 2025  
 Issuance Date

January 13, 2025  
 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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## Change in Schedule A: Waste Discharge Limits

Deletion indicated in red ~~strikeout~~.

### SCHEDULE A: WASTE DISCHARGE LIMITS

#### 1. Outfall 001 – Permit Limits

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

Table A1: Permit Limits

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
BOD <sub>5</sub> (May 1 – October 31)	mg/L	20	30	
	lb/day	2,502	3,753	5,004
	% removal	85	-	-
TSS (May 1 – October 31)	mg/L	20	30	
	lb/day	2,502	3,753	5,004
	% removal	85		
BOD <sub>5</sub> (November 1 – April 30) (See note a.)	mg/L	30	45	
	lb/day	6,225	9,380	12,510
	% removal	85	-	-
TSS (November 1 – April 30) (See note a.)	mg/L	30	45	
	lb/day	6,225	9,380	12,510
	% removal	85		
Chlorine, Total Residual (Interim Limit) (See notes b and c.)	mg/L	0.14	-	0.36
Chlorine, Total Residual (Final Limit) (See notes b and c.)	mg/L	0.14	-	0.36
Thermal Discharge (July 1 – September 30) (See note d.)	million kcal/day	1,350	-	-
pH	SU	Instantaneous limit between a daily minimum of 6.0 and a daily maximum of 8.5		
<i>E. coli</i> (See note e.)	#/100 mL	Must not exceed a monthly geometric mean of 126, no single sample may exceed 406		
<del>Total Ammonia as N (May 1—October 31) (Final Limits) (See note f.)</del>	<del>mg/L</del>	<del>41</del>	<del>-</del>	<del>47</del>

Notes:

- When monthly average flows exceed 25 MGD, the percent removal rate will be no less than 75 percent.
- DEQ has established a Quantitation Limit of 0.05 mg/L for Total Residual Chlorine. Any analysis done for Total Residual Chlorine must have a quantitation limit that is either equal to or less than 0.05 mg/L. In cases where the average monthly or maximum daily limit for Total Residual Chlorine is lower than the Quantitation Limit, DEQ will use the reported Quantitation Limit as the compliance evaluation level.

Parameter	Units	Average Monthly	Average Weekly	Daily Maximum
<p>c. The interim Total Residual Chlorine limit is effective upon permit issuance. The final Total Residual Chlorine limit is effective after completion of the compliance schedule in Schedule C.</p> <p>d. The monthly average Thermal Discharge is to be calculated as directed in note d of Table B3.</p> <p>e. If a single sample exceeds 406 organisms/100 mL, the permittee may take at least 5 consecutive re-samples at 4-hour intervals beginning within 28 hours after the original sample was taken. A geometric mean of the 5 re-samples that is less than or equal to 126 <i>E. coli</i> organisms/100 mL demonstrates compliance with the limit.</p> <p><del>f. The final Total Ammonia as N limits are effective after completion of the compliance schedule in Schedule C.</del></p>				

## Change in Schedule B: Minimum Monitoring and Reporting Requirements

*Deletion indicated in red strikethrough. Additions indicated in red underline.*

### SCHEDULE B: MINIMUM MONITORING AND REPORTING REQUIREMENTS

#### 3. Monitoring and Reporting Requirements

- b. The permittee must monitor effluent at Outfall 001 between the chlorine contact basin weirs and the outfall and report results in accordance with Table B1 and the table below:

**Table B3: Effluent Monitoring Requirements**

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a.)	Report Statistic (See note b.)
Flow (50050)	MGD	Year-round	Daily	Metered	1. Monthly Average 2. Daily Maximum
BOD <sub>5</sub> (00310)	mg/L	Year-round	3/week	24-hour composite	1. Monthly Average 2. Maximum Weekly Average
BOD <sub>5</sub> (00310)	lb/day	Year-round	3/week	Calculation	1. Daily Maximum 2. Monthly Average 3. Maximum Weekly Average
BOD <sub>5</sub> Percent Removal (See note c.) (81010)	%	Year-round	Monthly	Calculation based on monthly average BOD <sub>5</sub> concentration values	Monthly Average
TSS (00530)	mg/L	Year-round	3/week	24-hour composite	1. Monthly Average 2. Maximum Weekly Average
TSS (00530)	lb/day	Year-round	3/week	Calculation	1. Daily Maximum 2. Monthly Average 3. Maximum Weekly Average
TSS Percent Removal (81011) (See note c.)	%	Year-round	Monthly	Calculation based on monthly average TSS concentration values	Monthly Average
pH (00400)	SU	Year-round	Daily	Grab	1. Daily Maximum 2. Daily Minimum

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a.)	Report Statistic (See note b.)
Chlorine, Total Residual (50060)	mg/L	Year-round	Daily	Grab	1. Daily Maximum 2. Monthly Average
Temperature (00010)	°C	Year-round	Daily	Continuous	1. Daily Maximum 2. Maximum 7-Day Average 3. Monthly Average
Thermal Discharge (00015)	Million kcal/day	July 1 – Sept 30	Daily	Calculation (See note d.)	1. Daily Maximum 2. Monthly Average
<i>E. coli</i> (51040)	#/100 mL	Year-round	3/week	Grab	1. Daily Maximum 2. Monthly Geometric Mean
Mercury, Total Recoverable (MMP) (71901) (See notes e and f.)	mg/L	Year 1 and 5 of the permit term	Quarterly	24-hour composite	Quarterly Maximum
Total Ammonia (as N) (00610)	mg/L	Year-round	<del>1/week</del> <u>1/month</u>	24-hour composite	1. Daily Maximum 2. Monthly Average
Hardness (00900)	mg/L	Year-round	1/month	24-hour composite	Monthly Maximum
Chlorine Used (81400)	lb/day	Year-round	Daily	Scale reading	Monthly Average
Dissolved Oxygen (00300)	mg/L	Third year of permit cycle [2024]	Quarterly	Grab	Quarterly Minimum
Total Kjeldahl Nitrogen (TKN) (00625)	mg/L	Third year of permit cycle [2024]	Quarterly	Grab	Quarterly Maximum
Nitrate Plus Nitrite (NO <sub>3</sub> +NO <sub>2</sub> ) Nitrogen (00630)	mg/L	Third year of permit cycle [2024]	Quarterly	Grab	Quarterly Maximum
Oil and Grease (00556)	mg/L	Third year of permit cycle [2024]	Quarterly	Grab	Quarterly Maximum
Total Phosphorus (00665)	mg/L	Third year of permit cycle [2024]	Quarterly	Grab	Quarterly Maximum

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a.)	Report Statistic (See note b.)
Total Dissolved Solids (70295)	mg/L	Third year of permit cycle [2024]	Quarterly	Grab	Quarterly Maximum

Notes:

- a. In the event of equipment failure or loss, the permittee must notify DEQ and deploy new equipment to minimize interruption of data collection. If new equipment cannot be immediately deployed, the permittee must perform grab measurements. If the failure or loss is for continuous temperature monitoring equipment, the permittee must perform grab measurements daily between 2 PM and 4 PM until continuous monitoring equipment is redeployed.
- b. When submitting DMRs electronically, all data used to determine summary statistics must be submitted in a DEQ-approved format as a spreadsheet via electronic reporting unless otherwise directed by DEQ.
- c. Percent Removal must be calculated on a monthly basis using the following formula:

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

Where:

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

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

- d. The daily thermal load (TL) discharged must be calculated using the daily average effluent temperature and the corresponding daily average effluent flow using the formula below.

The monthly average is then calculated from the daily TLs:

The daily TL is calculated as follows:

$$TL = 3.78 * Q_e * T_e$$

Where:

TL = Daily Thermal Load (million kcal/day)

Q<sub>e</sub> = Daily Average Effluent flow (MGD)

T<sub>e</sub> = Daily Average Effluent temperature (°C)

- e. First and last 4 quarters of the permit term. Total of 8 samples.
- f. The quantitation limit for mercury must be 0.001 µg/L or less.
- g. 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/sToxiccyanide.pdf>

## Change in Schedule C: Compliance Schedule

*Deletion indicated in red strikethrough.*

### SCHEDULE C: COMPLIANCE SCHEDULE

#### 1. Compliance Schedule to Meet Final Effluent Limitations

The permittee must comply with the following schedule:

Compliance Date:	Requirement:
By 12/1/2022	The permittee must submit to DEQ a status report on the Outfall diffuser modification, as well as total residual chlorine and ammonia compliance projects.
By 6/1/2023	The permittee must submit an Engineering Predesign Report for Outfall 001 diffuser modification for review and approval by DEQ. The diffuser design must target minimum critical dilution values of 112 (chronic aquatic life criteria conditions*), 20 (acute aquatic life criteria conditions*) and 134 (non-carcinogen human health criteria conditions*). The engineering report needs to document outfall hydraulic performance, construction methods, permitting requirements, cost estimate and schedule. (*Conditions as specified in DEQ's Regulatory Mixing Zone Internal Management Directive, June 2013, Part Two)
By 12/1/2023	The permittee must submit to DEQ a status report on work on the outfall diffuser modifications, as well as total residual chlorine and ammonia compliance projects. The permittee must submit for review and approval a plan to meet ammonia water quality criteria. The plan must identify key activities/ milestones, include a preliminary design, and must also include an estimated timeline to achieve the milestones.
By 9/1/2024	The permittee must complete Outfall 001 diffuser modification installation and the modifications must be in operation.
By 10/1/2024	The permittee must conduct a Level 3 mixing zone study to demonstrate the Outfall modifications achieved the predicted dilutions.
By 12/1/2024	The permittee must submit report detailing the modification to Outfall 001 diffuser and an addendum to the 2019 mixing zone study with the new demonstrated dilutions.
By 3/31/2025	The permittee must achieve compliance with the final effluent limitations for <del>ammonia and</del> chlorine in Schedule A of this permit.