

## Oregon Poised to Adopt Nation's Strictest Water Quality Standards for Toxic Chemicals

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After years of planning and debate, the Oregon Environmental Quality Commission (EQC) next week will likely adopt a proposal by the Department of Environmental Quality (DEQ) to tighten human health-based water quality criteria for a broad range of toxic pollutants. The proposed rules are driven by a fish consumption rate that is ten times higher than assumed in previous rules. Once adopted by the EQC and approved by the EPA, the new rules will result in stricter limits on water discharge permits and new programs to control agricultural and forestry runoff. The proposed rules are controversial and set Oregon apart as having the strictest water quality standards in the country.

DEQ's staff report on the proposed rules, as well as the proposed rules themselves can be found [here](#).

### Introduction and history of the toxics rules

A complex suite of federal and state laws govern water quality standards. The federal Clean Water Act (CWA) requires states to identify beneficial uses of all natural water bodies and to adopt water quality requirements designed to protect the identified uses (e.g. drinking water supply, recreation, fish and wildlife health). States must submit their proposed water quality standards to EPA for approval. EPA has authority to reject a state's proposed standards and substitute its own standards.

Water quality standards form the basis of permits under the National Pollutant Discharge Elimination System (NPDES) that regulate the discharge of pollutants from specific sources. States are also directed to develop additional programs to control water pollution from so-called "nonpoint" sources, such as runoff from agricultural land, that do not require NPDES permits under the CWA. When a water body fails to meet water quality standards, the state develops a Total Maximum Daily Load (TMDL) plan that identifies the sources of pollution in the water body, allocates pollutant loads to the various sources and details how the loading limits will be achieved over time. TMDLs must also be approved by EPA.

In 2004, EQC adopted EPA's then recommended criteria for toxic pollutants. The human health criteria were based on a national fish consumption rate of 17.5 grams per day, or about one meal of fish every two weeks. EPA and local Indian tribes objected to this standard, arguing that tribal members and coastal populations typically consume a significantly higher volume of fish than assumed in the national standard. As a result, DEQ began a stakeholder process to reconsider the fish consumption rate.

In 2008, DEQ presented the results of this stakeholder process along with a joint recommendation from DEQ, EPA, and the Confederated Tribes of the Umatilla

Reservation of a fish consumption rate of 175 grams per day, or about 23 fish meals per month. Then, in 2010, EPA formally rejected the EQC's existing human health criteria for toxic pollutants to pave the way for new rules based on a tenfold increase in the fish consumption rate.

### **Key components of the new rules**

#### **1. Tighter standards for toxic pollutants**

The proposed rules include a table that sets specific concentration limits for a broad range of toxic pollutants based on the new fish consumption rate. Because DEQ now assumes that Oregonians eat 10 times more fish than it previously assumed, the agency has determined that concentrations of chemicals in fish tissue must be 10 times lower in order to prevent negative impacts to human health. For example, the maximum concentration of zinc allowed in fish tissue under the rules adopted by the EQC in 2004 was 26 parts per billion (ppb). Under the proposed rules, the maximum concentration would be reduced to 2.6 ppb.

#### **2. Accounting for background pollution concentrations**

One of the key issues in the rulemaking process has been whether the standards that DEQ has proposed are attainable given background levels of pollution in Oregon waters. Background levels can mean either natural concentrations of a pollutant or elevated pollution levels in a given stream segment as a result of upstream pollution. Either scenario presents a challenge for a water discharger if the water quality standards effectively require the user to return water to a stream in better condition than the user received the water. The proposed DEQ rules and other recent actions by the EQC attempt to address this problem in several ways.

First, EQC adopted less stringent criteria in late 2010 and early 2011 for iron, arsenic and manganese, three pollutants known to occur naturally at high concentrations in Oregon waters. Second, the proposed rules include a mechanism that allows DEQ to set site-specific background pollutant criteria where it is shown that background levels of a particular pollutant exceed water quality standards but do not present a health risk to local populations. In these cases, a discharger with an NPDES permit would be allowed to further increase concentrations of the pollutant up to 3% under certain conditions. See proposed OAR 340-041-0033(6). Third, the proposed rules include a provision for "intake credits" that are designed to account for pollutants in a water discharger's intake water. See proposed OAR 340-041-0105.

#### **3. Variances**

Existing DEQ rules allow NPDES permit holders to seek short term exemptions from water quality standards in some circumstances. The proposed rules allow an existing permit holder to obtain a variance if it cannot feasibly meet the water quality standard due to circumstances such as background pollution, low water flows or widespread social and economic impacts. DEQ may grant a variance if it will not harm beneficial uses of the water body, impact endangered species or harm human health and the discharger adopts a pollution minimization plan to ensure progress towards meeting the

relevant standards. DEQ may issue a variance for the term of an NPDES permit, generally five years. See proposed OAR 340-041-0059.

#### 4. Controls on nonpoint water pollution from agricultural and forestry activities

Although nonpoint sources of water pollution such as agricultural and forestry activities are not required to obtain NPDES permits under the CWA, they are impacted by other parts of the CWA, as well as the Oregon Agricultural Water Quality Management Act and the Forest Practices Act. The Oregon Department of Agriculture (ODA), not DEQ, has primary authority for managing pollution from farm and forest sources under these statutes. DEQ's proposed rules generally maintain ODA's authority in this area, but clarify how farmers and foresters must use best management practices developed by ODA to ensure compliance with water quality standards. See proposed OAR 340-041-007 and 0061.

#### 5. TMDL load allocations

On a related note, the proposed rules clarify that DEQ may allocate pollution loads to farm and forest sources in TMDL development based on surface runoff and soil and groundwater contamination. The proposed rules also allow DEQ to allocate pollution loads to air-based sources of water pollution. See proposed OAR 340-042-0040 and 0080.

### **Conclusion**

DEQ's new toxics water quality standards will be the most stringent in the nation. On the one hand, this marks the logical conclusion of the CWA's promise to make all U. S. waters fishable and swimmable. On the other, it comes during a historically weak economy and will impose financial hardship on municipal wastewater treatment operators and industry. The new rules are an improvement over the original draft in that it provides potential escape routes, but the very strict standard feeds the broad perception that Oregon is unfriendly to business. The effect on the state's ability to attract and retain industry remains to be seen.

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