

Willamette Basin Mercury TMDL

Advisory Committee Meeting Minutes

Tuesday, Dec. 5, 2018, 10 a.m. to 3 p.m.

State Library of Oregon

250 Winter Street, NE, Room 102/103

Salem Oregon 97302



State of Oregon
Department of
Environmental
Quality

- 9:45** Gather and Settle
- 10:00** Introductions
Priscilla Woolverton, DEQ
- 10:10** Review Advisory Committee charter, roles, responsibilities and timeline
Andrea Matzke, DEQ
- OFIC representative voiced concern about limited role of advisory committee in guiding modeling approach; wanted clarification on EPA's plan for involving public in modeling process.
 - EPA stated that committee members will have an opportunity to ask questions and provide comments during the January 18, 2017 meeting, which will focus on the models being used. The modeling approach has already been established, and is similar to the approach employed for the 2006 TMDL with the addition of considerably more data. The public will be able to provide comment during DEQ's public comment process tentatively scheduled for fall of 2018.
 - ACWA representative asked for clarification about the goal that DEQ has for the advisory committee process, and if an interim goal had been defined since meeting the water quality standard for fish tissue seems to be a reach at this stage.
 - DEQ stated that the TMDL must be developed to meet the water quality standard. The fish consumption standard will not be revised as part of this process. The primary goal for engaging the advisory committee is to identify strategies and actions that should be considered in the Water Quality Management Plan in order to address mercury loading to watersheds.
 - Association of NW Steelheaders noted the lack of direct representation from Tribal Nations on the advisory committee and asked if separate tribal consultation was occurring and if so how it could be incorporated into our considerations
 - Note: Dianne Barton with Columbia River Inter-Tribal Fish Commission was in attendance via conference line.

TMDL Program

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- EPA and DEQ invited Tribal Nations to define how they wanted to participate in the process. EPA, DEQ and Tribal Nations continue to be in communication about how best to keep Tribes informed and engaged. Updates can be given at future meetings.

10:30 Overview of TMDL Process and 2006 Mercury TMDL
Paula Calvert, DEQ

- Will this TMDL include load allocations for nonpoint sources?
 - The type and amount of data we have available to include in our analyses will determine at what scale load allocations will be developed, e.g. for nonpoint sources as a combined category versus sector categories etc.
- Request from ACWA member to revise slide to better describe when a municipality may need a NPDES permit and/ or a TMDL plan.
- How will this TMDL impact implementation in the agricultural sector?
 - Oregon Dept. of Agriculture will continue to implement TMDLs through the established process of developing Agricultural Water Quality Area Plans with Local Advisory Committees.
 - There may or may not be load allocations developed for individual agricultural water quality management areas, depending on the data available.
- Did the State meet the water quality standard identified in the 2006 TMDL?
 - A lag time is expected based on fish physiology and life cycle. Mercury minimization plans have been developed and are expected to contribute to reduced loading.

11-11:50 Overview of Mercury in the Environment
Chris Eckley, EPA

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12:50-2:30 Overview of Mercury in the Environment, cont.
Chris Eckley, EPA

- Association of NW Steelheaders noted that there are long term studies of trans Pacific deposition of mercury in Oregon and recommended UW Prof. Jaffe be invited to share his research with the committee.

- Slide 18 seems to indicate there may be a linear relationship between bioavailability of mercury and microbial activity- is that correct?
 - No; relationship is not linear. Slide illustration is a conceptual example.
- What are the limiting nutrients for microbes that methylate mercury in the Willamette Basin?
 - Not sure; could be carbon or sulfate limited. Other drivers could include water temperature and dissolved oxygen.
- How do plants uptake mercury?
 - Primarily through atmospheric pathway; not much uptake through root system. Litter fall is also a source of mercury.
- Not a lot is known about mercury cycling in agriculture, except for rice fields in California.
- Studies about forestry related management indicate that the main driver of mercury from the soil to the atmosphere is photoreduction.
- Other sources of mercury in the State include limestone mining in eastern Oregon. Cement production is a known source of mercury in Oregon. ODA representative recommended EPA and DEQ reference the 1971 USGS publication titled, “Quicksilver Deposits in Oregon.”
- What do you do when there is a disconnect between Total Hg and MeHg in fish, i.e. the data shared today seem to suggest that loading of inorganic mercury to a system may have little impact on MeHg levels in fish tissue compared to site-specific conditions.
 - EPA will provide additional information at future meeting that better shows relationship between MeHg in sediment and THg in sediment, and porewater MeHg and porewater THg.
- Oregon Dept. of Forestry representative expressed concern about connecting on-the-ground actions to methylation processes driving MeHg levels in fish. Important for EPA and DEQ to make this relationship clear to DMAs responsible for implementing TMDL. What will DMAs have to monitor to determine success towards implementing TMDL?
 - DEQ stated that it is unlikely DMAs would be required to collect fish tissue samples, i.e. allocations probably won’t be based on fish tissue but on a surrogate measure.
- Agricultural representative asked if return flows could lead to an increase in MeHg.
 - Hg can be methylated in parts of the watershed where there are saturated soils, but not a lot of methylation in groundwater.

- DEQ stated that the TMDL will be developed to meet both the tissue-based MeHg criterion and the water column-based total mercury criterion for the protection of aquatic life.
- ACWA member and others asked for an overview of the Willamette Basin-specific data that was submitted to DEQ to be shared with the advisory committee. Some members would like to have raw data made available to them.
 - DEQ will provide this in a future meeting.

2:35

Next Steps

Paula Calvert, DEQ

- Meeting minutes from this meeting will be shared with the committee prior to the next meeting. All materials, including today's presentations, will be made available on DEQ's Mercury Advisory Committee webpage:
<http://www.oregon.gov/deq/wq/tmdls/Pages/willhgtmdlac2018.aspx>
- Next meeting is scheduled for January 18, 2018 at the Wells Fargo Building in Eugene, Oregon.

3:00

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Alternative formats

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