

Revising Turbidity Regulations

Background

DEQ has begun the process to revise its water quality standards addressing effects from turbidity. Current criteria were adopted in the 1970s and last revised in 1990. DEQ's first step in this process is to conduct a technical review of the effects of turbidity on relevant beneficial uses of Oregon waters, including aquatic life, recreational uses and drinking water. This analysis will be used to develop proposed rule options. DEQ will solicit input from an external workgroup on proposed rule options. DEQ plans to release a draft rule for public comment in February 2011 and a final rule for adoption by the Environmental Quality Commission in June 2011.

What is turbidity?

Turbidity measures the "cloudiness" of water using the penetration of light through water. The more turbid the water, the less clear it is. Increased levels of turbidity are caused by matter suspended in the water column, such as sediment and dissolved organic matter, and, to a lesser extent, algae and other microscopic organisms.

What is the effect of turbidity on water quality?

Turbidity can have adverse effects on aquatic life and other beneficial uses of water. For example, scientific literature indicates that turbidity reduces growth of algae and other aquatic plants and interferes with the ability to detect and catch prey. Turbidity also reduces the desirability of waters for swimming and other recreational uses. High levels of suspended sediment, usually measured as turbidity for regulatory purposes, can cause public drinking water treatment systems to shut down and increase operation and maintenance costs.

What is the scope of the rulemaking?

DEQ is focusing its revision of water quality standards on the impacts to beneficial uses related to turbidity. Turbidity is related to other water quality parameters such as sedimentation, nutrients and toxics. These relationships are site-specific and are addressed through implementation of other water quality standards and DEQ programs.

Why is DEQ reviewing the water quality standards for turbidity?

The current turbidity standard is outdated and inadequate to fully protect Oregon's waters from potential effects from turbidity. The current

provisions, adopted in 1976, require no more than a ten percent increase over natural background turbidity levels. At low natural turbidity levels that are prevalent in Oregon waters much of the year, a ten percent increase is within the error range of measurement and does not correspond with an impact on beneficial uses. In addition, the expression of the standard has made it challenging to implement across all of DEQ's water quality programs.

How will DEQ develop its revised turbidity regulations?

DEQ is reviewing scientific literature and data on the effect of turbidity on beneficial uses, and has convened a panel of scientific experts to further review this technical work. The expertise of the scientific panel includes stream, lake and estuarine ecologists, hydrologists, and biologists. DEQ will use the technical work as the basis for rule options. From July through October, 2010, DEQ will discuss rule options with a stakeholder workgroup to provide input on policy, economic and other implications of rule options. DEQ plans to publish a draft rule revision and hold public hearings in February 2011.

When will the revised water quality standard for turbidity be adopted?

DEQ plans to propose revised water quality standards for turbidity for adoption by the Environmental Quality Commission in June 2011.

For more information

DEQ will post updates on its efforts to revise water quality standards for turbidity on its website: <http://www.deq.state.or.us/wq/standards/turbidity.htm>. Also, persons who want to receive e-mail notices of public hearings and other updates may sign up for [DEQ e-mail notification service](#) list under the water quality/ policies and standards heading. The main contact for this rulemaking is Aron Borok of DEQ's water quality program in Portland. Mr. Borok may be reached at 503-229-5050, or toll-free in Oregon at 1-800-452-4011, ext. 5050, or at borok.aron@deq.state.or.us.

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 call toll-free in Oregon at 1-800-452-4011, ext. 5696.



State of Oregon
Department of
Environmental
Quality

Water Quality Standards and Assessment

811 SW 6th Ave.
Portland, OR 97204
Phone: (503) 229-5050
(800) 452-4011
Fax: (503) 229-6762
Contact: Aron Borok
www.oregon.gov/DEQ

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