State of Oregon
Department of Environmental Quality Memorandum

To: Willamette Basin Mercury TMDL File **Date:** November 22, 2019

From: Richard Whitman, Director

Subject: Willamette Basin Mercury TMDL Order

On November 22, 2019, the revised Willamette Basin Mercury Total Maximum Daily Load (TMDL) was issued as an order by the Oregon Department of Environmental Quality (DEQ). This TMDL document was developed under §303(d) of the Clean Water Act (CWA) and is being submitted to the U.S. Environmental Protection Agency (USEPA) for review and approval.

DEQ issued the first Willamette Basin Mercury TMDL in 2006. The updated TMDL builds upon the existing TMDL modeling analysis and made substantial improvements. The Willamette Basin encompasses an area of 11,478 square miles, includes 12 HUC8 subbasins, and is the 13th largest river in the lower 48 states based on steam flow.

Table 1: HUC8 codes and corresponding watershed names in the Willamette Basin.

HUC8 Code	Watershed name
17090001	Middle Fork Willamette River
17090002	Coast Fork Willamette River
17090003	Upper Willamette River
17090004	McKenzie River
17090005	North Santiam River
17090006	South Santiam River
17090007	Middle Willamette River
17090008	Yamhill River
17090009	Molalla-Pudding River
17090010	Tualatin River
17090011	Clackamas River
17090012	Lower Willamette River

Several factors led to the revision of the TMDL. In 2011, Oregon adopted a new human health criterion based on methylmercury in fish tissue that was more stringent than the target used in the previous 2006 TMDL (0.3 mg/kg). The 2011 methylmercury criterion of 0.040 mg/kg is based on a revised fish consumption rate of 175 g/day (previously 17.5 g/day).

In addition, Northwest Environmental Advocates filed a lawsuit in 2012 objecting to EPA's approval of the 2006 mercury TMDL. The U.S. District Court issued decisions requiring EPA to revise the TMDL by April 11, 2019, while allowing the 2006 TMDL to remain in effect until EPA issued or approved a revised TMDL. In February 2019, the court approved an extension until November 29, 2019. Some requirements from Judge Acosta's findings in the lawsuit included modeling revisions to incorporate mercury-related data collected since the first TMDL and to express the TMDL in units per day.

Table 2 identifies mercury impairments in the Willamette Basin that require a TMDL based on Oregon's 2012 Integrated Report (http://www.deq.state.or.us/wq/assessment/rpt2012/results.asp). Waters for which DEQ addressed mercury impairments in the 2006 TMDL are indicated in the last column. Segments that DEQ listed as Category 5 in the Willamette Basin after the completion of the 2006 TMDL are also covered in this revised TMDL.

Table 2: 303(d) Listings for Mercury in the Willamette Basin

Name	Miles	HUC 8	Assessed	Affected Use	Category	2006 TMDL
Amazon Diversion Canal (A3 Drain)	0 to 3.9	17090003	2010	Fishing	5	X
Amazon Creek Diversion Canal	0 to 6.6	17090003	2010	Fishing	5	X
Yamhill River	0 to 11.2	17090008	2012	Human health	5	
Coast Fork Willamette/ Cottage Grove Reservoir	28.5 to 31.3	17090002	2012	Resident fish and aquatic life; Anadromous fish passage; Drinking water	5	X
Row River/ Dorena Lake	7.3 to 11.9	17090002	2012	Drinking water; Resident fish and aquatic life; Anadromous fish passage	5	X
Clackamas River	0 to 83.2	17090011	2012	Human health	5	
Tualatin River	0 to 80.7	17090010	2012	Human health	5	
Multnomah Channel	0 to 21.7	17090012	2012	Human health	5	
Middle Fork Willamette River	0 to 82.2	17090001	2012	Human health	5	
Coast Fork Willamette River	0 to 38.8	17090002	2012	Human health	5	X
Coast Fork Willamette River	31.3 to 38.8	17090002	2012	Aquatic life; Human health	5	X
McKenzie River	0 to 84.8	17090004	2012	Human health	5	
Dennis Creek	0 to 1.4	17090002	2012	Aquatic life; Human health	5	X
Santiam River	0 to 26.2	17090005	2012	Human health	5	
Willamette River	0 to 186.6	17090003 17090007 17090012	2012	Human health	5	X

Notes: Information from 2012 Integrated Report as of May 2019. Category 5 = Water quality limited, TMDL needed.

The TMDL includes allocations that address both aquatic life and human health mercury impairments by assigning aggregated wasteload allocations to permitted wastewater and stormwater point source dischargers, and aggregated load allocations to 172 designated management agencies and responsible persons with nonpoint source discharges.

The border between Oregon and Washington is the shared waterbody of the Columbia River. The instream water quality target of 0.14 ng/L to meet Oregon's fish tissue methylmercury criterion of 0.040 mg/kg will also meet the state of Washington's fish tissue methylmercury criterion in the Columbia River, downstream of where the Willamette River discharges into it. Development of the TMDL water column concentration target relied on several conservative assumptions. In addition to the margin of safety, DEQ considered the lower flows of the Willamette River entering the Columbia River to conclude that Washington's slightly more stringent methylmercury fish tissue concentration of 0.03 mg/kg will also be met through implementation of the TMDL.

The public comment period for the draft Willamette Basin Mercury TMDL document was open from July 3, 2019 through September 6, 2019, following a three-day extension request by nine organizations. Copies of the draft TMDL documents were available online and by hard copy upon request.

DEQ held two simultaneous public hearings in Portland and Eugene on August 7, 2019 that included an informational session and an opportunity for oral comment. There were 42 attendees in Eugene and 12 attendees in Portland. Eighteen attendees provided oral comment.

DEQ also received 85 written comment submissions from tribes, state agencies, federal agencies, water conveyance districts, professional associations, cities, counties, special districts, environmental groups, suction mining permit holders and public citizens.

DEQ summarized all the comments received, prepared responses, and made revisions to the TMDL based on public comment.

Any questions regarding this TMDL should be directed to Gene Foster, Watershed Management Section Manager, at 503-229-5325.

Issued by:

Richard Whitman, Director

Date: 11/22/19

Attachments: TMDL, WQMP, Response to Comments