



Oregon Department of Environmental Quality

Temperature Water Quality Standards: Natural Conditions Criterion

Questions and Answers

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On Aug. 8, 2013, EPA disapproved the “natural conditions criterion” provision of Oregon’s temperature water quality standard. EPA’s action was ordered by the U.S. District Court for the District of Oregon on April 10, 2013, based on an earlier ruling in February 2012. Oregon DEQ can no longer use the natural conditions criterion to account for natural temperatures warmer than the biologically based numeric temperature criteria in Oregon’s rivers, lakes and streams. The court similarly sent back to EPA the general statewide narrative natural conditions criterion, which EPA also disapproved on Aug. 8, 2013.

This document describes the status of Oregon’s water quality standards for temperature and natural conditions and DEQ’s plan for implementing the water quality protection program following EPA’s action. If DEQ receives policy direction from the Commission or if other legal action significantly alters DEQ’s ability to move forward, the public will be informed.

What is the temperature “natural conditions criterion?”

The natural conditions criterion in Oregon’s water quality temperature standard (OAR-340-041-0028(8)) accounted for the fact that some Oregon streams have water temperatures that are naturally warmer than the numeric temperature criteria in Oregon. Under the natural conditions criterion, when DEQ determined that a water body under natural conditions, without human impacts, could not meet the numeric criteria in the temperature standard, the natural temperatures became the standard for the waterbody.

There is also a general natural conditions criterion in the statewide narrative water quality standard that applied to other substances or conditions of water. Please read for more information about the general provision below.

How did DEQ apply the criterion?

Prior to the development of a water quality plan called a total maximum daily load – or “TMDL” – DEQ applies the biologically based numeric criteria and other temperature standard provisions in permits, water quality assessments, and other water quality programs. Where river or stream temperatures are not meeting the numeric temperature criteria, DEQ must develop a total maximum daily load for the water body.

When DEQ developed a TMDL under the natural conditions criteria, DEQ collected data and conducted analysis to determine the natural temperatures for the water body. Where this analysis showed that the numeric criteria could not be met due to natural conditions, DEQ based future wastewater discharge permits and nonpoint source targets (for example, stream shade targets) on the natural condition temperatures.

Since EPA’s approval of the natural conditions criterion in 2004, DEQ has used the criterion to develop 15 TMDLs around the state.

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State of Oregon
Department of Environmental Quality

How does this decision affect Oregon's temperature standard?

Following EPA's disapproval of the natural conditions criterion, DEQ can no longer use the criterion in carrying out our water quality programs.

Does that mean the temperature standard no longer exists?

No, the temperature standard still exists. Only the natural conditions criterion portion of the water quality standard has been revoked. DEQ still uses the remainder of the temperature standard, which includes numeric criteria, the human use allowance and the cold water protection criterion, for issuing permits and developing water quality management plans (TMDLs).

How will DEQ determine temperature requirements for permits and water quality plans?

DEQ will use the biologically based numerical values, the human use allowance, the cold water protection criterion and all other remaining provisions of the temperature standard to calculate any applicable allocations or limits.

What about existing water quality permits?

Existing permits are not immediately affected by this decision and remain valid. Permits that contain temperature requirements will be evaluated and revised if necessary when they are renewed.

What happens to permits up for renewal?

Some permits up for renewal will be able to meet limits based on the applicable provisions of the temperature standard without the natural conditions criteria. DEQ intends to move forward and renew these permits.

What will DEQ do with sources that can't meet the temperature standard without the natural conditions provision?

Permitted sources that cannot meet permit limits for temperature at the time of permit renewal may need to explore alternate compliance pathways with DEQ. Sources may be able to use a compliance schedule to allow time to identify and implement a solution. DEQ can also grant variances in situations where it can be demonstrated that the temperature standard is not attainable or feasible to attain. DEQ will encourage water quality trading to offset heat loads in some circumstances.

How will DEQ handle recent water quality management plans (TMDLs) that used the natural conditions criterion? Won't this affect allowable temperature levels in future water quality permits?

DEQ will not incorporate TMDLs based on the natural conditions criterion into wastewater permits unless they result in a permit limit that is more stringent than a limit based on the biologically based numeric temperature criteria and the human use allowance.

Will DEQ revise the TMDLs that used the natural conditions criterion?

On Oct. 4, 2019, the U.S. District Court for the District of Oregon issued a decision requiring DEQ and EPA to replace 15 Oregon temperature TMDLs that were based on the natural conditions criterion and to reissue the temperature TMDLs based on the remaining elements of the temperature standard. DEQ is currently working under a court ordered schedule to reissue the TMDLs.

Presently, nonpoint source temperature reduction targets from existing approved TMDLs continue to apply and will be implemented until the TMDLs are revised. Management practices and stream restoration to reduce temperatures in impaired waters are needed whether the ultimate regulatory goal is natural conditions or the biologically based numeric temperature criteria. Also, the cold water protection criterion has not changed and is still in effect.

Will the natural conditions criterion or something similar be restored at some point in the future?

The water quality standard for temperature must protect beneficial uses of the state's waters, be scientifically based and implementable. The ability to address the natural variability of temperature through DEQ's regulatory programs remains important. DEQ may recommend that the Environmental Quality Commission revise the temperature standard or other regulations to address this function in the future. Any decision to revise water quality standards will be made within a public rulemaking process.

What is the general natural conditions criterion and what does the EPA disapproval mean for that provision?

Oregon's water quality standards also include a general natural conditions criterion as part of the statewide narrative criteria (OAR-[340-041-0007](#)(2)). Versions of this criterion had been in the state's rules since the 1970s. This provision applies to any naturally occurring substance or condition of the water, such as iron, arsenic or other earth metals, nutrients such as nitrogen and phosphorus, dissolved oxygen and others, where the natural conditions do not meet otherwise applicable criteria.

Following EPA's disapproval, DEQ can no longer use the statewide general natural conditions criterion for wastewater permitting, TMDLs, water quality assessment or other federal Clean Water Act actions. Where a permit or TMDL cannot attain numeric criteria for a pollutant due to naturally occurring conditions, DEQ will consider compliance schedules or variances, if appropriate. DEQ may also consider adopting site specific water quality criteria that account for naturally occurring pollutant conditions in future rulemakings.

What can people do to help protect Oregon's rivers, lakes and streams?

The innovative, good work being done by Oregon communities, watershed councils, landowners and others to improve water quality and restore stream habitat and streamside vegetation must continue.

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