


Water Environment Services Tri-City Water Resources Recovery Facility NPDES Permit Renewal Permit No. 101168

Response to Public Comment

May 1, 2024



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Introduction

This Response to Public Comments memorandum addresses the written comments received during the Public Notice for the renewal of the National Pollutant Discharge Elimination System (NPDES) permit for the Tri-City Water Resources Recovery Facility (WRRF) owned and operated by Water Environment Services of Clackamas County. The facility discharges treated wastewater to the Willamette River.

A Public Notice announcing a virtual public hearing on the proposed permit renewal was issued by the Oregon Department of Environmental Quality (ODEQ) on March 12, 2024. The public notice also requested submittal of written comments on the proposed permit. A virtual public hearing was held on April 11, 2024 during which no verbal comments were received from the public. The written comment period closed on April 22, 2024.

At the conclusion of the written comment period, one set of written comments were received from Water Environment Services (WES) (Table 1). All comments received were related to the permit or permit fact sheet. All written comments received have been reviewed by DEQ and are addressed in this document.

Table 1: Commenters on the Tri-City Water Resources Recovery Facility NPDES Permit Renewal

Commenter #	Commenter	Type	Acronym
1	Water Environment Services - Comment Letter dated April 22, 2024	Written	WES

Comments received from WES were presented in a tabular format. Each comment is presented below in a similar tabular format followed by DEQ’s response.

Comments from: Water Environment Services

WES Comment No. 1:

Document	Parameter or Document	Issue	Request
Schedule B, Table B1, pg. 12 of 52 Schedule D, D.7.f.i. Evaluation of Causes and Exceedances, pg. 35 of 52	WET Testing	Note “d” in Table B1 states that WET tests and effluent toxics characterization testing must be collected on the same day. Due to resource constraints and QA/QC issues, it may not be possible to conduct WET testing and effluent toxics characterization monitoring on the same day. Concurrent effluent toxics characterization testing is helpful in assessing sources	<u>Note d in Table B1 should be modified as follows:</u> d. Conduct WET testing concurrent with Effluent Toxics Characterization Monitoring beginning in the second quarter of 2026 after Outfall 002 begins discharging in February 2026 until at least 4 sets of samples have been collected. WET tests and toxics characterization testing <u>should</u> must be collected on the same day. WET tests must include samples from wet and dry season discharges.

Document	Parameter or Document	Issue	Request
		of potential toxicity. WET testing concurrent with effluent toxics characterization testing can be required as part of the monitoring in Schedule D.7.f.i if there is a failure of the initial WET test.	<u>Additionally, Schedule D.7.f.i. should be modified as follows:</u> If any test exhibits toxicity as described in conditions 7.b.v. and 7.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. <u>Effluent Toxics Characterization Testing must be conducted on the same day.</u>

DEQ Response: DEQ does not concur with the recommended edits to Table B1. DEQ modified this note on Table B1 to provide additional clarification on how WET testing will be conducted in conjunction with the Tier 1 Toxics Characterization monitoring.

Note “d” in Table B1 now states: *Conduct WET testing concurrent with Effluent Toxics Characterization Monitoring beginning in the second quarter of 2026 after Outfall 002 begins discharging in February 2026 until at least 4 sets of samples have been collected. WET test and toxics characterization sampling must be collected on the same day. WET tests must include samples from wet and dry season discharges.*

DEQ concurs with the recommended edits to Schedule D.7.f.i. DEQ added the recommended text to this section of the permit.

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

WES Comment No. 2:

Document	Parameter or Document	Issue	Request
Schedule B, Table B3, pg. 19 of 52	Total Ammonia (as N) (00610) (Outfall 001 Only)	Total Ammonia monitoring is required at both Outfalls 001 and 002. The effluent monitoring location at the Tri-City WRRF is upstream of the outfall diversion and is representative of the discharge from both outfalls.	Include clarifying <u>note</u> in Table B3: When both Outfalls 001 and 002 are in use, effluent monitoring at the Tri-City WRRF is representative of discharge conditions at both outfalls.

DEQ Response: DEQ concurs that a note needs to be added to Table B3 to clarify that the effluent monitoring conducted at the Tri-City WRRF is representative of discharge conditions at both Outfalls 001 and 002. DEQ revised Note “a” of Table B3 to include the following text: *When either Outfalls 001 or 002 are in use, effluent monitoring at the Tri-City WRRF is representative of the effluent quality and discharge conditions at each outfall.*

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

WES Comment No. 3:

Document	Parameter or Document	Issue	Request
Schedule B, Table B3, pg. 19 of 52	UV Dose	The permit requires effluent monitoring for UV dose; however, the UV process is upstream of the effluent monitoring location.	Include clarifying <u>note</u> in Table B3: The UV dose is monitored at the dosing point in the UV disinfection process, which is upstream of the established effluent monitoring location.

DEQ Response: DEQ concurs that a note needs to be added to Table B3 to clarify the location of UV dose monitoring. DEQ revised Table B3 to include a new Note “j” with the following text recommended by the comment: *The UV dose is monitored at the dosing point in the UV disinfection process, which is upstream of the established effluent monitoring location.*

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

WES Comment No. 4:

Document	Parameter or Document	Issue	Request
Schedule B, Table B3, Note g., pg. 20 of 52	Temperature (00010)	Note g in the permit says... The permittee may report the hourly average maximum temperature if continuous monitoring of temperature is performed at less than hourly intervals.	Change Note g to say: The permittee may report average maximum temperature if continuous monitoring of temperature is performed more frequently than hourly intervals (i.e., multiple measurements taken during an hour).

DEQ Response: DEQ concurs with the recommended edit. DEQ revised Note “g” in Table B3 with the recommended bold text shown in the comment above.

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

WES Comment No. 5:

Document	Parameter or Document	Issue	Request
Schedule B, 5. Effluent Toxics Characterization Monitoring (Tier 1 Monitoring), Table B5, pg. 22 of 52, and 10. Pretreatment Monitoring, Table B13 and Note b., Pollutant column, pg. 29 of 5	Cyanide (Total and Free)	Free cyanide is not a pollutant of concern for pretreatment purposes. Total cyanide though has federal pretreatment standards that can be applied to industrial discharges. In MWMC and CWS NPDES permits, total cyanide monitoring is required under their pretreatment programs only. Free cyanide monitoring is appropriate for effluent toxics characterization and comparison to water quality criteria.	Add Free Cyanide as a pollutant in Table B5. Change the pollutant ‘Cyanide (Total and Free)’ in Table B13 to Total Cyanide and change Note b to Total Cyanide

DEQ Response: DEQ concurs with the recommended edits to Table B5 (Metals and Hardness) and Table B13 (Pretreatment monitoring) as presented in the comment. DEQ revised Table B5 to include sampling for free cyanide. Clarifying notes regarding sampling for free cyanide were also added to the table to be consistent with DEQ’s current NPDES permit template. One of these notes specify the use of grab sampling for cyanide. The title for Table B5 was revised to Metals, Cyanide, and Hardness.

DEQ also revised Table 13 to remove sampling for free cyanide. Requirements to sample for total cyanide remain in Table B13.

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

WES Comment No. 6:

Document	Parameter or Document	Issue	Request
Schedule C, 1. Compliance Schedule to Meet Final Effluent Limits, Table C1, Optimization Study, pg. 30 of 52	Optimization Progress Report	The Permit says to submit the progress report within 16 months of permit effective date.	Noting that WES anticipates the schedule for submitting the Optimization Progress Report will likely be in early 2025 - well before the "16 months of permit effective date" in the compliance schedule

DEQ Response: DEQ concurs that the Optimization Progress Report should be submitted in early 2025. DEQ revised the compliance schedule to require the submittal of the progress report to March 31, 2025. This will be 10 months from the expected permit effective date of June 1, 2024. No other changes were made to the compliance schedule for ammonia.

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

WES Comment No. 7:

Document	Parameter or Document	Issue	Request
<p>Fact Sheet, Table 3-10, pg. 25 of 63, and Table 3-11, pg. 27 of 63</p>	<p>Peak Flow Dilutions in Outfall 001 and Outfall 002 Mixing Zone Dilution Summaries</p>	<p>Peak flow dilutions: the dilution values for peak wet season flows in Tables 3-10 and 3- 11 are incorrect. These values are transposed and should be corrected.</p>	<p>Revise Tables 3-10 and 3-11 as follows:</p> <ul style="list-style-type: none"> • The flows and dilutions specified in Table 3-10 for Outfall 001 are representative of Outfall 002. • The flows and dilutions specified in Table 3-11 for Outfall 002 are representative of Outfall 001. <p>Table 3-10 from the 2021 Pre-Design Engineering Report for Tri-City WRRF Willamette River Outfall Project, which shows the dilutions for the peak wet season flow conditions, is provided Attachment A.</p>

DEQ Response: DEQ reviewed the information submitted and the 2021 Pre-Design Engineering Report for the Tri-City WRRF Willamette River Outfall Project and agrees that the peak flow dilution values in Tables 3-10 and 3-11 are incorrect and have been transposed. The dilution values listed in Table 3-10 for Outfall 001 are actually for Outfall 002 and vice-versa for the values listed on Table 3-11 for Outfall 002. DEQ corrected the dilutions values on both tables. DEQ also revised Note “b” in Table 3-11 to properly reference the source of the dilution values from the 2021 Pre-Design Engineering Report for the Tri-City WRRF Willamette River Outfall Project. The first column also had labeled both the ZID and MZ dilution as “aquatic life, acute”. The table has been updated to correctly reflect the MZ dilution as “aquatic life, chronic”.

The comment included an attachment which is reproduced as Attachment A in this memorandum.

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

WES Comment No. 8:

Document	Parameter or Document	Issue	Request
Fact Sheet, 3.3.8.2 Total Residual Chlorine, 3rd paragraph, pg. 40 of 63	Total Residual Chlorine	Fact Sheet says... Proposed limits for Outfall 001, and Outfall 001 and 002 combined are listed in the following table. Whereas Table 3-20 appropriately only refers to limits for Outfall 001.	Change to: Proposed limits for Outfall 001 are listed in the following table.

DEQ Response: DEQ agrees with the recommended edit to the Fact Sheet text. DEQ revised the text on Page 40 of the Permit Fact Sheet just before Table 3-20 as follows:

Proposed limits for Outfall 001, ~~and Outfall 001 and 002 combined~~ are listed in the following table:

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

ATTACHMENT A: COPY OF ATTACHMENT A TO WATER ENVIRONMENT SERVICES COMMENT LETTER NO. 1

(ATTACHMENT SUPPORTS WES COMMENT NO. 7)

Attachment A

Table 3-10 from the 2021 Pre-Design Engineering Report for Tri-City WRRF Willamette River Outfall Project

Table 3-10. Outfall Dilution Modeling Results for Peak Wet Season Discharge at 25-year Flood via Outfall 001 and 18-port Diffuser with 20-inch Risers and Check Valve Ports – Projected Buildout Effluent Flows

WRRF Outfall	Buildout Effluent Flow Condition	Effluent Flow per Outfall (mgd)	Acute DF at ZID (30 ft)*	Chronic DF at RMZ (300 ft)*	Outfall Plume Width at RMZ (ft)	Diffuser Plume DF at Outfall 001	Diffuser Plume Width at Outfall 001 (ft)	Predicted DF at Clackamas River Confluence	Plume Width at Clackamas River Confluence (ft)	RMZ-IMD Model Conditions
001 (48-inch Check Valve)	Max Day-Peak Wet Event	54.0 (13.5 mgd via check valve & 40.5 mgd via 2-42-inch ports)	11 (15 & 8)	--	55 (<3% river cross-section)	--	--	594 (1144 & 410)	120 (6% river cross section)	Acute Aquatic Life Criteria DFs
001 (two 42-inch ports)	Max Day-Peak Wet Event			--		--	Acute Aquatic Life Criteria DFs			
18-port Diffuser	Max Day-Peak Wet Event	84.0	231	--	162 (15% river cross-section)	845	210 (12% river cross section)	1005	250 (13% river cross section)	Acute Aquatic Life Criteria DFs
001 (48-inch Check Valve)	Max 4-day-Peak Wet Event	18.0 (4.5 mgd via check valve & 13.5 mgd via 2-42-inch ports)	--	25 (28 & 24)	11 (6 & 14) (<1% river cross-section)	--	--	331 (165 & 387)	90 (<5% river cross section)	Chronic 4-day Aquatic Life Criteria DFs
001 (two 42-inch ports)	Max 4-day-Peak Wet Event		--			--	Chronic 4-day Aquatic Life Criteria DFs			
18-port Diffuser	Max 4-day-Peak Wet Event	68.0	--	804	162 (15% river cross-section)	1043	210 (12% river cross section)	1220	245 (13% river cross section)	Chronic 4-day Aquatic Life Criteria DFs

*The acute dilutions are centerline dilutions, and the chronic dilutions are flux-average dilutions (Per DEQ's RMZ-IMD).