

Willamette Basin Mercury TMDL Revision Comments

This document includes public comments received during the Willamette Basin Mercury TMDL public comment period that resulted in revisions to the EPA 2019 Willamette Basin Mercury TMDL. All comments were provided by the Oregon Department of Environmental Quality.

Organization Name *Oregon Department of Environmental Quality*

Letter ID *L26*

Comment ID L26-3

Comment Category DEQ's authority/responsibility to implement

Comment Text

The cover/signature page of EPA's TMDL states that, following incorporation of any revisions arising from public comment, EPA "intends to transmit this TMDL to the State of Oregon for incorporation into its current water quality management plan." DEQ maintains an overall water quality management plan, per CWA Section 303(d) and 40 CFR Section 130.7(d), of priority ranking of impaired waters needing a TMDL. However, per OAR 340-42, DEQ develops Water Quality Management Plans specific to each TMDL that DEQ develops that provide a framework for TMDL implementation and detailed strategies to achieve allocations, including sector or source-specific implementation plans. The process is not the same for TMDLs developed by EPA. Moreover, the WQMP was developed based on the TMDL written by DEQ. DEQ will work with EPA for incorporation of EPA's TMDL for Mercury in the Willamette Basin, Oregon into Oregon's water quality management plan under Section 303(e) of the Clean Water Act.

Response Text

EPA thanks ODEQ for noting the difference between the State's overall water quality management plan and the WQMP specific to the Willamette Mercury TMDL and has revised the quoted sentence to clarify this. We look forward to working with you to translate the provisions in this TMDL to your waterbody specific WQMP.

Comment ID L26-4

Comment Category General Comments

Comment Text

EPA's November 29, 2019 letter disapproved DEQ's TMDL, and EPA's December 30, 2019 TMDL includes DEQ's TMDL and Appendix A and specifically incorporates most sections by reference. DEQ found some discrepancies, as noted specifically below. The current combined format contains conflicts, lacks clarity as to which document is to be followed and requires the public to flip between documents. This makes it confusing for those subject to allocations to attempt to identify the basis of the allocations, and in some cases, the application of the allocations themselves. These conflicts should be resolved. The TMDL would benefit from being presented as a comprehensive document. These changes would provide clarity to the public regarding the regulatory requirements.

Response Text

EPA appreciates your comment and made appropriate changes to the revised final TMDL. Specific discrepancies are discussed in individual comments and responses. EPA agrees that it would be less

confusing to the reader if there were a single, unified document; however, that may not be feasible, as certain portions of ODEQ's TMDL, as required under state regulations (e.g., the Water Quality Management Plan) are not requirements of the EPA TMDL but remain ODEQ's responsibility.

Comment ID L26-6

Comment Category TMDL Implementation

Comment Text

4. Source Categories: Section 7, Tables 2 and 3, and Appendix C of EPA's TMDL present allocations using different category names, comprised of different components and with additional categories compared to DEQ's TMDL. As a result, it is unclear how EPA's sectors and allocations match up with DEQ's sectors and allocations which could affect DMA implementation. Most sections of DEQ's TMDL are incorporated by reference into EPA's TMDL, so clarification is needed on which EPA sector labels compare with DEQ categories. Specifically: a. EPA's TMDL contains a "Groundwater (agriculture, forest shrub, developed, other)" category, which was not included as a separate DEQ source category. Rather DEQ captured groundwater under "General Nonpoint Source and Background." Is EPA's 88% reduction for "Groundwater (agriculture, forest shrub, developed, other)" in addition to the 88% and 97% subbasin-specific "Agriculture, forest shrub, developed, other (runoff and sediment)" reductions that includes the same land managers? b. EPA's footnote 1 indicates that water impoundments and conveyances entities are included in both the "Groundwater (agriculture, forest shrub, developed, other)" and "Agriculture, forest shrub, developed, other (runoff and sediment)" categories. Whereas, DEQ captured water impoundments and conveyances entities under "General Nonpoint Source and Background." c. Does "Agriculture, forest shrub, developed, other (runoff and sediment)" align with DEQ's "General Nonpoint Source" category, excluding groundwater and background? If so, where is background captured? d. EPA's TMDL contains "Atmospheric deposition direct to water" as a distinct category. In contrast, DEQ captured atmospheric deposition direct to streams in the "General Nonpoint Source and Background" category. In addition, DEQ assigned an allocation to Atmospheric Deposition. DEQ's footnote 3 clarifies that this allocation applies to precipitation deposited mercury that generates runoff. e. EPA's TMDL assigned separate allocations to "NPDES Permitted POTW Wastewater · Discharges" and "NPDES Permitted Industrial Wastewater Discharges," yet DEQ's basin-wide aggregate allocation applies to all NPDES Permitted Wastewater Discharges.

Response Text

EPA's TMDL includes the same sources as ODEQ's TMDL, however, some allocation categories were modified. EPA made changes to EPA's TMDL so that both TMDLs and DEQ's WQMP align to clarify the differences.

Responses to sub-questions/comments A to E follow.

A. ODEQ's TMDL included a general non-point source category that included mercury associated with surface runoff, sediment, and groundwater. Given that land managers have different opportunities to control surface runoff and sediment compared to groundwater, the latter source was disaggregated for EPA's TMDL. Therefore, reductions are assigned for groundwater and reductions are assigned to land managers for surface runoff and sediment-based transport of mercury under the category titled "Agriculture, forest, shrub, developed and other (runoff and sediment)" in Table 3 of EPA's TMDL.

B. The footnote in Table 3 of EPA's TMDL is not accurate and will be updated in the revised final TMDL.

The “other” category includes runoff, sediment, and groundwater from the following land uses: barren, grassland/herbaceous, pasture/hay, wetlands, and open water excluding the river network and lakes explicitly represented in the HSPF watershed model.

C. The “Agriculture, forest, shrub, developed, other (runoff and sediment)” and “Groundwater (agriculture, forest, shrub, developed, other)” categories in EPA’s TMDL align with ODEQ’s “General Nonpoint Sources and Background” category as discussed above in response to A. Background sources of mercury are implicitly represented in these categories. For example, soil mercury concentrations in the watershed are attributed to legacy (background) and current atmospheric deposition processes, as well as sediment erosion, fate and transport.

D. EPA’s TMDL contains a category for “Atmospheric deposition direct to water”, which aligns with the “Atmospheric Deposition” category under non-point sources in ODEQ’s TMDL. Both TMDLs assign explicit allocations to atmospheric deposition direct to water. Atmospheric deposition of mercury that is transported to streams by surface runoff is included in the “Agriculture, forest shrub, developed, other (runoff and sediment)” category in EPA’s TMDL.

E. ODEQ’s TMDL included the allocations for both POTWs and industrial wastewater dischargers in the “NPDES Wastewater Point Source Discharges” category. These are represented in separate categories for EPA’s TMDL, which include “NPDES Permitted POTW Wastewater Discharges” and “NPDES Permitted Industrial Wastewater Discharges” because different reductions were allocated for these sources in some catchments, such as the Middle Willamette.

Comment ID L26-9

Comment Category Allocations

Comment Text

7. Section 7.2.2 of EPA's TMDL assigns an allocation of 0% reduction for minor POTW and minor industrial permitted discharges. This conflicts with DEQ's TMDL in that minor industrial facilities may conduct activities with the potential to increase mercury in discharges. Because the TMDL data set includes effluent data for only about 42% of industrial facilities and flow data for even fewer, DEQ captured minor industrial facilities in the basin-wide NPDES Permitted Wastewater Discharges wasteload allocation (10% reduction), conditional to review of effluent and flow monitoring. DEQ disagrees with assigning minor industrial facilities a 0% reduction, because they have the potential to increase mercury in their discharge, and some of these sources may require mercury reductions based on further evaluations.

Response Text

ODEQ’s comments clarified a misunderstanding in EPA’s review of the proposed reductions to mercury discharges from minor POTWs and minor industrial wastewater permits in ODEQ’s 2019 TMDL and provided useful information about the limited data on these types of discharges and the potential for future expansion. In light of this information, EPA is deleting section 7.2.2 and EPA’s TMDL reflects ODEQ’s inclusion of the minor POTWs and minor industrial dischargers within the aggregate reduction WLAs for POTWs and industrial dischargers in each subbasin. This approach is reasonable given the very small cumulative contribution of these sources to the overall load (0.07%: p.48, Appendix A). If Minor facilities in the WRB increase in size to become Major facilities, the permit requirements would be expected to change to include TMDL implementation and monitoring requirements as provided in

ODEQ's 2019 TMDL. To address the possibility that some of these sources may increase their mercury discharges over time, the EPA TMDL includes a 1% Reserve Capacity, consistent with the ODEQ 2019 TMDL, which may be granted to dischargers at ODEQ's discretion.

Comment ID L26-15

Comment Category General Comments

Comment Text

Section 7.2.4 of EPA's TMDL references "page 62 of Appendix A in DEQ's TMDL" for specifics on "the suction dredging industry... locations" to which a zero WLA applies. However, Appendix A of DEQ's TMDL is the Tetra Tech TMDL Technical Support Document, which does not present DEQ's conclusions and does not provide information on suction mining locations on page 62. Suction mining locations in the tributaries to Dorena Reservoir are provided on page 51 of DEQ's TMDL (not in any appendix). Please correct the reference.

Response Text

Section 7.2.4 of EPA's TMDL refers to "suction dredge mining at locations described in the ODEQ's 2019 TMDL (p. 62, Appendix A..." This is intended to refer to Appendix A to the EPA TMDL, which consists of the ODEQ TMDL document. The list of locations is given on page 62 of the main body of ODEQ's 2019 TMDL. EPA revised the TMDL to clarify this point.

Comment ID L26-16

Comment Category General Comments

Comment Text

Section 10 of EPA's TMDL refers to DEQ's TMDL and WQMP and finds DEQ's approach to demonstrating reasonable assurance to be technically feasible and legally sufficient. However, EPA's text contains inaccuracies, which should be corrected.

A. The text incorrectly refers to Section 14 of DEQ's TMDL as including elements of the WQMP, which are in Section 13.

b. The text misstates DEQ's examples of proven techniques for reducing mercury from point sources.

i. DEQ does not rely on monitoring permitted effluent discharge as a mercury reduction technique. Rather, monitoring is used to determine the need for minimization measures. The application of minimization measures reduce mercury.

ii. DEQ does not state that application of advanced wastewater treatment accomplishes greater biosolids removal. Rather, DEQ provided an example of measured reductions of mercury in biosolids at one facility. This demonstrates that minimization measures (specifically the dental amalgam removal program) have resulted in less mercury entering the wastewater treatment facility. Importantly, this specific mercury minimization program has been implemented for more than a decade and most dental facilities in the Willamette Basin have now been addressed. Additional reductions from that source cannot be relied on to accomplish greater reductions from POTWs.

Response Text

EPA appreciates your comments and will:

- Change the reference of Section 14 to Section 13; and
- Clarify EPA's discussion of ODEQ's examples of proven techniques for reducing mercury from point sources.

Comment ID L26-17

Comment Category General Comments

Comment Text

Table 3 on page 13 of EPA's TMDL indicates that reductions are "NA" for Non-Permitted Urban Stormwater in the McKenzie subbasin. "NA" is not used for any other category or subbasin and no explanation is offered as text or notes. This designation is not reflected for the McKenzie subbasin in the unnumbered table on page 26 summarizing allocation revisions for seven subbasins. Please clarify the designation, provide a rationale for its application in only one source category in one subbasin and align the information presented in multiple tables. DEQ looks forward to EPA's response to comments and completion of the Willamette Basin Mercury TMDL revision process.

Response Text

The 75% reduction for non-permitted urban stormwater was called for in ODEQ's 2019 TMDL. EPA agreed with this reduction as reflected in Appendix C, Allocation Summary for the McKenzie – 17090004, p. 26 of EPA's TMDL. The "NA" reduction in Table 3 of EPA's TMDL was listed in error. As a conforming change, EPA replaces the "NA" in Table 3 in EPA's final TMDL and assigns a 75% reduction to non-permitted urban stormwater in the McKenzie subbasin.