



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

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OFFICE OF
WATER AND WATERSHEDS

OCT 17 2011

Mr. Neil Mullane, Administrator
Water Quality Division
Department of Environmental Quality
811 SW Sixth Avenue
Portland, Oregon 97204-1390

Re: EPA's Approval of New and Revised Human Health Water Quality Criteria for Toxics and Implementation Provisions in Oregon's Water Quality Standards Submitted on July 12 and 21, 2011

Dear Mr. Mullane:

The U.S. Environmental Protection Agency (EPA) has completed its Clean Water Act (CWA) review of Oregon's new and revised human health water quality criteria for toxics and implementation provisions in Oregon water quality standards found in Chapter 340, Division 41, of Oregon's Administrative Rules (OAR 340-041) and submitted to the EPA on July 12, 2011 and July 21, 2011. The new and revised water quality standards identified below are hereby approved as consistent with Section 303 of the Clean Water Act, 33 U.S.C § 1313, and its implementing regulations.

Water quality standards describe the desired condition of a waterbody and consist of three principle elements: (1) the "designated uses" of the state's waters, such as public water supply, recreation, propagation of fish, or navigation; (2) "criteria" specifying the amounts of various pollutants, in either numeric or narrative form, that may be present in those waters without impairing the designated uses; and (3) antidegradation requirements, providing for protection of existing water uses and limitations on degradation of high quality waters. The EPA's regulations at 40 C.F.R. Part 131 describe the minimum requirements for each of these three elements of water quality standards.

The new and revised water quality standards submitted on July 12 and 21, 2011 revise Oregon's human health criteria with criteria calculated using a fish consumption rate of 175 grams per day. They also add a new performance-based provision that authorizes Oregon Department of Environmental Quality (ODEQ) to develop site-specific background pollutant criteria and significantly revises Oregon's variance authorizing provision. The EPA is approving all new and revised provisions which we determined to be water quality standards under Section 303(c) of the CWA and acknowledges the other changes to OAR 340-041 that are not water quality standards. Furthermore, we acknowledge the rule changes made to OAR 340-042 and 045. We understand that all of these rules will be used by ODEQ to implement Oregon's water quality control programs.

The new and revised human health criteria address the revisions EPA identified as necessary in its June 1, 2010 disapproval action to comply with the CWA.¹ The revisions to the human health criteria address this disapproval action and the EPA's concerns regarding the protection of high fish consuming populations in Oregon. Today's approval action completes the EPA's disapproval action of the human health criteria on June 1, 2010. Therefore, both the EPA and ODEQ have completed their CWA obligations stemming from the EPA's June 1, 2010 disapproval action.

BACKGROUND

In 1999, ODEQ initiated a review of Oregon's criteria for toxic pollutants contained in OAR 340-041-0033. The new and revised human health criteria for 104 toxic pollutants and submitted to the EPA for review under the CWA on July 8, 2004 were among the changes made pursuant to this review. Shortly after receipt of this package, the EPA was contacted by the Confederated Tribes of the Umatilla Indian Reservation regarding their concerns that the fish consumption rate used to derive the 2004 criteria (17.5 grams per day) did not adequately protect Tribal subsistence consumers. Ensuing discussions led to an agreement that ODEQ, the Umatilla Tribes and the EPA would conduct a public process to review the fish consumption rate appropriate for protection of designated uses in Oregon's waters.

On October 23, 2008, the three governments recommended to Oregon's Environmental Quality Commission (Commission) that a rate of 175 grams per day be utilized for developing criteria for Oregon's waters. The Commission concurred with this recommendation and directed ODEQ to revise the human health criteria using a fish consumption rate of 175 grams per day and to review implementation measures to be used in association with these criteria. ODEQ established two work groups to provide additional feedback during that process.

On June 1, 2010, the EPA disapproved Oregon's human health criteria submitted in 2004 since these criteria were not protective of Oregon's designated use of fishing consistent with the Commission's October 2008 directive. The EPA's disapproval action extended to the majority of new and revised human health criteria that were based on a fish consumption rate of 17.5 grams per day as well as the footnotes associated with those criteria. At this time, the EPA also approved the human health criteria for asbestos and copper, several footnotes, the withdrawal of eight human health criteria, and revisions to the narrative toxic provisions at OAR 340-041-0033(1) and (2).

In response to the Commission's October 2008 directive and in order to remedy the EPA's June 1, 2010, disapproval action, ODEQ proposed revisions to OAR 340-041 on December 15, 2010. ODEQ provided a formal public comment period on the proposed revisions and held nine public hearings. The public comment period extended from December 21, 2010, through March 21,

¹ June 1, 2010. Letter from Michael A. Bussell, Director, Office of Water and Watersheds, EPA Region 10 to Neil Mullane, Administrator, Water Quality Division, ODEQ, Re: EPA's Action on New and Revised Human Health Water Quality Criteria for Toxics and Revisions to Narrative Toxics Provisions in Oregon's Water Quality Standards.

2011. The one thousand and seventy-five written comments were received to which ODEQ responded. Revisions were adopted by the Commission on June 16, 2011, and filed with the Oregon Secretary of State on July 13, 2011. ODEQ submitted these revisions to EPA for review and approval on July 21, 2011. Oregon's submittal included a letter dated July 20, 2011, from Larry Knudsen, Assistant Attorney General, certifying that the revisions were adopted in accordance with Oregon State law. The EPA is approving the water quality standards within the July 21, 2011, submittal as part of this action.

ODEQ also submitted revised human health criteria for arsenic in a separate submittal on July 12, 2011. ODEQ accepted public comments on its revised arsenic criteria from August 25 to September 30, 2010, and held public hearings in Portland and Pendleton. ODEQ also conducted further public comment on a revised proposed rule from February 1 to February 23, 2011. These revisions were adopted by the Commission on April 21, 2011, and became effective under State law upon filing with the Oregon Secretary of State on June 30, 2011. ODEQ submitted the revisions to the human health criteria for arsenic to the EPA for review and approval on July 12, 2011. The EPA is approving the revised human health criteria for arsenic as part of this action.

While the July 21, 2011, submittal included revisions to a number of provisions in OAR 340-041, 42 and 45, the EPA is acting only on those new and revised provisions which are considered water quality standards under Section 303(c) of the CWA. ODEQ submitted revisions and requested the EPA review and act on the water quality standards contained in OAR 340-041. Revisions addressed in today's action can be divided into the general categories described below.

1. *New and revised human health criteria at OAR 340-041-0033.*

ODEQ adopted new and revised human health criteria for 104 toxic pollutants (48 non-carcinogens and 56 carcinogens) based on a fish consumption rate of 175 grams per day. The criteria for these toxic pollutants are consistent with the EPA's 304(a) recommended criteria values² and were derived using the methodology presented in the EPA's 2000 *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health*³ and the EPA's 2001 Methylmercury guidance.⁴ The new human health criteria for toxic pollutants are contained in Table 40.

Additional revisions related to the human health criteria include:

- The removal of 13 pollutants consistent with EPA's removal of 304(a) recommended criteria values for these same pollutants. Most of these recommended criteria were withdrawn since the EPA developed individual criteria for the most toxic of chemicals in the family of chemicals represented by those 13 pollutants.

² 2009. EPA National Recommended Water Quality Criteria. Available at: <http://water.epa.gov/scitech/swguidance/standards/current/upload/nrwqc-2009.pdf>

³ EPA. 2000. *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health*. EPA-822-B-00-004. Available at: <http://www.epa.gov/waterscience/criteria/humanhealth/method/complete.pdf>

⁴ EPA. 2001. *Water Quality Criterion for the Protection of Human Health: Methylmercury*. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. EPA 823-R-01-001. Available at: <http://www.epa.gov/waterscience/criteria/methylmercury/document.html>.

- Several new, revised and withdrawn footnotes to the criteria in order to provide clarification.
- Revisions to the water quality standards provision at OAR 340-041-0033 which provides narrative language explaining the human health and aquatic life criteria tables.

2. *Revised arsenic human health criteria.*

ODEQ adopted revised human health criteria for arsenic and submitted the revised criteria separately to the EPA on July 12, 2011.

3. *New implementation provision entitled “Site-specific background pollutant criteria” at OAR 340-041-0033(6).*

ODEQ adopted a new provision that authorizes the development of a site-specific criterion under specified conditions and applicable to waterbodies in the vicinity of a NPDES permitted discharge that receives a pollutant from the intake water, concentrates that pollutant without adding mass, and discharges it back to the receiving water. The new criterion may not be more three percent higher than the existing criteria or represent a carcinogenic risk of greater than 10^{-4} . Several other limiting factors are also defined in the new rule.

4. *Revised variance provision at OAR 340-041-0059.*

ODEQ has removed the variance language found at OAR 340-041-0061(2) and replaced it with new language at OAR 340-041-0059. ODEQ’s objective for these revisions was to ensure that variances and their accompanying pollutant reduction plans will result in improvements in water quality, efficiencies in the administration process, and add general clarification to the rule. A new requirement was added that a pollutant reduction plan be developed for each facility granted a variance.

5. *A correction to a cross-reference in the bacteria provision found at OAR 340-041-0009(10).*

ODEQ adopted a revision to correct the cross-reference in this provision to reflect rule numbering revisions in OAR 340-041-0061.

6. *Revised rules explaining how the mechanisms for forestry and agricultural nonpoint sources work to meet water quality standards and the total maximum daily load (TMDL) load allocations under the Forest Practices Act and Agriculture Water Quality Management Act at OAR 340-041-0007(5) and OAR 340-041-0061(9)(a)(E), (10), and (11).*

ODEQ adopted revisions to clarify how nonpoint sources will be addressed in TMDLs and how ODEQ will interact with the Departments of Forestry and Agriculture to ensure needed programs are in place to address these sources of pollution.

EPA'S DECISION

In accordance with its Clean Water Act authority, 33 U.S.C § 1313(c)(3) and 40 C.F.R. part 131, the EPA is approving the following because they are protective of Oregon's designated uses:

- New human health toxic criteria for 42 pollutants in Table 40.
- Revised human health toxic criteria for 63 pollutants (including arsenic) in Table 40.
- New footnotes for cyanide, PCBs methylmercury and arsenic in Table 40.
- Removal of 13 general human health criteria since the state has adopted more specific human health criteria for each toxic pollutant consistent with the EPA's current 304(a) criteria recommendations.
- New and revised provisions at OAR 340-041-0033(1), (3) and (4) which describe dates when the toxics criteria in Tables 20, 33A, 33B and 40 become effective under state law and the Clean Water Act.
- Minor editorial revision to correct an error in the cross-reference in the bacteria provision at OAR 340-041-0009(10).
- Revised variance provision at OAR 340-041-0059. (note: there are several sections within the variance provision that the EPA did not consider to be WQS and therefore, took no action on).
- New site-specific background pollutant criteria at OAR 340-041-0033(6).

The EPA does not consider the following revisions to be water quality standards under Section 303(c) of the CWA and therefore; the EPA is taking no action on them:

- New footnote for human health toxics criteria for barium in Table 40.
- Revised footnotes for asbestos, chlorophenoxy herbicide (2,4,5,-TP), chlorophenoxy herbicide (2,4,-D), copper, methoxychlor, and nitrates.
- Removal of footnotes for hexachlorocyclo-hexane-technical, nitrosamines, and nitrosodiethylamine, N.
- New introductory summary language for Table 40 which explains the purpose of the criteria, criteria derivation and the format of the table.
- Revised rules at OAR 340-041-0007(5) which explain how the mechanism for forestry nonpoint sources work to meet water quality standards and the total maximum daily load (TMDL) load allocations under the Forest Practices Act.
- Revisions to OAR 340-041-0061(9)(a)(E), (10), and (11) which correct an error in the cross-reference to the antidegradation policy and revised rules regarding forestry and agricultural nonpoint sources under the Forest Practices Act and Agriculture Water Quality Management Act.

A detailed discussion of the rationale supporting today's actions is included in the enclosed Technical Support Document.

CONCLUSION

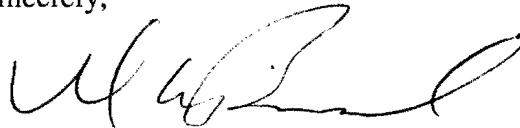
In closing, we would like to thank ODEQ and the Commission for your dedication and leadership throughout this rule development process. Oregon's work on the Fish Consumption Rate Review Project resulted in a solid foundation that supported the development of these human health criteria that protect all consumers of fish caught in Oregon's waters, the general population as well as tribal fishers and other high-consuming populations in the State. This rule will serve as a solid example to other states in the Northwest and throughout the country as they address similar issues. Oregon's work will also provide a framework for the EPA Region 10's efforts with other states and tribes in our Region.

We appreciate the opportunity to work closely with you, your staff, the Confederated Tribes of the Umatilla Indian Reservation, and your stakeholders throughout this process. You have conducted a thoughtful and thorough process. It has been a great experience to partner with the State of Oregon in this effort.

The EPA understands that the implementation of these standards is on a long-term path and is committed to working with ODEQ in the years ahead as the standards are implemented. Providing Oregon assistance in processing variance requests and addressing other issues that may arise from the adoption of these more stringent standards is a high priority for me and the Office of Water and Watersheds. Please let us know how we might be of continues assistance as you encounter needs and questions that result from implementation of these criteria.

If you have any questions concerning this letter please contact me at (206) 553-4198 or you may contact Jannine Jennings, Water Quality Standards Unit Manager, at (206) 553-2724.

Sincerely,



Michael A. Bussell, Director
Office of Water and Watersheds

Enclosure:

cc: Ms. Jennifer Wigal, ODEQ
Ms. Debra Sturdevant, ODEQ
Ms. Andrea Matzke, ODEQ
Mr. Eric Quempts, CTUIR
Mr. Carl Merkle, Confederated Tribes of the Umatilla Indian Reservation