

EPA Rationale for Action to Approve Oregon's 2012 With No Listings for Aquatic Life Impairments in Marine Waters and Action to Add Waters to Oregon's 2012 303(d) List

I. Purpose

This document summarizes the basis for the EPA's final decision to approve Oregon's 2012 list with no listings for aquatic life impairments in marine waters and the EPA's identification of 999 Water Quality Limited Segments (WQLS) for inclusion on Oregon's 2012 303(d) list.

II. Overview

Clean Water Act ("CWA") Section 303(d), 33 U.S.C. § 1313(d), ("Section 303(d)") requires states to identify those waters within its jurisdiction for which effluent limitations required by CWA Section 301(b)(1)(A) and (B), 33 U.S.C. § 1311(b)(1)(A) and (B), are not stringent enough to implement any applicable water quality standard, to establish a priority ranking for such waters, and to submit a listing of such waters to the EPA ("Section 303(d) list").

On November 5, 2014, the Oregon Department of Environmental Quality ("ODEQ") submitted Oregon's 2012 Section 303(d) list of water quality limited segments ("WQLS") still requiring a Total Maximum Daily Load (TMDL) ("Oregon's 303(d) list"), to the EPA, as part of the Integrated Report submitted by ODEQ ("submission") to meet the requirements of CWA Sections 303(d), 305(b), and 314; 33 U.S.C. § 1313(d), 1315(b), and 1324. *See* ODEQ, 2014b.

On December 21, 2016, the EPA partially approved and partially disapproved Oregon's 2012 303(d) list. Upon review of ODEQ's list submittal, the EPA determined that Oregon's 2012 Section 303(d) listing of 131 WQLS still requiring TMDLs met the requirements of CWA Section 303(d) and the EPA's implementing regulations. In addition, the EPA determined that ODEQ's removal of 60 water quality limited segments due to standards attainment was also consistent with CWA Section 303(d) and the federal regulations. ODEQ removed an additional 17 WQLSs from Category 5 and appropriately placed them in Category 4a and 4b. However, when providing clarifying information to the EPA upon request, ODEQ determined that 11 other additions were identified in error, and at the request of ODEQ, the EPA removed these WQLS from the list prior to the public comment period, as stated in comment period Enclosure 8: EPA Corrections to ODEQ 2012 (EPA, 2016.) The EPA found that the proposed delisting of 8 additional WQLS from the 303(d) list was inappropriate and disapproved these delistings and added these WQLS to Category 5. *See* EPA, 2016.

The EPA also determined that ODEQ failed to assemble and evaluate all existing and readily available water quality related data and information for water bodies of the state when developing Oregon's 2012 Section 303(d) list. Specifically, based on the EPA's review of data ODEQ solicited and collected for the 2012 303(d) list development that were entered into the Laboratory Analytical Storage and Retrieval (LASAR) database, ODEQ failed to evaluate readily available data and information for the following pollutants: alkalinity; ammonia; aquatic weeds; bacteria; biocriteria; chloride; chlorine; chlorophyll a; dissolved oxygen outside the Willamette and Umatilla Basins; marine waters; metals; nitrates; pH; phosphorus; temperature; tissue of fish and soft shell clams; total dissolved gas; and toxics outside the Willamette and Umatilla Basins. ODEQ also failed to evaluate readily available data and information from other sources besides LASAR, such as from readily available public databases, federal agencies, other state and local governments, tribes, volunteer organizations, and stakeholder submitted data and

EPA Rationale for Action to Approve Oregon’s 2012 With No Listings for Aquatic Life Impairments in Marine Waters and Action to Add Waters to Oregon’s 2012 303(d) List

comments. *See* EPA, 2016. While the EPA determined that ODEQ’s listings were appropriate, the EPA disapproved Oregon’s decision to limit its assessment to certain parameters and only data in the LASAR database as it was assembled.¹

In accordance with 40 CFR § 130.7(d)(2), on December 21, 2016 the EPA identified 1054 WQLS for inclusion on Oregon’s 2012 303(d) list and issued public notice seeking comment on those listings. At that time, the EPA took no action on Oregon’s decision to not list marine waters for aquatic life impairments based on existing data and information, but instead the EPA sought public comment on existing studies and solicited any additional data and information pertaining to marine aquatic life impairments.

After review of all the comments received and evaluation of ODEQ’s rationale for not using existing and readily available data and information to list marine waters,² the EPA is adding a total of 999 WQLS to Oregon’s 2012 303(d) list, and approving Oregon’s 303(d) list with no marine water listings for aquatic impairments. Further rationale and details of the EPA’s decisions are contained in this Rationale document; Enclosure 2: “EPA Response to Comments on Oregon’s 2012 303(d) List Partial Approval/Partial Disapproval;” Enclosure 3: “EPA Site Specific Response to Comments;” Enclosure 4: “EPA List Additions Oregon 2012;” and Enclosure 5: TMDL Litigation Waters Returning to Category 5. Enclosure 6: “Waters Not Listed on Oregon 2012,” provides further information regarding the EPA’s basis for determining that certain of the waters identified in 2016 should not be listed.

III. The EPA’s List Development Process, Solicitation of Public Comments and Final Decisions

As required by 40 CFR Section 130.7(d)(2), because the EPA partially disapproved Oregon’s list, the EPA identified waters in the state that did not meet water quality standards. The EPA issued a public notice on December 16, 2016 and sought comment on its additions through April 3, 2017. *See* <https://www.epa.gov/tmdl/partial-approval-and-partial-disapproval-oregon-2012-303d-list>.

The EPA began its list development process by evaluating data from Oregon’s LASAR database for the time period of January 1, 2000 through December 31, 2011. LASAR is ODEQ’s repository for data and information that ODEQ gathers or has gathered for it, as well as data and information submitted by partner agencies and watershed groups and received in response to the “call for data” during the development of Oregon’s 2012 303(d) list and during previous lists. LASAR provided the vast majority of relevant data for the parameters the EPA assessed; however, there were other existing and readily available data and information, so the EPA did not rely solely on Oregon’s LASAR database for assessing its additional listings. The EPA also gathered data from the United States’ Geological Survey’s (USGS) National Water Information

¹ 40 CFR §130.7(b)(5) requires that “Each State shall assemble and evaluate all existing and readily available water quality related data and information to develop the list.”

² 40 CFR §130.7(b)(6) provides that States “shall provide documentation to the Regional Administrator to support the State’s determination to list or not list its waters . . . “ and the regulation further specifies that the documentation shall include a “ A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in §130.7(b)(5); . . . “

EPA Rationale for Action to Approve Oregon’s 2012 With No Listings for Aquatic Life Impairments in Marine Waters and Action to Add Waters to Oregon’s 2012 303(d) List

System (NWIS) and from the EPA’s STORET (STOrage and RETrieval) data warehouse. The STORET Data Warehouse is a repository for water quality, biological, and physical data and is used by state environmental agencies, the EPA and other federal agencies, universities, private citizens, tribes and many others. NWIS is repository of water-resources data (such as water quality and streamflow) collected by USGS at major rivers, lakes, and reservoirs. Examples of water-quality data collected are temperature, specific conductance, pH, nutrients, pesticides, and volatile organic compounds. Additional data and information provided to the EPA during the December, 2016 public comment period were also considered. For a more detailed description of all sources of data and information used by the EPA, see comment period Enclosure 5: EPA Data Sources dated December 2016, and final Enclosure 2: “EPA Response to Comments on Oregon’s 2012 303(d) List Partial Approval/Partial Disapproval,” and Enclosure 3: “EPA Site Specific Response to Comments.” *See* EPA, 2016 and EPA, 2018.

When determining whether to add waters to Oregon’s Section 303(d) list, the EPA reviewed Oregon’s current applicable water quality standards (Oregon Administrative Rules, Chapter 340, Division 41) and used, in large part, Oregon’s listing methodology. *See* ODEQ, 2014a. The EPA also referred to the water quality assessment guidance documents issued by the EPA. *See* EPA, 2001; EPA, 2003a; EPA, 2003b; EPA, 2005; EPA, 2006; and EPA, 2009; EPA, 2010; EPA 2013; EPA, 2015.

The EPA developed a listing methodology to use in its assessment of impaired waters to add to Oregon’s 2012 303(d) list. This listing methodology was the same as ODEQ’s “Methodology for Oregon’s 2012 Water Quality Report and List of Water Quality Limited Waters,” (ODEQ, 2014a) for the parameters the EPA assessed, except where noted in public comment period Enclosure 6: EPA Listing Methodology for Oregon 2012 303(d) List, dated December, 2016. *See* EPA, 2016. The EPA provided the public with its assessment methodology during the public comment period.

To support its additions, the EPA produced the following information that was also available during the comment period: (1) EPA’s Review of Oregon’s 2012 Integrated Report; (2) EPA 303(d) Listing Methodology; (3) EPA Proposed Additions to Oregon’s 2012 303(d) List; (4) EPA Corrections to ODEQ’s 2012 303(d) List; (5) TMDL Litigation Waters returning to Category 5; and (6) supporting data spreadsheets that described the data and information used to identify the waters for harmful algal blooms, aquatic weeds, biocriteria, chlorophyll a, dissolved oxygen, E. coli, Enterococci, pH, phosphorus (nutrients), temperature and toxics. *See* EPA, 2016.

The EPA took no action at the time of the 2016 partial approval/partial disapproval with respect to aquatic life impairments in marine waters. In public comment Enclosure 2: “Request for Public Comment on Ocean Acidification Impacts in Oregon Marine Waters,” the EPA invited the public to comment on specific cited studies that are potentially representative of Oregon waters. *See* EPA 2016. The EPA also sought any additional data or information about Oregon water quality that pertain to parameters associated with ocean acidification or which speak to the support of aquatic life designated uses in marine waters.

EPA Rationale for Action to Approve Oregon’s 2012 With No Listings for Aquatic Life Impairments in Marine Waters and Action to Add Waters to Oregon’s 2012 303(d) List

The EPA received comment letters from fourteen individuals or organizations (one representing multiple trade organizations) on the additions to Oregon’s 2012 303(d) list. The comments received included comments on the EPA additions, as well as comments on the EPA’s process and listing methodology. Two comment letters specifically focused on ocean acidification impacts, and ODEQ provided ocean acidification comments as part of its comment letter.

The EPA has summarized the comments and provided responses in the documents entitled Enclosure 2: “EPA Response to Comments on Oregon’s 2012 303(d) List Partial Approval/Partial Disapproval,” and Enclosure 3: “EPA Site Specific Response to Comments on Oregon 2012 303(d) List.” See EPA, 2018.

After considering public comment and making any revisions deemed appropriate, the EPA is transmitting the listings for Oregon to incorporate into its 303(d) list of impaired waters. There are 999 listings being transmitted to Oregon. Further details about the 999 listings are provided in Enclosure 4: “EPA Final Additions to Oregon’s 2012 303(d) List,” Enclosure 5: “TMDL Litigation Waters Returning to Category 5,” and Enclosure 6: “Waters Not Listed on Oregon’s 2012 303(d) List.”

The EPA also is approving Oregon’s decision not to list marine waters with respect to aquatic life impairments because there are no direct scientific observations of biological degradation within Oregon state waters. On March 29, 2017, ODEQ provided comments and its rationale for why it determined that the existing data and information do not support listing Oregon’s jurisdictional ocean waters at this time. See 40 CFR §130.7(b)(6)(iii), (iv). The EPA reviewed ODEQ’s rationale and determined that it was reasonable for the State not to list its marine waters for aquatic life use impairment at this time for the following reasons. Although several studies document a correlation between the dissolution of pteropod shells and corresponding aragonite saturation state, the EPA acknowledges that the current *in situ* data indicating biological impairment to pteropods is from outside of Oregon’s state waters. The State noted that without data about the health of the extant aquatic life within Oregon’s waters, it was unable to conclude that there have been detrimental changes to the resident biological communities. It is reasonable for Oregon to await in-state data to confirm to its satisfaction that there are not environmental differences between state and federal waters that may affect the health of the resident biological communities. EPA has determined that, on that basis, it is reasonable for the State to decline to list its marine waters at this time. As water chemistry data taken inside Oregon’s state waters document similar conditions that have been observed to be corrosive to pteropods outside state waters, EPA continues to recommend that Oregon’s future research efforts in state marine waters include the collection of pteropod data to further understand current water quality conditions and aquatic life impacts within Oregon’s territorial waters. The EPA’s responses to all ODEQ’s comments as well as other comments received on aquatic impairments are contained in Enclosure 2: “EPA Response to Comments on Oregon’s 2012 303(d) List Partial Approval/Partial Disapproval,” and Enclosure 3: “EPA Site Specific Response to Comments on Oregon 2012 303(d) List,” attached to this decision document.

IV. List of Enclosures and References

Enclosures:

EPA Rationale for Action to Approve Oregon's 2012 With No Listings for Aquatic Life Impairments in Marine Waters and Action to Add Waters to Oregon's 2012 303(d) List

Enclosure 2: EPA Response to Comments on Oregon 2012 303(d) List Partial Approval/Partial Disapproval

Enclosure 3: EPA Site Specific Response to Comments on Oregon 2012 303(d) List

Enclosure 4: EPA Oregon 2012 303(d) List Additions

Enclosure 5: TMDL Litigation Waters Returning to Category 5 OR 2012

Enclosure 6: Waters Not Added to Oregon 2012 303(d) List

References:

Bednarsek N, Feely RA, Reum JCP, Peterson B, Menkel J, Alin SR, Hales B. 2014. *Limacina helicina* shell dissolution as an indicator of declining habitat suitability owing to ocean acidification in the California Current ecosystem. *Proceedings of the Royal Society B: Biological Sciences* 281 (1785), 20140123–20140123. doi:10.1098/rspb.2014.0123.

Bednaršek N, Harvey CJ, Kaplan IC, Feely RA, Možina J. 2016. Pteropods on the edge: Cumulative effects of ocean acidification, warming, and deoxygenation. *Progress in Oceanography* 145, 1–24.

Bednarsek, N, Klinger T, Harvey CJ, Weisberg S, McCabe RM, Feely RA, Newton J, Tolimieri N. 2017a. New ocean, new needs: Application of pteropod shell dissolution as a biological indicator for marine resource management. *Ecological Indicators* 76, 240-244. <http://dx.doi.org/10.1016/j.ecolind.2017.01.025>.

Bednarsek N, Feely RA, Tolimieri N, Hermann AJ, Siedlecki SA, Waldbusser GG, McElhany P, Alin SR, Klinger R, Moore-Maley B, Portner HO. 2017b. Exposure history determines pteropod vulnerability to ocean acidification along the US West Coast. *Scientific Reports* 7, 4526. DOI:10.1038/s41598-017-03934-z.

EPA, 1978. December 28, 1978 Federal Register Notice, *Total Maximum Daily Loads Under Clean Water Act*, finalizing EPA's identification of pollutants suitable for TMDL calculations, 43 Fed. Reg. 60662.

EPA, 1985. January 11, 1985 Federal Register Notice, *40 CFR Parts 35 and 130, Water Quality Planning and Management: Final Rule*, 50 Fed. Reg. 1774.

EPA, 1986. Ambient Water Quality Criteria for Bacteria – 1986. EPA 440/5-84-002. US Environmental Protection Agency, Office of Water, Washington DC.

EPA, 1991. *Guidance for Water Quality Based Decisions: The TMDL Process*. EPA 440/491-001 U.S. Environmental Protection Agency, Office of Water, Washington, DC.

EPA Rationale for Action to Approve Oregon's 2012 With No Listings for Aquatic Life Impairments in Marine Waters and Action to Add Waters to Oregon's 2012 303(d) List

EPA, 2000. Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California. 65 FR 97, p. 31681 et. seq., May 18, 2000.

EPA, 2001. 2002 Integrated Water Quality Monitoring and Assessment Report Guidance, Robert H. Wayland III, Director, Office of Wetlands, Oceans and Watersheds, November 19, 2001.

EPA, 2003a. EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards. EPA 910-B-03-002. Region 10 Office of Water, Seattle, WA.

EPA, 2003 b. Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act. Diane Regas, Director Office of Wetlands, Oceans and Watersheds, USEPA to Regional Water Division Directors, July 21, 2003.

EPA, 2005. Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d), 305(b), and 314 of the Clean Water Act. Diane Regas, Director, Office of Wetlands, Oceans and Watersheds, July 29, 2005.

EPA, 2006a. Information Concerning 2008 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions. Diane Regas, Director, Office of Wetlands, Oceans and Watersheds, October 12, 2006.

EPA, 2006b. Wadeable Streams Assessment: *A Collaborative Survey of the Nation's Streams*. Office of Research and Development/Office of Water. Washington, DC 20460.
EPA 841-B-06-002. December 2006.

EPA, 2009. Information Concerning 2010 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions. Suzanne Schwartz, Director, Office of Wetlands, Oceans and Watersheds, May 5, 2009.

EPA, 2010. Integrated Reporting and Listing Decisions Related to Ocean Acidification. Denise Keehner, Director, Office of Wetlands, Oceans and Watersheds, November 15, 2010.

EPA, 2011. Information Concerning 2012 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions. Denise Keehner, Director, Office of Wetlands, Oceans and Watersheds, March 21, 2011.

EPA, 2013. Information Concerning 2014 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions. Denise Keehner, Director, Office of Wetlands, Oceans and Watersheds, September 3, 2013.

EPA, 2015. Information Concerning 2016 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions. Benita Best-Wong, Director, Office of Wetlands, Oceans and Watersheds, August 13, 2015.

EPA, 2016. Partial Approval/Partial Disapproval of Oregon's Final 2010 303(d) List. Letter from Daniel D. Opalski, Director, Office of Water and Watersheds (OWW), USEPA Region 10 to Wendy Wiles, Administrator, Oregon Department of Environmental Quality (ODEQ); attachments include (1) EPA's Review of Oregon's 2012 Integrated Report; (2) EPA 303(d)

EPA Rationale for Action to Approve Oregon's 2012 With No Listings for Aquatic Life Impairments in Marine Waters and Action to Add Waters to Oregon's 2012 303(d) List

Listing Methodology; (3) The EPA Proposed Additions to Oregon's 2012 303(d) List; (5) EPA Corrections to ODEQ's 2012 303(d) List; (6) TMDL Litigation Waters returning to Category 5; and (4) supporting data spreadsheets that described the data and information used to identify the waters for harmful algal blooms, aquatic weeds, biocriteria, chlorophyll a, dissolved oxygen, E. coli, Enterococci, pH, phosphorus (nutrients), temperature and toxics. December 21, 2016.

<https://www.epa.gov/tmdl/partial-approval-and-partial-disapproval-oregon-2012-303d-list>

EPA, 2018. Final List of Waters to Add to Oregon's 2010 303(d) List. Letter from Daniel D. Opalski, Director, Office of Water and Watersheds (OWW), USEPA Region 10 to Wendy Wiles, Administrator Oregon Department of Environmental Quality (ODEQ); enclosures include: (1) EPA's Rationale to Add Waters to Oregon's 2012 303(d) List; (2): EPA Response to Comments on Oregon's 2012 303(d) List Partial Approval/Partial Disapproval; (3): EPA Site Specific Response to Comments; (4): EPA List Additions Oregon 2012; (5): Waters Not Listed on Oregon 2012. December 20, 2018. <https://www.epa.gov/tmdl/partial-approval-and-partial-disapproval-oregon-2012-303d-list>

ODEQ letter to EPA Region 10, Policy clarifications for Oregon's water quality standards interpretation, June 22, 1998.

ODEQ letter to EPA Region 10, Oregon responses to EPA questions re: the State's water quality temperature standards, February 4, 2004.

ODEQ, 2014a. Methodology for Oregon's 2012 Water Quality Report and List of Water Quality Limited Waters, October 14, 2014.

ODEQ, 2014b. Submittal of Oregon's 2012 Section 303(d) List of Category 5 Water Quality Limited Waters Needing a TMDL. Letter from Wendy Wiles, Administrator, ODEQ to Daniel Opalski, Director, Office of Water and Watersheds, USEPA; enclosures include: (1) Oregon's 2012 Section 303(d) List of Category 5 Water Quality Limited Waters Needing a TMDL Oregon's Integrated Report, (2) Waters De-listed in 2012, (3) Oregon's 2012 Integrated Report database report, (4) Oregon's 2012 TMDL Priorities and Schedule, (5) Methodology for Oregon's 2012 Water Quality Report and List of Water Quality Limited Waters; (6) Memorandum-Category 4b Demonstration Addressing Pentachlorophenol in Willamette River Sediments, and (7) Response to Comments on Oregon's 2012 Integrated Report. Water Quality Standards, Beneficial Uses, Policies, and Criteria for Oregon: Oregon Administrative Rules Chapter 340 Division 41.

http://arcweb.sos.state.or.us/rules/OARs_300/OAR_340/340_041.html