

Willamette Basin Multiple Discharger Variance

What is a water quality standards variance?

A water quality standards variance is a tool under Clean Water Act that states may use to improve water quality over time where dischargers cannot meet permit limits based on the water quality standard. A WQS variance is a time-limited designated use and criterion for a specific pollutant. The variance requires dischargers to make water quality improvements, while allowing time and flexibility to do so. The variance also includes accountability measures to assure that progress toward the underlying water quality standard will occur.

In cases where multiple dischargers cannot meet water quality-based effluent limits for the same pollutant and due to the same or similar reasons, DEQ can develop a multiple discharger variance to provide a more efficient variance procedure that will reduce administrative burden from granting multiple variances.

Background

In October 2011, Oregon adopted a methylmercury fish tissue criterion of 0.040 mg/kg, which is among the most stringent in the country. At that time, DEQ and stakeholders understood that meeting the mercury criterion may not be immediately attainable and variances could be an appropriate tool for permitted facilities.

Water quality modeling conducted by an EPA contractor for the Willamette Basin translates the fish tissue criterion to a water column criterion of 0.14 ng/L. DEQ found that less than 1% of the total mercury load in the basin comes from permitted point source dischargers.

Without a variance, DEQ would need to use this water column concentration of 0.14 ng/L as a permit limit for point source dischargers in the Willamette basin. Currently, there is no technology that can reliably meet effluent limits this low. Moreover, for most permittees, additional treatment would result in environmental damage due to increased energy use and associated greenhouse gas emissions and transfer of mercury to biosolids without a measurable decrease in mercury levels. Under this variance, dischargers would be required to do source reduction activities, which over time will lead to mercury reductions without the environmental damage that results from additional treatment.



The need for the variance

The Willamette River Basin has many segments identified as impaired for mercury and a number of fish advisories recommended limited consumption of fish due to high levels of mercury. The discharge limits based on meeting the water column criterion of 0.14 ng/L are not currently achievable. It is important for DEQ to issue permits, which address multiple water quality parameters, in the Willamette Basin while finding a way to reduce mercury loads, and to do so in a transparent manner. A multiple discharger variance is the appropriate tool to ensure incremental progress for mercury load reduction and ensuring transparency to the public.

A water quality standard variance is based on one of seven factors specified in federal regulations. For the MDV, DEQ is relying on the third factor: “Human-caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than leave in place.”

The greatest source of mercury in the basin is from atmospheric deposition, which originates mainly from global sources. While the proposed update of the Willamette Basin Mercury TMDL constitutes the State’s plan to meet the water quality standard, DEQ estimates that it will take decades to implement activities that will meet the water quality standard. The MDV is needed because there is no way for dischargers to meet the underlying standard and will ensure that DEQ has a means for issuing permits if implementation of the TMDL is delayed for any reason. However,



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Water Quality Program

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land and water.*

DEQ has concluded that these dischargers can continue to make progress toward the standard by implementing source reduction activities, such as removing potential mercury sources from the collection system, identifying manufacturing materials containing less mercury and implementing practices that would reduce mercury in stormwater runoff.

DEQ is also proposing amendments to the state's current variance rules to make them consistent with the federal variance regulations promulgated in 2015.

Variance requirements and re-evaluation

Variance requirements will include a permit limit based on mercury levels in each facility's effluent and a mercury minimization plan. DEQ will re-evaluate these mercury levels every five years and establish more stringent limits as a facility makes progress through source reduction. The variance also requires DEQ to re-examine the feasibility of treatment to remove mercury and evaluate progress toward the water quality standard every five years. DEQ will provide a public comment process on this re-evaluation before submitting the final results of a re-evaluation version to EPA.

Variance application and issuance

A MDV is an amendment to water quality standards, which requires EPA approval prior to becoming effective. Once EPA approves the MDV, DEQ can issue permits for eligible facilities under the MDV without additional EPA approval. Eligible point source dischargers can apply for coverage under the variance concurrent with applying for permit renewal. Any discharger wishing for coverage must submit (1) a variance request, (2) all effluent mercury data from the past five years, and (3) a facility-specific mercury minimization plan that covers the period of the variance. The mercury minimization plan must include a specific set of activities depending on whether the discharger is municipal or industrial. Facilities can also incorporate additional mercury reduction activities specific to their operations. Following a public comment period conducted concurrently with public comment on the permit, DEQ will approve the MDV coverage for any facility meeting requirements in the variance.

The public may submit comments on the variance until midnight on Nov. 3, 2019. The public may submit comments to mercury2019@deq.state.or.us or by mail to:

Oregon DEQ
Attn: Aron Borok
700 NE Multnomah St.
Portland, OR 97232

Members of the public may also provide comments on the MDV at a public hearing held as follows:

When: 4 p.m., Tuesday, Oct. 22, 2019

Where: DEQ Headquarters
700 NE Multnomah St.,
Portland, OR 97232
Conference room floor 3

and

DEQ Eugene Office
165 E. 7th Ave. #100
Eugene, OR 97401
Willamette Conference Room

For questions regarding the multiple discharger variance, please contact DEQ Water Quality Specialist, Aron Borok at 503-229-5050 or WQS team lead, Debra Sturdevant at 503-229-6691 or by email at borok.aron@deq.state.or.us, or sturdevant.debra@deq.state.or.us

Alternative formats

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.

Public process and participation