

Temperature Standards: Natural Conditions Criterion

Question and Answers

On Aug. 8, 2013, EPA disapproved a key provision of Oregon's temperature standard, the "natural conditions criterion." EPA's action was ordered by the Oregon Federal District Court 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 warmer temperatures in Oregon's rivers, lakes and streams. The court similarly sent back to EPA a general natural conditions narrative criterion, which EPA also disapproved on Aug. 8.

This document describes the current 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. This topic will be discussed with the Environmental Quality Commission on Aug. 21. If DEQ receives policy direction from the commission or if other legal action significantly alters DEQ's ability to move forward as planned, we will inform the public.

What is the temperature "natural conditions criterion?"

The natural conditions criterion in the temperature standard accounts for the fact that some Oregon streams have water temperatures that are naturally warmer than the numeric criteria contained in Oregon's water quality standards. 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 goal for the waterbody.

There is also a general natural conditions criterion that applied to other substances or conditions of water. Please see the Q&A on 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 numeric criteria and other temperature standard provisions in permits, water quality assessments and other water quality programs. Where river or stream temperatures are warmer than the numeric temperature criteria, DEQ must develop 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 at least 14 TMDLs around the state.

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?



State of Oregon
Department of
Environmental
Quality

Water Quality Division Standards Program

811 SW 6th Avenue
Portland, OR 97204
Phone: (503) 229-5696
(800) 452-4011
Fax: (503) 229-6762
Contact: Debra Sturdevant
<http://www.deq.state.or.us/wq/standards/standards.htm>
www.oregon.gov/DEQ

DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.

No, the temperature standard still exists. Only the natural conditions method of calculating acceptable temperature levels has been revoked. DEQ must now use 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. However, where these provisions are not attainable, DEQ will not be able to issue TMDLs and DEQ may need to use alternate compliance pathways for permitted sources.

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 next renewed.

What happens to permits up for renewal?

Some permits up for renewal will be able to meet the remaining applicable provisions of the temperature standard. 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?

Sources that cannot meet permit limits for temperature at the time of permit renewal 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. DEQ will encourage water quality trading to offset heat loads in some circumstances. Permit renewals that will result in needed water quality improvements related to other pollutants, such as toxics or dissolved oxygen, will be prioritized for renewal.

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 recently approved 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 numeric criteria and human use allowance.

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

There is pending litigation on the temperature TMDLs and until that is resolved, the future status of existing TMDLs based on the natural conditions criteria is uncertain. DEQ does not know when this litigation will be resolved.

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

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

The water quality standard for temperature must protect uses of the state's waters, be scientifically based and be administratively workable. 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 critical function in the future since the natural conditions criterion has been removed. However, any decision to revise water quality standards will be made within a rulemaking process, which will be deferred until more is known about pending legal and federal actions.

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. A similar criterion has 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 (i.e. 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 this criterion for wastewater permitting, TMDLs, water quality assessment or other federal Clean Water Act actions. Where a permit or TMDL cannot attain the numeric criteria due to natural conditions, DEQ will consider compliance schedules or variances if appropriate, or may consider adopting site specific water quality criteria.

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.

Alternative formats

Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications & Outreach, Portland, at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696.