

NORTHWEST ENVIRONMENTAL ADVOCATES



February 24, 2014

Karla Urbanowicz
Water Quality Division
Oregon Department of Environmental Quality
811 S.W. 6th Ave.
Portland, OR 97204

via email only: IntegratedReport2012@deq.state.or.us

Re: Oregon's Draft 2012 Integrated Report and Section 303(d)(1) List of Impaired Waters

Dear Ms. Urbanowicz:

The following comments on Oregon's proposed 2012 Clean Water Act Section 303(d)(1) list (hereinafter "303(d) list") are submitted by Northwest Environmental Advocates (NWEA), Columbia Riverkeeper, and the Northwest Environmental Defense Center (NEDC). For many years, DEQ has sought to limit the contributions of the public to its 303(d) list by first severely limiting submissions concerning readily available data and information to its short and infrequent "calls for data," that by their terms preclude submissions of "information," and then dismissing all public comments on proposed lists that suggest there are other sources of readily available data and information. DEQ then further limits the public to commenting on the narrow issue of whether DEQ has accurately applied its listing methodology guidance to the data and information it has arbitrarily deemed acceptable. Any critiques of the way in which DEQ has analyzed the data and information are written off as comments on the listing methodology and deemed irrelevant. In this way, DEQ has persistently avoided using all the existing and readily available data and information for its 303(d) assessments, as required by federal law, and even avoided responding to the vast majority of public comments on its proposed lists.

I. OREGON FAILS TO USE ALL READILY AVAILABLE DATA AND INFORMATION IN ASSESSING ITS WATERS AND DEVELOPING ITS 303(D) LIST

Oregon DEQ has, for many years, failed to meet the requirements set out in federal regulations to "assemble and evaluate all existing and readily available water quality related data and information to develop the list[.]" 40 C.F.R. § 130.7(b)(5). EPA regulations specify that the meaning of that phrase includes but is not limited to four broad categories of waters, including waters identified as "threatened" in the state's 305(b) report. Specifically called out is a requirement that states review data and information on "[w]aters for which water quality problems have been reported by local, state, or federal agencies; members of the public; or academic institutions." 40 C.F.R. § 130.7(b)(5)(iii). The regulations instruct states that these groups should be "*actively solicited* for research they may be conducting or reporting." 40 C.F.R. § 130.7(b)(5)(iv) (emphasis added).

www.NorthwestEnvironmentalAdvocates.org

P.O. Box 12187, Portland, OR 97212-0187 Phone (503) 295-0490 Fax Upon Request

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A. DEQ's Reliance on its "Call for Data" Violates EPA Regulations

For the proposed 2012 list, DEQ used data from only three sources: (1) data submitted by the City of Gresham in response to DEQ's "call for data," (2) DEQ's own database, and (3) limited data from the U.S. Geological Survey (USGS) Oregon Water Sciences Center. *See* DEQ, Methodology for Oregon's 2012 Water Quality Report and List of Water Quality Limited Waters (Pursuant to Clean Water Act Sections 303(d) and 305(b) and OAR 340-041-0046) (Dec. 20, 2013) (hereinafter "2012 Methodology") at 9.¹ DEQ limited the data it retrieved or solicited from the latter two sources to surface water data on some toxic substances, mercury tissue residue analyses, and dissolved oxygen in the Willamette and Umatilla basins. *Id.* By severely restricting its own retrieval of data and information, DEQ incorrectly relied upon its "call for data" to meet the requirements for listing impaired waters.

1. EPA's Regulations and Guidance

EPA has explained the meaning of its regulation in its primary guidance document on the development of state's 303(d) lists with regard to the state's obligation to "solicit" data and information:

States should solicit data and information including, but not limited to, the types listed below:

- observed effects (see glossary)
- closures, restrictions and/or advisories applicable to swimming, fish consumption, and drinking water
- violations of Safe Drinking Water Act (SDWA) standards
- segment-specific ambient monitoring-chemical, physical, and/or biological
- large-scale probabilistic monitoring designs
- simple dilution calculations
- predictive (simulation) modeling,
- landscape analysis
- remote sensing
- complaints and comments from the public

EPA, Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act 30 (July 29, 2005) (hereinafter "2006 Guidance"). EPA lists the types of organizations and individuals who should be solicited for data and information. *Id.* at 31. It explains that "data and information should be drawn from existing compilations of information regarding water quality[.]" *Id.* at 30. And it notes that "EPA regulations provide that states should actively solicit organizations and individuals[.]" *Id.* at 31. The guidance explains that "EPA considers active solicitation as notifying local, state, and federal agencies, members of the public, and academic institutions that the state is seeking water quality related data and information . . . [and that] EPA recommends that states also

¹ Available at <http://www.oregon.gov/deq/WQ/Documents/Assessment/AssessmentMethodologyRep.pdf>

request such data and information via letters sent to other state agencies, federal agencies and academic institutions that may have data/information.” *Id.*

EPA’s guidance notes that the state’s obligation to review data and information extends beyond the data and information provided by the solicited public:

The state should make reasonable efforts to obtain and consider sources of data and information not provided by commenters. If particular data/information referenced in the public comments are not provided, EPA expects states to make a reasonable effort to secure the data. Solicitation requests should note that at a minimum commenters should provide as much information as possible in order for the state to be able to obtain the data or information, and again emphasize any state criteria for considering and prioritizing data sets.

Id. at 32.

EPA also discusses the limitations of a state’s use of a “call for data” by ensuring greater public input into the development of a state’s 303(d) list. The guidance states that

If state institutes a cutoff date for data submission, effective prior to establishing a draft list, there could also be a separate data solicitation step prior to compilation of a final 303(d) list. Under this scenario, the state would compile the preliminary list using all information it has at hand based on identified data sources. Additional data submissions during the public comment period would then be evaluated, appropriate changes to the draft list would be made based on these new data or information.

Id. at 31. If, on the other hand, a state declines to provide more than a 30-day period in which the public and agencies can submit data and information and declines to use the public comment period on the list itself as an opportunity to submit additional data and information, EPA says that states should both make that clear and that “data submitted after that cutoff date would be considered during the next listing cycle.” *Id.* However,

States should provide a mechanism for an exception to the limit for the submission of data if the submitter can demonstrate that the data were readily available prior to the data cutoff date and should have been included in any reasonably diligent state review of data. EPA will generally limit its review of a state listing submission to the data and information assembled by the state prior to the data cutoff date if the state was reasonably diligent in assembling available data and information and soliciting data and information from the public.

Id.

Finally, EPA holds states responsible for obtaining reasonably available data and information regardless of the failure of commenters to bring the data and information to the state’s attention:

The state should make reasonable efforts to obtain and consider sources of data and information not provided by commenters. If particular data/information

referenced in the public comments are not provided, EPA expects states to make a reasonable effort to secure the data. Solicitation requests should note that at a minimum commenters should provide as much information as possible in order for the state to be able to obtain the data or information, and again emphasize any state criteria for considering and prioritizing data sets.

Id. at 32. EPA's subsequent 303(d) listing guidance documents, for the lists to be produced by states in 2008, 2010, 2012, and 2014 have not retracted any of EPA's long-standing interpretations of its regulations at 40 C.F.R. § 130.7(b)(5) that are set out in its 2006 guidance.

2. Oregon's Failure to Follow EPA Regulations and Guidance

To support its 2010 303(d) list, DEQ held a 30-day "call for data" between May 11 and June 11, 2009. DEQ, Methodology for Oregon's 2010 Water Quality Report And List of Water Quality Limited Waters (May 12, 2011) (hereinafter "2010 Methodology") at 5.² This call for data was the first time that DEQ had solicited data from any outside source since May 2003, a period of 7 years and 7 months. That single 30-day period was followed, more recently, by a "call for data" that started on December 16, 2011 through January 31, 2012, in what might be termed the height of the "holiday season." See DEQ, Oregon's 2012 Integrated Report - Call for Data - CLOSED (hereinafter "2012 Call for Data").³ Put another way, DEQ has offered the public, including public agencies, an opportunity to submit data during approximately 75 days over a slightly less than nine year period. In this most recent call for data, DEQ stated that it would accept data "from other watersheds around the state" but that its intent was to focus and prioritize data from two basins, the Willamette and Umatilla, and further to limit its interest to data on dissolved oxygen and toxic pollutants. *Id.* DEQ has never issued a "call for data" seeking "information." Oregon's approach is blatantly inconsistent with EPA regulations and guidance.

First, DEQ has not sought from the public or evaluated on its own any "information on water quality." EPA's regulations and guidance are consistently clear that states must consider information on water quality as well as data. EPA regulations that instruct states to review data and information for which "water quality problems have been reported" clearly indicates the use of information, not just data. See 40 C.F.R. § 130.7(b)(5)(iii). EPA's 2006 guidance specifically defines "Existing and Readily Available Water Quality-Related Data and Information" to include, *inter alia*, "information found in watershed plans," "information contained in reports," "restrictions and advisories," "any *observed effect*," and results of surveys. EPA 2006 Guidance at 67-68 (emphasis in original). The glossary defines "observed effects" as:

Direct manifestations of an undesirable effect on waterbody conditions. For example, fish kills, fish lesions, depressed populations of certain aquatic species, and bioassessment scores are observed effects indicating changes in aquatic communities. Major algal blooms, undesirable taste and odor in raw and finished drinking water, and increased incidences of gastroenteritis and other waterborne

² Available at <http://www.deq.state.or.us/wq/assessment/docs/2010AssessmentMethodology.pdf>

³ Available at <http://www.oregon.gov/deq/WQ/Pages/Assessment/CallforData2012.aspx>

diseases among swimmers are also observed effects. Depending on a state's water quality standards and specific waterbody conditions, observed effects may form the basis of an impairment decision. For example, depending on the magnitude and cause of a fish kill, this observed effect may or may not result in an assessment of "impaired." Generally speaking, pollutants and pollution are not considered observed effects (e.g., lead, pesticides, phosphorus); rather, they are causes of observed effects.

Id. at 68. EPA's guidance is consistent with its intent in adopting the current regulations. In explaining its consolidation of an original proposal to set out 16 categories, EPA described its consolidated four categories as including "[w]aters identified . . . as having impaired or threatened designated uses," and "[w]aters impaired or threatened by nonpoint sources." 54 Fed. Reg. 23667-8 (July 24, 1992). The focus on uses and threats is consistent with a requirement to use information in addition to data.

In contrast, in its "call for *data*," DEQ specifically and consistently omitted any reference whatsoever to gathering information of the type required by EPA regulations and guidance. Instead, DEQ "requests that stakeholders including local, state and federal agencies, tribal nations, local interest groups and watershed councils submit *water quality data* to be considered for inclusion in the Oregon 2012 Integrated Report[.]" 2012 Call for Data (emphasis added). Throughout the 2012 "call for data," DEQ consistently omits references to information. *Id.* ("DEQ will . . . identify high quality data," "[o]f particular interest is water quality data," "DEQ is interested in statewide data," "[f]orms and templates for data submittal"). DEQ's 2010 "call for data" is similar, *see* DEQ, Oregon's 2010 Integrated Report - Call for Data - CLOSED,⁴ as is its 2004 "call for data," *see* DEQ, Data Reporting Forms and Instructions for the 2004 303(d) List.⁵

There is no indication DEQ has sought any information from anybody with the exception of the Oregon Department of Human Services. DEQ's methodology makes clear that its interpretation of the word "information" in the regulations is limited to information associated with data, e.g., location or geospatial information. *See, e.g.*, 2012 Methodology at 14, 20. Otherwise, DEQ uses the phrase "data and information" to reflect the federal regulations without giving any consideration to the requirement to assemble and evaluate all existing and readily available water quality-related information. DEQ's only reliance on "information" not associated with specific data, is related primarily to reasons upon which the agency bases not listing waters as impaired where data suggest they are. *See, e.g.*, algal growth, *id.* at 25 ("information indicates that the algae or weed growth is not due to pollutants or is a natural condition (Category 4C)."); turbidity, *id.* at 74 (placement in Category 3 if "[o]ne or more turbidity shutdowns are documented . . . but there are not data to show whether shutdown is normal after a large storm event, or indicates a problem and impaired beneficial use."); enterococci bacteria, *id.* at 29 ("precautionary advisories based on heavy rainfall, flooding, or sewage spills . . . are not included in the data summarized in the assessment."). According to its 2012 methodology, DEQ has in the past used limited information with which to assess violations of the criteria for aquatic weeds and algae including: documented reports of invasive aquatic plants that dominate the

⁴ Available at <http://www.deq.state.or.us/wq/assessment/2010DataInfo.htm>

⁵ Available at <http://www.deq.state.or.us/wq/assessment/forms0406.htm>

assemblage and have a harmful effect and health advisories issued by the Oregon Department of Human Services. *See* 2012 Methodology at 24. In fact, this parameter is the only one that under the section “data requirements” lists “information” as a category of “data” that DEQ accepts. Likewise, DEQ has used and continues to use fish consumption health advisories issued by the Oregon Department of Human Services as the basis for 303(d) listing. *Id.* at 58. But these are the only two instances in which DEQ uses information alone.

Second, contrary to EPA’s guidance, Oregon neither accepted new data and information submitted by the public in response to the proposed 2010 list nor considered those new data and information submissions in completing its 2012 list. When NWEA submitted comments on Oregon’s so-called Phase I 303(d) list for 2010, we stated that “[o]ur comments on the listing methodology should be construed as comments . . . on the proposed § 303(d)(1) list.” NWEA, Letter to DEQ Re: Phase I – Oregon 2010 Integrated Report; CWA 303(d) List (Dec. 15, 2010) (hereinafter “NWEA 2010 Comments”) at 1. In response, DEQ wrote that it “did not solicit comments on the methodology during the public comment period. Some comments received during the public comment period pertain to the Methodology.” DEQ, Response to Comments on Oregon’s Draft 2010 Integrated Report (Jan. 2011) at 2 (hereinafter “2010 Response to Comments”).⁶ As a result, DEQ ignored many submissions of data or information submitted in the NWEA comments. For example, NWEA stated that DEQ was required to use data and information for listing waters impaired by temperature and dissolved oxygen, *id.* at 4; invasive animal species, *id.* at 13-14; growth of reed canarygrass, *id.* at 15-16; the decline of the Oregon spotted frog as an existing use protected by Oregon’s antidegradation policy, *id.* at 16-17; invasions of the New Zealand mudsnail in Oregon rivers, *id.* at 17-18; NPDES discharge permit information on the use of chemicals for removal of weeds, *id.* at 18; information from the Oregon Beach monitoring program, *id.* at 19; sewage spill information, *id.* at 19; data and information pertaining to sedimentation including “aquatic community status, biomonitoring reference sites, or fishery data,” “cobble imbeddedness or percent fines,” and “impairment of spawning areas that would otherwise be available and suitable for spawning,” *id.* at 20; “wildlife studies that demonstrate that levels of toxics are causing adverse effects to health and reproductivity of species such as mink, otter, eagles, falcons, and other piscivorous birds and mammals,” *id.* at 23; various named studies on toxic residue and effects on the uses of eagles, mink and otter and contaminated sediment in the Lower Columbia River, *id.* at 23; data from the Superfund site in the Portland Harbor, *id.* at 23-24; “studies [in the possession of DEQ] that include data reported as tissue residue, sediment contamination, reproductive failure and other adverse effects on fish and wildlife . . . [including] the Bi-State Lower Columbia River Water Quality Program, U.S. Fish & Wildlife Service, the National Marine Fisheries Service, the US Geological Survey, and academic institutions, among others,” *id.* at 24; information on impairments caused by excess turbidity without turbidity data, *id.* at 25; data and information regarding candidate species, as evidence of beneficial use impairment, *id.* at 28; NMFS Comprehensive Status Reviews, recovery plans, and monitoring of plan implementation, *id.* at 28; USF&WS data on “toxic contaminants present in sediments and tissue of invertebrates, fish, and wildlife and evidence of beneficial use non-support” as well as information on the ESA-listing status of aquatic species and wildlife, *id.* at 28; data and information from the Rare, Threatened and Endangered Species of Oregon by the Oregon Biodiversity Information Center at the Institute for Natural Resources, Portland State University as evidence of aquatic and aquatic-

⁶ Available at <http://www.deq.state.or.us/wq/assessment/docs/2010ResponseToComments.pdf>

dependent species on the verge of extirpation in locations in Oregon, *id.*; and sources of information on impairment of beneficial uses including,

closures of recreational and commercial shellfish harvesting beds; the threatened and endangered status of species under the federal Endangered Species Act, populations listed based on the Oregon Endangered Species Act (ORS 496.171-496.192), populations of aquatic species that have been locally extirpated, impaired populations such as populations with reproductive organ deformities and evidence of reproductive impairment, including aquatic-dependent mammals, reptiles, amphibians, fish, and birds,

id. at 11. DEQ dismissed all of these references to specific and general sources of data and information, much of which are in the possession of DEQ or readily available on agency and academic websites, terming them “comments on its methodology” which it then could – and subsequently did – ignore in their entirety. DEQ did not proceed to consider these comments in preparing its proposed 2012 list, as required by EPA guidance as a method of meeting the regulations, but, rather, continued to ignore them as irrelevant. EPA 2006 Guidance at 32.

Since DEQ did not accept non-data submissions, i.e., information submissions, in its “call for data” and did not accept data and information submissions in requesting comments on its public review of its proposed 2010 303(d) list, and, moreover, has failed to consider previous comments on the 2004 proposed list regarding readily available data and information it is required to use that was provided to it in 2010, and since it did not prepare a list in 2008, DEQ has not considered any information provided from outside the agency since at least its 2004 list, for which comments closed November 7, 2005, with the exception of the Oregon Health Authority. *See* DEQ, Response to Comments on Oregon’s Draft 2004/2006 Integrated Report at 1.⁷

Third, regardless of whether NWEA or others had or had not provided a list of sources of data and information on water quality, designated and existing use impairment, DEQ was obligated to obtain the readily available data and information itself. *See* EPA 2006 Guidance at 32. For example, it begs credulity for DEQ to ignore data such as that from the Portland Harbor Superfund project and the information from that project in which risks to designated uses, such as fish, wildlife and human health, were evaluated. *See* discussion *infra*.

Fourth, DEQ did not “actively solicit” agencies and academic institutions for data and information. An email soliciting submission of data is not an active solicitation in the meaning of the EPA regulations. There are several reasons for this. The “call for data” has been too infrequent, of too short a duration, and makes clear that DEQ does not accept data or information on designated use support, or information of any kind. DEQ’s failure to use readily available data and information that is easily accessed on agencies’ websites makes it abundantly clear that DEQ had no intention of using any additional information of the same kind had agencies taken the time to provide it. Additionally, DEQ’s rejection of data submitted from the City of Salem, 2012 Methodology at 10, concerning parameters on which its “call for data” did not focus, demonstrates that had agencies provided data or information outside the geographic and parameter focus areas, DEQ would not have used it. There is no reason why an agency that collects data and information on fish and wildlife, for example, would provide that data and

⁷ Available at <http://www.deq.state.or.us/wq/assessment/docs/rtc0406.pdf>

information to DEQ when it is clear that DEQ will not consider it. DEQ's own "call for data" and its narrow interpretation of its obligations to develop an adequate 303(d) list severely undermine the likelihood that outside parties would take the considerable time to compile data and information that was, without a doubt, going to be rejected. Further, there is no evidence that DEQ solicited agencies and research institutions by letter or telephone call with the exception of the USGS.

Last, DEQ's methodology contains no reference to listing of waters because they have been identified as "threatened" contrary to EPA regulations. 40 C.F.R. § 130.7(b)(5)(i). DEQ's database of waters does not include any method for the public to assess whether DEQ has used waters identified as "threatened" as the basis for 303(d) listing. *See* DEQ, Water Quality, Water Quality Assessment - Oregon's Draft 2012 Integrated Report Assessment Database and 303(d) List (hereinafter "DEQ Database").⁸ Therefore it can be deduced that Oregon has listed precisely zero waters that have been listed as threatened.

B. Oregon's Purported Rotating Basin Approach is an Incomplete Assessment of State Waters

1. EPA Regulations and Guidance Pertaining to the Rotating Basin Approach

EPA's 2006 Guidance states that:

EPA is aware that many states have turned to the rotating basin strategy as a technically sound approach for making assessment determinations of the state's waters. In this approach, *the available monitoring resources are concentrated or targeted in one portion of the state for a specified period of time, thus allowing for data to be collected and assessed in a spatially and temporally focused manner.* Over time, every portion of the state is targeted for this *higher resolution monitoring* and assessment effort (often over a five-year period), however the state must consider all existing and readily available data and information during the development of its 2006 Integrated Report, regardless of where in the state the data and information were generated.

Id. at 32 (emphasis added). Thus, in 2006 EPA made clear that the use of the so-called rotating basin approach was intended to focus monitoring resources in a concentrated fashion, with assessment tied to that monitoring, and in addition that states that chose to use this approach were not relieved of their obligation to conduct a complete statewide assessment. In its 2010 guidance, EPA discussed the rotating basin approach with more specificity. Again, EPA emphasized monitoring, stating that this approach would "allow[] for data to be collected and assessed in a spatially and temporally 'focused' manner. Over time, every portion of the state is targeted for monitoring and assessment (often over a four or five year period)." 2010 Guidance at 4.

EPA also explained that if states sought to use the rotating basin approach they should describe the approach, including "how the approach is incorporated into the State's monitoring and

⁸ Available at <http://www.deq.state.or.us/wq/assessment/rpt2012/search.asp>.

assessment methodology” including such concerns as the schedule for each basin and the type of data and information being solicited in the targeted basin. *Id.* EPA also reiterated that “States will, consistent with their assessment and listing methodologies, continue to consider all existing and readily available data and information in making water quality attainment determinations,” and that “States using a rotating basin approach will continue to submit a 303(d) list/IR on a biennial basis that reports on the water quality status of all waters in the State.” *Id.* Likewise EPA stated in later guidance that “EPA expects that States will continue to submit their IR data to EPA in a manner that provides a *full refresh* of the water quality attainment status of all assessed waters and documents the availability of data and information for each water.” 2012 Guidance at 3 (emphasis added).

2. Oregon’s Purported Rotating Basin is Inconsistent with EPA Regulations and Guidance

Oregon’s use of its own take on the so-called rotating basin approach should be viewed in the context of its past lists. DEQ produced an extremely limited assessment for its 2010 list which EPA had to amend, produced no list whatsoever in 2008 and 2006, leaving the last purportedly complete list for 2004. For its 2012 list, DEQ states that it “prioritized the call for data to focus on two areas in Oregon – the Willamette Basin and the Umatilla Basin. DEQ also focused on receiving data for toxic substances in order to apply updated human health water quality standards to assess water quality.” DEQ, Oregon’s 2012 Integrated Report.⁹ DEQ states further that its 2012 303(d) list was further narrowed to encompass only:

- Assessments for dissolved oxygen and toxic pollutants in the Willamette Basin and Umatilla Basin
- Assessment of toxic pollutant data from throughout the state using revised human health criteria and other revised criteria

Id. Thus, in fact, DEQ has not used a “rotating basin” approach as described by EPA but instead has produced an admittedly inadequate list to add to a long history of inadequate lists.

Contrary to the EPA guidance that allows states to use a rotating basin approach, DEQ has not explained its rotating basin approach other than to claim, without description, that it is using one: “DEQ is piloting the rotating basin approach described in EPA’s 2009 memorandum. . . . to evaluate the viability of synchronizing the 303(d) assessment with a watershed approach.” 2012 Methodology at 2. DEQ claims that it is “focusing on three basins per year (with the objective of evaluating the state’s 15 basins over a five year period.” *Id.* Its further description has a generic and wholly unsubstantiated claim that Oregon’s rotating basin approach “follows the principles of adaptive management and the watershed approach.” *Id.* at 7. Hinting at the use of adaptive management is a suggestion that Oregon’s purported rotating basin approach includes monitoring to drive that adaptation yet there is nothing in DEQ’s monitoring program, NPDES permitting program (which is nearly moribund), TMDL development program (also nearly moribund), or nonpoint source control program (nearly nonexistent) that uses adaptive management to control point or nonpoint sources based on information that is gathered to, as DEQ states, “improve practices over time.” Nor is there any indication here or elsewhere, e.g. the basin reports discussed *infra*, to suggest that Oregon is conducting its monitoring in any

⁹ Available at <http://www.oregon.gov/deq/WQ/Pages/Assessment/2012report.aspx>

different way than it has otherwise. But perhaps this discussion of adaptive management is intended as a smokescreen for the fact that DEQ has simply failed to meet EPA's expectations of describing its rotating basin approach.

In fact, DEQ has not set out a schedule for the more targeted monitoring and assessment of future basins, nor has it even explained that its monitoring program has been, is, or will be focused on specified basins. It is clear that EPA's intention for the rotating basin approach is to allow states to focus monitoring resources, not to limit their assessment to only certain basins. And EPA further clarifies that intent by pointing out that it expects state to do a "full refresh" of their assessment at the statewide level. *See* 2012 Guidance at 3. DEQ does not get a pass on issuing a complete 303(d) list based on its claim to be using a rotating basin approach.

DEQ further claims that its rotating basin approach is tied to its "basin reports," stating that it has "conducted two rounds of Basin Reports addressing three basins each; and is working toward finalizing the third round of Basin Reports covering the Willamette Basin and the Umatilla Basin." 2012 Methodology at 2.¹⁰ This is a vague reference to basin reports it has completed for four basins in Oregon: the North Coast Basin,¹¹ completed March 2011, the Deschutes Basin,¹² completed September 2011, the Rogue Basin,¹³ completed September 2011, and the Powder Basin,¹⁴ completed November 2013. *See* DEQ, Assessing Oregon's Basins.¹⁵ Not only does DEQ's website demonstrate that it has completed four basin reports, not the six¹⁶ that it claims to have completed, but DEQ has not used any of the four or the six recently completed basin reports for a more focused 303(d) assessment in either its 2010 or its proposed 2012 303(d) lists as one would expect if a state were both using a rotating basin approach and linking the use of that approach to its basin reports. In fact, other than an assertion that DEQ is currently working on the two basins it focused on its 2012 303(d) list, it is quite clear that DEQ has not made this linkage and that its rotating basin focus is merely a convenient excuse for proposing an extremely truncated 2012 list. Not only has DEQ done no specific assessment pertaining to the North Coast, Deschutes, Rogue, Powder, and two unknown additional basins with its 303(d) list

¹⁰ DEQ excuses itself from even meetings its asserted goal in 2012 for the number of basins it will assess "because the Willamette basin is very large, DEQ is conducting basin assessments for two basins, the Willamette and the Umatilla." 2012 Methodology at 2. While the Willamette may be very large, it is equally true that DEQ has limited its so-called focused assessment in the Willamette to only data on dissolved oxygen and some toxic pollutants.

¹¹ Available at <http://www.deq.state.or.us/wq/watershed/Docs/NorthCoastPlan.pdf>

¹² Available at <http://www.deq.state.or.us/wq/watershed/Docs/DeschutesPlan.pdf>

¹³ Available at <http://www.deq.state.or.us/wq/watershed/Docs/RoguePlan.pdf>

¹⁴ Available at <http://www.deq.state.or.us/wq/watershed/Docs/powderSRAP.pdf>

¹⁵ Available at <http://www.deq.state.or.us/wq/watershed/watershed.htm>.

¹⁶ DEQ's most recent nonpoint source assessment report states that it will complete "Basin Reports for three basins per year: South Coast, Clackamas/Sandy, Powder/Burnt Basins by 6/30/2013." DEQ, Oregon Nonpoint Source Pollution Program 2012 Annual Report (June 2013) at 18. It also states that DEQ has "begun working" on plans for the "Umatilla Basin, Tualatin Subbasin, and Upper Willamette Area," *id.* at 59, which is not consistent with assertions made by DEQ related to this proposed 303(d) list.

for which it has completed basin reports, but there is nothing in the four completed reports that indicates that DEQ did any additional monitoring to support the completion of those reports. Instead, DEQ is simply attempting to limit the geographic scope of its 2012 303(d) list in violation of the regulations and contrary to explicit EPA guidance.

A review of DEQ’s 2012 methodology for the current proposed list demonstrates that DEQ has not completed a “complete refresh” of its already limited list.

Parameter	Included in 2012 report?	Last evaluated?
Aquatic Weeds or Algae	No	2010
E. coli bacteria	No	EPA 2010
Enterococci bacteria	No	2010
fecal coliform bacteria	No	EPA 2010
biocriteria	No	2010
Chlorophyll a	No	EPA 2010
dissolved oxygen	Yes, limited geographically	NA
pH	No	EPA 2010
sedimentation	No	EPA 2010
temperature	No	EPA 2010
total dissolved gas	No	2004
toxic substances	Some, limited geographically	NA
turbidity	No	2010

See 2012 Methodology. Moreover, its rejection of the City of Salem’s submitted data on the basis that the data covered parameters not included in its limited focus further demonstrates that the proposed 2012 list is incomplete.

C. Oregon Uses an Arbitrary Temporal Limit on “Available Data”

1. EPA Guidance on Temporal Limits to Data and Information

EPA’s 2006 guidance provides the most in-depth discussion of the allowed temporal and spatial limits to data and information. EPA points out that states and EPA must rely on extrapolation from individual data points because even in the best of circumstances “the percentage of all possible locations in time and space from which data has been collected is very, very small.” 2006 Guidance at 33. For this reason, all data and information should be used for assessments “unless a specific technical rationale is provided to support a determination that such data and information should not be used (see 40 CFR 130.7(b)(6)(iii-iv)).” *Id.* Because the burden rests

on states to demonstrate that data and information should not be used and because of a general paucity of research information, EPA urges states to evaluate “contextual information [that] might indicate that levels of a pollutant under study are likely to have remained fairly constant over a certain period.” *Id.* at 34. EPA elaborates that,

data should not automatically be treated as unrepresentative of relevant segment conditions solely on the basis of its age without supporting information indicating that the data are not a good indicator of current conditions. However, older data should be evaluated with care. For example if the most recent data for a particular assessment unit is 10 years old, and that data indicated that average and/or peak conditions in a segment at that time were worse than those specified by an applicable WQC; and, since that time, all the sources of the pollutant in question had been required to dramatically lower the levels of the pollutant in their effluent, and few changes that would lead to increased loadings of the pollutant had taken place in the watershed, it could be reasonable to assume that the segment was now meeting the WQC for that pollutant. By contrast, if 15 year old data indicated that a segment was then just barely meeting WQS for several pollutants associated with urban runoff, and the watershed of that segment had since that time undergone considerable urbanization, a conclusion that the segment was no longer meeting WQC for some or all of those pollutants could be warranted.

Id. at 35.

2. Oregon Fails to Justify its Arbitrary Temporal Limits

In its 2012 proposed list, DEQ limits the data it uses to data collected since 2000. *See, e.g.*, 2012 Methodology at 50 (toxics), 39 (dissolved oxygen). This approach is arbitrary for several reasons. First, as explained *infra*, it is inconsistent with an evaluation of Tier I protections of the antidegradation policy, a required evaluation that dates to November 28, 1975. 40 C.F.R. § 130.7(b)(3). Second, there is no difference between data that DEQ obtained and evaluated previously which was used as the basis for a 303(d) listing and data that it received later in time but which would have been used as the basis for a listing had it been properly and timely obtained. In other words, DEQ’s failure to obtain all readily available data and information for past listings cannot be used today as a rationale for not using the data and information because now it is, ostensibly, too old. Third, the fact that DEQ has used entirely arbitrary temporal limits in the past is not a rational basis for continuing to use such arbitrary temporal limits. This is even more important for a state that entirely missed its 2006 and 2008 lists, evaluated only some data and information in its 2010 list, and is for its proposed 2012 list evaluating only some parameters for a very limited portion of the state. For example, after having failed to issue a 2008 list, for its 2010 list DEQ stated that “[d]ata from continuous sampling data loggers, which is primarily data for stream temperature, were not retrieved for the 2010 evaluation.” 2010 Methodology at 5-6. That meant the last retrieval was done in 2004. For 2012 DEQ is proposing to, once again, forgo looking at any temperature data. Thus, by the 2014 list, DEQ will have failed or refused to evaluate temperature data since its 2004 list and could continue to invoke the temporal limit on data it set out in its current methodology of “[c]ontinuous temperature data collected since 2001,” 2012 Methodology at 54, or another similar 10-year period without providing a rationale.

Contrary to the requirements set out in 40 C.F.R. § 130.7(b)(3), DEQ has not provided a “rationale for any decision to not use any existing and readily available data and information.” Specifically with regard to the only data DEQ evaluated for its proposed 2012 list, DEQ did not provide a rationale for not using dissolved oxygen and toxic substances data that predate the year 2000.

D. DEQ Fails to Use Data Submitted to the Agency as Part of the Volunteer Monitoring Program

According to DEQ, its volunteer program “supports organizations in Oregon interested in generating water quality data of known quality. In return, organizations provide the data they generate to DEQ so it can be made available for public use.” DEQ, Laboratory Environmental Assessment Division, 2011-2012 Volunteer Water Quality Data Status Report (Feb. 2013) at 1.¹⁷ For example, by “the end of calendar year 2012, DEQ received a total of 422 datasets as part of this program.” *Id.* DEQ provides various nonprofit organizations with equipment, *id.* at 2, and the data that result are loaded into DEQ’s LASAR database, *id.* at 3. The problem is that DEQ is chronically behind in uploading these data to the database upon which it relies to issue its proposed 303(d) list. *See, e.g., id.* at 6-7 (discussing backlog), 18-26 (status of individual data sets). This problem is compounded when DEQ narrows the scope of the 303(d) list to only certain basins and only certain parameters because it postpones DEQ’s use of readily available data for its assessments including but not limited to the proposed 2012 303(d) list.

Data in the possession of DEQ are clearly existing and readily available data, however we hereby submit to DEQ all data submitted by partners in its volunteer monitoring program that are readily available to DEQ although we have no access to them and they are not in the LASAR database. Specifically, in addition, we re-submit data from Columbia Riverkeeper for the years 2009, 2010, 2011, 2012, and 2013. *See* Columbia Riverkeeper, DEQ 2009 DATA final submitted 12.10.10; DEQ cont. temp. log data 2009 final submitted 1_8_10; DEQ_2010_DATA_6_21_11 Submitted; DEQ cont. temp log data 2010 ready to submit; DEQ 2011 data submitted 1_27_12; 2011 Continuous temperature submitted 1.27.11; DEQ 2012 data 6 26 13; and DEQ 2013 data 9.18.13.

E. Commenters’ Submission of Readily Available Data and Information

As explained above, EPA regulations require the Department to obtain and use “all existing and readily available water quality-related data and information” by “actively solicit[ing]” local, state and federal agencies, the public, and academic institutions for research they are conducting or reporting, among other sources. 40 C.F.R. § 130.7(b)(5). DEQ has failed to demonstrate that it has, in fact, actively solicited all sources of existing and readily available information and data. Nonetheless, it has failed to use all available data and information that exist on impacts to water quality and beneficial uses including some information DEQ has in its possession or could have readily obtained. Moreover, as past proposed lists have not included DEQ sources of data and information that the public and EPA could review, contrary to 40 C.F.R. § 130.7(b)(6)(ii), we can only guess at what sources the Department has not used based on what appears to be missing from its listings. For the 2012 proposed list, DEQ has made it simple by clarifying that it used only dissolved oxygen and water column data for some toxic contaminants from its own and the

¹⁷ Available at <http://www.deq.state.or.us/lab/wqm/docs/08-LAB-011.pdf>

USGS database for the Willamette and Umatilla basins, statewide mercury tissue samples, 2012 Methodology at 9, and data on 17 toxic substances submitted by the City of Gresham, *id.* at 10. We also know that DEQ rejected data submitted by the City of Salem that apparently it found otherwise acceptable because the data involved “[g]eneral parameters – Parameters not evaluated in 2012 IR.” *Id.*

We hereby submit the following data and information, much of which was submitted by public comments on December 15, 2010, as discussed *supra*. See NWEA 2010 Comments.

- Oregon Invasive Species Council, Viral Hemorrhagic Septicemia Virus (VHSV) Risk Assessment for Oregon 2010;¹⁸
- Oregon Invasive Species Council, 100 Most Dangerous Invaders to Keep Out;¹⁹
- Oregon Invasive Species Council, Pest Risk Assessment for Asian kelp in Oregon;²⁰
- Oregon Invasive Species Council, Pest Risk Assessment for *Spartina spp.* in Oregon;²¹
- Oregon Invasive Species Council, Pest Risk Assessment for Rock Snot (*Didymo*) in Oregon;²²
- Oregon Department of Agriculture, Plant Pest Risk Assessment for Yellow Floating Heart,
- *Nymphoides peltata* 2005 (Rev. 2011);²³
- Oregon Department of Agriculture, Oregon Weedmaper, Oregon Noxious Weed Distribution;²⁴
- Oregon Department of Agriculture, ODA Plant Programs, Noxious Weed Control, yellow floating heart (*Nymphoides peltata*);²⁵
- Oregon Invasive Species Council, Pest Risk Assessment for Mitten Crabs in Oregon;²⁶
- U.S.G.S., Woods Hole Coastal and Marine Science Center, *Didemnum vexillum* -

¹⁸ Available at http://www.oregon.gov/oisc/docs/pdf/vhs_ra.pdf

¹⁹ Available at http://www.oregon.gov/OISC/Pages/most_dangerous.aspx

²⁰ Available at http://www.oregon.gov/oisc/docs/pdf/ra_asiankelp.pdf

²¹ Available at http://www.oregon.gov/oisc/docs/pdf/calendar_october_assessment09.pdf

²² Available at http://www.oregon.gov/oisc/docs/pdf/calendar_feb09_assessment.pdf

²³ Available at http://www.oregon.gov/ODA/PLANT/WEEDS/docs/pdf/ra_yellowfloatingheart2013.pdf

²⁴ Available at <http://www.oregon.gov/ODA/PLANT/WEEDS/WEEDMAPPER/pages/maps.aspx>

²⁵ Available at http://www.oregon.gov/ODA/PLANT/WEEDS/pages/profile_yfloatingheart.aspx

²⁶ Available at http://www.oregon.gov/oisc/docs/pdf/calendar_january_assesment.pdf

- Oregon Coast Occurrences and Images;²⁷
- U.S.G.S., Woods Hole Coastal and Marine Science Center, Didemnum vexillum, Triangle, Umpqua River mouth, Oregon, Images;²⁸
- Oregon Invasive Species Council, 100 Most Dangerous Invaders to Keep Out of Oregon in 2013;²⁹
- Oregon Invasive Species Council, Risk Assessment for Chinese Water Spinach (Ipomoea aquatica) in Oregon;³⁰
- Oregon Invasive Species Council, Oregon Invasive Species Council Reports;³¹
- Oregon Invasive Species Online Hotline;³²
- Oregon Department of Fish and Wildlife, Oregon Conservation Strategy, Key Conservation Issues that Affect Species and Habitats Statewide, Issue 7: Global Climate Change³³
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, Aneides flavipunctatus;³⁴
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, Entosphenus minimus;³⁵
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, Entosphenus ridenatus;³⁶
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, Oregonichthys crameri;³⁷
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking

²⁷ Available at <http://woodshole.er.usgs.gov/project-pages/stellwagen/didemnum/htm/oregon.htm>

²⁸ Available at http://woodshole.er.usgs.gov/project-pages/stellwagen/didemnum/htm/oregon_triangle.htm

²⁹ Available at http://www.oregon.gov/oisc/docs/pdf/oisc_100worst.pdf

³⁰ Available at http://www.oregon.gov/oisc/docs/pdf/ipaq_ra.pdf

³¹ Available at <http://www.oregon.gov/oisc/Pages/reports.aspx>

³² Available at <http://oregoninvasiveshotline.org>

³³ Available at http://www.dfw.state.or.us/conservationstrategy/docs/document_pdf/Conservation_Issues_Doc.pdf

³⁴ Available at http://orbic.pdx.edu/documents/rank-forms/vertebrate/Aneides_flavipunctatus_state.pdf

³⁵ Available at http://orbic.pdx.edu/documents/rank-forms/vertebrate/Entosphenus_minimus_state.pdf

³⁶ Available at http://orbic.pdx.edu/documents/rank-forms/vertebrate/Entosphenus_tridenatus_state.pdf

³⁷ Available at http://orbic.pdx.edu/documents/rank-forms/vertebrate/Oregonichthys_crameri_state.pdf

- Form - State Rank, *Rana cascadae*;³⁸
Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, *Dumontia oregonensis*;³⁹
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, *Farula constricta*;⁴⁰
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, *Fluminicola*;⁴¹
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, *Fluminicola*;⁴²
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, *Fluminicola*;⁴³
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, *Juga*;⁴⁴
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, *Megomphix lutarius*;⁴⁵
- Portland State University, Oregon Biodiversity Information Center, Heritage Ranking Form - State Rank, *Physella virginea*;⁴⁶
- Portland State University, Oregon Biodiversity Information Center, Rare, Threatened, and Endangered Species of Oregon;⁴⁷
- Portland State University, Oregon Biodiversity Information Center, Rare Species Ranking Documentation;⁴⁸
- Portland State University, Oregon Biodiversity Information Center, Species Lists in PDF

³⁸ Available at http://orbic.pdx.edu/documents/rank-forms/vertebrate/Rana_cascadae_state.pdf

³⁹ Available at http://orbic.pdx.edu/documents/rank-forms/invertebrate/Dumontia_oregonensis_state.pdf

⁴⁰ Available at http://orbic.pdx.edu/documents/rank-forms/invertebrate/Farula_constricta_state.pdf

⁴¹ Available at http://orbic.pdx.edu/documents/rank-forms/invertebrate/Fluminicola_sp_3_srank.pdf

⁴² Available at http://orbic.pdx.edu/documents/rank-forms/invertebrate/Fluminicola_sp_11_srank.pdf

⁴³ Available at http://orbic.pdx.edu/documents/rank-forms/invertebrate/Fluminicola_sp_14_srank.pdf

⁴⁴ Available at http://orbic.pdx.edu/documents/rank-forms/invertebrate/Juga_sp_1_srank.pdf

⁴⁵ Available at http://orbic.pdx.edu/documents/rank-forms/invertebrate/Megomphix_lutarius_state.pdf

⁴⁶ Available at http://orbic.pdx.edu/documents/rank-forms/invertebrate/Physella_virginea_state.pdf

⁴⁷ Available at <http://orbic.pdx.edu/rte-species.html>

⁴⁸ Available at <http://orbic.pdx.edu/rare-info.html>

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- Oregon Natural Heritage Program, Native Wetland Plant Communicaites and Associated Sensitive, Threatened or Endangered Plant and Animal Species in Oregon, John A. Christy and Jonathan H. Titus (March 1997);⁵⁰
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- Oregon Department of Fish and Wildlife, Oregon Conservation Strategy, Habitat: Conservation Summaries for Strategy Habitats, Strategy Habitat: Riparian Habitats;⁵³
- Oregon Department of Fish and Wildlife, Oregon Conservation Strategy, Habitat: Conservation Summaries for Strategy Habitats, Strategy Habitat: Estuaries;⁵⁴
- Oregon Department of Fish and Wildlife, Oregon Conservation Strategy, Habitat: Conservation Summaries for Strategy Habitats, Strategy Habitat: Freshwater Aquatic Habitats;⁵⁵
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⁴⁹ Available at <http://orbic.pdx.edu/rte-species.html>

⁵⁰ Available at <http://orbic.pdx.edu/documents/DSLWETSPEC.pdf>

⁵¹ Available at http://orbic.pdx.edu/documents/wvepa_orig.pdf

⁵² Available at http://www.dfw.state.or.us/conservationstrategy/docs/document_pdf/b-habitat_13.pdf

⁵³ Available at http://www.dfw.state.or.us/conservationstrategy/docs/document_pdf/b-habitat_10.pdf

⁵⁴ Available at http://www.dfw.state.or.us/conservationstrategy/docs/document_pdf/b-habitat_4.pdf

⁵⁵ Available at http://www.dfw.state.or.us/conservationstrategy/docs/document_pdf/b-habitat_5.pdf

⁵⁶ Available at <http://nas.er.usgs.gov/queries/SpeciesList.aspx?Group=&Sortby=1&state=OR>

⁵⁷ Available at <http://nas.er.usgs.gov/taxgroup/mollusks/newzealandmudsnaildistribution.aspx>

⁵⁸ Available at http://www.coastalatlus.net/?option=com_jumi&view=application&fileid=14&Itemid=132

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- Columbia Basin Fish and Wildlife Authority, Contamination Ecology of Selected Fish and Wildlife of the Lower Columbia River, A Report to the Bi-State Water Quality Program (April 23, 1996);⁶²
- Columbia River Estuary Study Taskforce, Historic Habitats of the Lower Columbia River (Oct. 1995);⁶³
- Lower Columbia River Bi-State Program, Reconnaissance Survey of the Lower Columbia River; Task 2 Summary Report: Inventory and Characterization of Pollutants (June 26, 1992);⁶⁴
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- Lower Columbia River Bi-State Program, Assessing Human Risks from Chemically Contaminated Fish in the Lower Columbia River: Risk Assessment (May 1, 1996);⁶⁷
- Lower Columbia River Bi-State Program, Assessing Health of Fish Species and Fish

⁵⁹ Available at http://or.water.usgs.gov/pubs_dir/Pdf/columbia_bistate.pdf

⁶⁰ Available at <http://water.usgs.gov/nasqan/docs/clmbfact/clmbfactsheet.html>

⁶¹ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/Sec_3_3_1b.pdf

⁶² Available at http://www.estuarypartnership.org/sites/default/files/resource_files/LCRBiStateFWS3.3.1a_CBFWA_WILD_ContamEcolSelectedFish%26WildinLCR96.pdf

⁶³ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/LCRBiStateFWS3.5.5b_Graves_HistoricHabitatofTheLCR95.PDF

⁶⁴ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/TC8526_02_reconsurvey1_2_task2c.pdf

⁶⁵ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/Additions_A_health_analysis.pdf

⁶⁶ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/TC8526_06_reconsurvey2_1e_vol_1.pdf

⁶⁷ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/TC9968_05_sec4_1d.pdf

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- NMFS, 5-Year Review: Summary & Evaluation of Upper Willamette River Steelhead and Upper Willamette River Chinook (2011);⁷⁶
- NMFS, 5-Year Review: Summary & Evaluation of Middle Columbia River Steelhead

⁶⁸ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/Sec_3_3_2b.pdf

⁶⁹ Available at <http://www.fws.gov/pacific/Fisheries/sphabcon/Lamprey/pdf/Best%20Management%20Practices%20for%20Pacific%20Lamprey%20April%202010%20Version.pdf>

⁷⁰ Available at http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/southern_oregon_northern_california/soncc_plan_draft_2012_entire.pdf

⁷¹ Available at http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/willamette_lowercol/lower_columbia/final_plan_document_s/final_lcr_plan_june_2013_-corrected.pdf

⁷² Available at http://www.dfw.state.or.us/fish/CRP/docs/lower-columbia/OR_LCR_Plan%20-%20Aug_6_2010_Final.pdf

⁷³ Available at http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/interior_columbia/middle_columbia/mid-c-oregon.pdf

⁷⁴ Available at http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/willamette_lowercol/willamette/will-final-plan.pdf

⁷⁵ Available at http://www.westcoast.fisheries.noaa.gov/publications/status_reviews/salmon_steelhead/multiple_species/5-yr-lcr.pdf

⁷⁶ Available at http://www.westcoast.fisheries.noaa.gov/publications/status_reviews/salmon_steelhead/multiple_species/5-yr-urw.pdf

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- Lower Columbia River Bi-State Program, Reconnaissance Survey of the Lower Columbia River, Laboratory Data Report, Vol. 4: Tissue Data, Excluding Dioxins and Furans (1992);⁸⁴
- Lower Columbia River Bi-State Program, Reconnaissance Survey of the Lower Columbia River, Section 2.1 Reconnaissance Survey. Task 6 Vol. 3 (1992);⁸⁵
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⁷⁷ Available at http://www.westcoast.fisheries.noaa.gov/publications/status_reviews/salmon_steelhead/steelhead/5-yr-mcr.pdf

⁷⁸ Available at http://www.westcoast.fisheries.noaa.gov/publications/status_reviews/salmon_steelhead/coho/2011_status_review_southern_oregon_northern_california_coast_coho.pdf

⁷⁹ Available at <http://pubs.usgs.gov/of/2012/1256/pdf/ofr20121256.pdf>

⁸⁰ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/Additions_C_id_of_pollutant_sources.pdf

⁸¹ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/TC8526_01_reconsurvey1_1_task1d.pdf

⁸² Available at http://www.estuarypartnership.org/sites/default/files/resource_files/Sec_3_3_3a.pdf

⁸³ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/TC8526_06_reconsurvey2_1d_vol_2.pdf

⁸⁴ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/TC8526_06_reconsurvey2_1d_vol_4.pdf

⁸⁵ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/TC8526_06_reconsurvey2_1e_vol_3.pdf

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- Lower Columbia Estuary Partnership, Lower Columbia River and Estuary Ecosystem Monitoring; Water Quality and Salmon Sampling Report (2007);⁹⁵

⁸⁶ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/TC8526_06_reconsurvey2_1d_vol_3.pdf

⁸⁷ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/TC8526_06_reconsurvey2_1d_vol_6.pdf

⁸⁸ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/TC8526_06_reconsurvey2_1d_vol_5.pdf

⁸⁹ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/TC8526_06_reconsurvey2_1d_vol_7.pdf

⁹⁰ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/Sec_3_3_4a.pdf

⁹¹ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/Final_Columbia%20EMAP.pdf

⁹² Available at http://www.estuarypartnership.org/sites/default/files/resource_files/Johnson%20EMPSWG_2012_Oct28.pdf

⁹³ Available at http://www.estuarypartnership.org/sites/default/files/resource_files/Roegner%20LCREP%202013%20DO.pdf

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II. OREGON FAILS TO USE THE LEGAL DEFINITION OF WATER QUALITY STANDARDS IN ASSESSING ITS WATERS

DEQ has failed to make 303(d) listings based on waters' noncompliance with narrative criteria, beneficial use support, and antidegradation policies and requirements – all of which are essential and required components of water quality standards. As a result, DEQ has failed to list waters of the state that are suffering from problems due to high levels of toxics, turbidity, temperature, habitat impairment, cumulative and synergistic impacts of multiple pollutants, pollutants without criteria, impairments by pollutants lower than existing numeric criteria, and impaired uses not yet associated with pollutants, to name a few. These water quality problems are directly responsible for impairment of the state's most sensitive beneficial uses which the state's water quality standards and the application of section 303(d) are intended to protect.

In some cases, the methodology correctly states the law concerning aspects of the 303(d) listing process and then fails to address the law. This is not an uncommon DEQ tactic. For example, nearly every TMDL issued by DEQ does the same thing. Specifically, the Methodology states that water quality standards consist of key elements, namely designated uses, narrative and numeric criteria, and antidegradation requirements. *See, e.g.*, 2012 Methodology at 1. DEQ correctly acknowledges that it must apply the policy of independent applicability to be consistent with EPA policy and the Clean Water Act. *Id.* at 11. However, independent applicability means more than making a bald statement; it requires a methodology to do so. Nowhere does the methodology explain how, if at all, DEQ makes assessments and 303(d) listings on the basis of data and information that demonstrate Oregon's waters provide less than full support of designated uses. For example, DEQ's methodology fails to demonstrate how, with the exception of the numeric criteria, these key elements are addressed by Oregon in its listing and assessment process. In fact, they are not. DEQ cites a description of Category 5 of EPA's listing approach which includes "[d]ata indicate a designated use is not supported[.]" *Id.* In order to evaluate whether designated uses are not supported, the Department must have a methodology for evaluating the data and information. It does not. Instead, the Department uses narrative criteria and, on rare occasion, designated use support as methods of supporting its listing process for certain parameters. Generally speaking these are not incorrect interpretations of why certain waters must be listed for certain parameters. The problem comes in that DEQ does not understand that it must list on the basis of the key elements of water quality standards as well. In other words, DEQ must list on the basis of whether toxics are present in toxic amounts and/or causing less than full support of designated uses, and/or failing to protect existing uses, not just cite to the narrative criteria for toxics as a basis for using fish consumption advisories.

A. The Legal Definition of Water Quality Standards and Listing Requirements for the 303(d)(1) List

Water quality standards are defined as the designated beneficial uses in combination with the numeric and narrative criteria to protect those uses and an antidegradation policy. 40 C.F.R. § 131.6. Numeric criteria adopted in water quality standards are required to be promulgated to protect the "most sensitive use." 40 C.F.R. § 131.11(a)(1). However, since this is not always possible, the task of evaluating whether standards have been met also requires an assessment of the impacts to beneficial uses. The U.S. Supreme Court decision in *PUD No. 1 of Jefferson County v. Washington Department of Ecology*, 114 S.Ct. 1900 (1994) underscored the importance of protecting beneficial uses as a "complementary requirement" that "enables the States to ensure that each activity – even if not foreseen by the criteria – will be consistent with

the specific uses and attributes of a particular body of water." *Id.* at 1912. The Court explained that numeric criteria "cannot reasonably be expected to anticipate all the water quality issues arising from every activity which can affect the State's hundreds of individual water bodies." *Id.*

This legal definition is mirrored in EPA's implementing regulations for section 303(d) of the Clean Water Act. Specifically, these regulations require that

For the purposes of listing waters under §130.7(b), the term "water quality standard applicable to such waters" and "applicable water quality standards" refer to those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements.

40 C.F.R. § 130.7(b)(3). When EPA adopted these regulations, it made clear its expectations of states:

[I]n today's final action the term "applicable standard" for the purposes of listing waters under section 303(d) is defined in § 130.7(b)(3) as those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses and antidegradation requirements. In the case of a pollutant for which a numeric criterion has not been developed, a State should interpret its narrative criteria by applying a proposed state numeric criterion, an explicit State policy or regulation (such as applying a translator procedure developed pursuant to section 303(c)(2)(B) to derive numeric criteria for priority toxic pollutants), EPA national water quality criteria guidance developed under section 304(a) of the Act and supplemented with other relevant information, or by otherwise calculating on a case-by-case basis the ambient concentration of the pollutant that corresponds to attainment of the narrative criterion. Today's definition is consistent with EPA's Water Quality Standards regulation at 40 CFR part 131. EPA may disapprove a list that is based on a State interpretation of a narrative criterion that EPA finds unacceptable.

EPA, Final Rule: Surface Water Toxics Control Program and Water Quality Planning and Management Program, 57 Fed. Reg. 33040, 33045 (July 24, 1992). EPA's listing guidance is consistent with both its regulation and the intent expressed by EPA at its adoption of the regulation in 1992.

- 1. Oregon Fails to List Waters for Not Supporting Designated Uses**
 - a. *Oregon Implies That it Considers Designated Use Support***

Notwithstanding the clarity of the law, the Department has proposed to make very few listings on the basis of impairment of designated uses. But DEQ does go out of its way to create the appearance of compliance. In its 2012 methodology, DEQ states that it will place waters in Category 3B when there is "[p]otential concern when data are insufficient to determine use support but some data indicate non-attainment of a criterion, in Category 4 when "[d]ata indicate that at least one designated use is not support (sic) but a TMDL is not needed," and Category 5 when "[d]ata indicate a designated use is not supported or a water quality standard is not attained

and a TMDL is needed.” Methodology at 11. In a footnote, DEQ claims it “uses the policy of independent applicability to assess attainment of water quality standards[.]” *Id.* DEQ further claimed that it considers the “factor” of “designated beneficial uses of a water body, particularly sensitive fish uses.” *Id.* at 13. Likewise, it provided a table “Defining Assessment Units and Status – Beneficial Uses Designated in Water Quality Standards” that suggests it evaluates designated use support, although the accompanying note indicates it likely only pertains to determining which temperature and dissolved oxygen criteria apply. Finally, DEQ states that it “assign[s] an assessment category to a water body . . . for specific parameters/pollutants, narrative and numeric criteria, and designated uses.” *Id.* at 23.

Yet, the DEQ methodology does not contain any section that describes how the state assesses the status of designated use support, particularly using data and information that are not water column data. It does list, under each pollutant or parameter the “beneficial uses affected.” *See, e.g., id.* at 24 (aquatic weeds affect the following uses: “Domestic and Industrial Water Supply, Irrigation, Livestock Watering, Fish and Aquatic Life, Fishing, Boating, Water Contact Recreation, Aesthetic Quality”). But there is no search parameter in its on-line assessment database for designated use impairment of any kind. And, there is no mention of evaluating designated use impairment in the methodology other than to support findings under individual criteria for pollutants or parameters, generally parameters with numeric criteria.

The methodology does in some limited instances indicate Oregon evaluates designated use support, albeit for limited purposes, i.e., only to determine exceedances of specified individual pollutants or parameters. Specifically, DEQ’s methodology indicates that it evaluates compliance with its turbidity standard on the following basis:

For impairments to beneficial use as drinking water supply, Public Water System operator indicates that high turbidity days (days with turbidity .5 NTU) are causing operational difficulty and source water data validate this impairment. The data are considered to validate an impairment if more than 45 high turbidity days per year occur for any year for which data are available.

Id. at 74. Likewise, DEQ will find a violation where there is a “fish consumption advisory issued for a specific water body based on pollutants in fish tissue issued by the Oregon Department of Human Services.” *Id.* at 58. DEQ suggests that in the past it has assessed designated use support for the effects of sedimentation including “aquatic community status, biomonitoring reference sites, or fishery data” but the current methodology makes clear that Oregon no longer does this. *Id.* at 51. Similarly, DEQ has evaluated designated use support of some aquatic life – namely freshwater macroinvertebrates such as insects, crustaceans, snails, clams, worms, and mites – in evaluating compliance with its biocriteria standard. *Id.* at 32. And the Methodology indicates that the agency uses “health advisories” to assess compliance with its aquatic weeds or algae narrative criterion. *Id.* at 24. Finally, DEQ makes clear that it does not evaluate designated use support for some indicator bacteria by stating that “[t]he Oregon Beach Monitoring Program may issue precautionary advisories based on heavy rainfall, flooding, or sewage spills. These advisories are not included in the data summarized in the assessment.” *Id.* at 29.

Put another way, DEQ does not assess designated support status for the following designated uses: water contact recreation, shellfish growing, domestic water supply, fish and wildlife, fishing, boating, aesthetic quality, aquatic life, salmon and steelhead spawning, resident trout

spawning, cold-water aquatic life (salmon, trout, steelhead, mountain whitefish, char, cold-water invertebrates, and other native cold-water species), cool-water aquatic life (e.g., native sturgeon, Pacific lamprey, suckers, chub, sculpins, and some minnows), warm-water aquatic life (Borax Lake chub), core cold-water habitat, bull trout spawning and juvenile rearing, redband or Lahontan cutthroat trout, salmon and steelhead migration, human health – water and fish ingestion, and fish consumption. There is literally no reference in the methodology to the requirement to protect wildlife as a designated use; the word “wildlife” does not appear in the methodology apart from references to agency names and citations to the law. The failure of DEQ to include listings based on support of beneficial uses is contrary to the statutory requirement that waters be listed on the 303(d)(1) list when effluent limits are not stringent enough to “implement any *water quality standard* applicable to such waters.” *Id.* (emphasis added).

b. Commenters Submit Data and Information on Failure to Fully Support Oregon’s Designated Uses

There are ample readily available data and information concerning the failure of Oregon’s waters to support its designated uses. These sources include but are not limited to:

- closures of recreational and commercial shellfish harvesting beds;
- threatened and endangered status of species under the federal Endangered Species Act;
- populations listed based on the Oregon Endangered Species Act (ORS 496.171-496.192);
- populations of aquatic species that have been locally extirpated;
- impaired populations such as populations with reproductive organ deformities and evidence of reproductive impairment, including aquatic-dependent mammals, reptiles, amphibians, fish, and birds; and
- low flows causing use impairment;¹¹³

Sources of this information include but are not limited to the National Marine Fisheries Service, U.S. Fish and Wildlife Service, the U.S. Geological Survey, Oregon Department of Fish and Wildlife, Oregon Biodiversity Information Center at Portland State University, institutions of higher learning, and DEQ itself.

We hereby submit as readily available data and information on lack of full support of designated uses, the data and information in Section I.E. of these comments, *supra*.

2. Oregon Fails to List Waters for Violations of Narrative Criteria

Just as designated uses are part of the water quality standards against which DEQ is obligated to compare data and information in developing its 303(d) list of impaired waters, so too are the state’s narrative criteria. While the 2012 methodology mentions narrative criteria, very little of DEQ’s assessment addresses these criteria. The narrative criteria quoted in the methodology

¹¹³ The failure to give independent meaning to the beneficial use component of the water quality standards, as required by *Jefferson County*, also incorrectly restricts 303(d)(1) listings for flow modification and habitat alteration. DEQ takes the position that waterbodies are properly placed under Category 4C, and therefore excluded from the 303(d) list, when the water body suffers from low flows, which themselves can be a demonstration of use impairment.

include “[t]he development of fungi or other growths having a deleterious effect on stream bottoms, fish or other aquatic life, or that are injurious to health, recreation, or industry may not be allowed.” OAR 340-041-0007(9). Here DEQ notes that absent an indication of a “deleterious or injurious effect[] on beneficial uses,” the agency will not find a violation of the criterion. 2012 Methodology at 24. Accordingly, DEQ will find impairments based on

[d]ocumented reports of excessive growths of invasive, non-native aquatic plants that dominate the assemblage in a water body and have a harmful effect on fish or aquatic life or are injurious to health, recreation, or industry. Plants include aquatic species on the Oregon Department of Agriculture Noxious Weed Policy and Classification System designated as “A”, “B”, or “T” weeds or those covered by a quarantine in OAR 603-052-1200.

Id. Likewise, health advisories issued by the Oregon Public Health Division Harmful Algae Bloom Surveillance (HABS) program are a basis for finding the designated use non support necessary to find a violation of this narrative. *Id.* And, finally, DEQ will use

[d]ocumented evidence that algae, including periphyton (attached algae) or phytoplankton (floating algae), are causing other standards to be exceeded (e.g. pH, chlorophyll a, or dissolved oxygen) or impairing a beneficial use.

Id. A requirements that both a criterion and a designated use support be violated in order to place a segment on the 303(d) list is the opposite of the principle of independent applicability. In addition, these examples demonstrate that DEQ does not fully implement its narrative criteria in violation of federal law.

In contrast to the aquatic weeds and algae narrative, DEQ’s citing of the narrative criteria OAR 340-041-0009(4) (“Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health may not be allowed”) and OAR 340-041-0007(10) (“The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish may not be allowed”) for indicator bacteria are citations without any methodology by which it will assess compliance with these narrative criteria. *See* 2012 Methodology at 26, 30. Similarly, while sedimentation is exclusively a narrative criterion, OAR 340-041-0007(11) (“The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation, or industry may not be allowed”), DEQ has no method by which it applies this criterion, stating that while in the past it has used “documentation that showed excessive sedimentation was a significant limitation to fish or other aquatic life,” including “information indicating beneficial uses impairment (aquatic community status, biomonitoring reference sites, or fishery data) and measurement data for benchmarks such as cobble embeddedness or percent fines,” it no longer has any method. *Id.* at 51 (“DEQ is considering approaches to apply a numeric benchmark based on measurements of stream conditions to implement the narrative criteria.”). Total dissolved gas is similar, with a reference to the narrative OAR 340-041-0031(1) (“Waters will be free from dissolved gases, such as carbon dioxide hydrogen sulfide, or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such water.”) but no reference to how DEQ applies the narrative. *Id.* at 55. Where DEQ has no methodology one can be sure it has made no assessment of data and information to

evaluate compliance with narrative criteria.

Similarly, with regard to toxics, DEQ cites two narrative criteria for the protection of uses from toxic contaminants:

Toxic substances may not be introduced above natural background levels in waters of the state in amounts, concentrations, or combinations that may be harmful, may chemically change to harmful forms in the environment, or may accumulate in sediments or bioaccumulate in aquatic life or wildlife to levels that adversely affect public health, safety, or welfare or aquatic life, wildlife, or other designated beneficial uses.

OAR 340-041-0033(2). And the general narrative:

To establish permit or other regulatory limits for toxic substances for which criteria are not included in Tables 20, 33A, or 33B, the department may use the guidance values in Table 33C, public health advisories, and other published scientific literature. The department may also require or conduct bio-assessment studies to monitor the toxicity to aquatic life of complex effluents, other suspected discharges, or chemical substances without numeric criteria.

OAR 340-041-0033(5). DEQ explains that the two exclusive methods it uses to assess waters based on these narrative criteria are determinations by DEQ that waters are impaired because either

pollutants with Safe Drinking Water Act Maximum Contaminant Levels (MCLs) that do not have corresponding human health or aquatic life toxic substance criteria and where a water body is the source water for a Community Water System, two (2) or more valid surface water results not meeting the MCL AND water system finished water also exceeds the MCL for that pollutant

or “[a] fish consumption advisory issued for a specific water body based on pollutants in fish tissue [is] issued by the Oregon Department of Human Services.” *Id.* at 58. DEQ does not discuss any of the prohibitions in OAR 340-041-0033(2) regarding, *inter alia*, wildlife tissue residue levels or sediment nor does it refer to the information that it has gathered on toxic substances for which it has no numeric criteria, with the exception of those with Safe Drinking Water Act MCLs.

In some instances, DEQ’s reference to narrative criteria are simply interpreted in such a narrow fashion as to render them more meaningless than not. For example, while DEQ cites to the narrative criterion OAR 340-41-0007(10) about growths with a deleterious effect, the agency restricts its interpretation to only some invasive plant species, *see e.g.*, 2010 Response to Comments at 11 (“DEQ does not have a methodology to determine when and if other animal species result in impairments based on using the same narrative criteria”), and fails to recognize there are readily available data and information on invasive animal species and invasive plants other than those evaluated in the 2010 assessment. Invasive animal species are a pollutant that has migrated into Oregon waters or has been discharged into Oregon’s waters carried in, for example, ships’ ballast water discharges and recreational boats. A similar example is provided by the narrative criterion OAR 340-41-0007(11) regarding “tastes or odors.” DEQ applies this

criterion, correctly, to support listings of waters affected by toxic blue-green algae which can create a toxic condition referenced in the criterion. However, DEQ's use of the criterion to support listings for the pollutant "aquatic weeds and algae" is not the same as reading the criterion fully. As a result, DEQ does not, for example, list any waters based on the fact that they create a "taste or odor . . . [that] affect the potability of drinking water." DEQ simply ignores this aspect of the narrative criterion.

Overall, DEQ's narrow reading of its narrative criteria, its refusal to accept or seek data and information that pertain to the prohibitions set out in the narrative criteria, and its failure to actually apply the principle of independent applicability render Oregon's 303(d) list inconsistent with federal law.

a. Narrative Criteria for Aquatic Weeds or Algae

The sheer lack of 303(d) listings, when compared to well-known attributes of Oregon's waters demonstrates that DEQ has failed to obtain all readily available data and information on aquatic weeds and algae. The pollutant "aquatic weeds" is stated to include "excessive growths of invasive, non-native aquatic plants that dominate the assemblage in a water body" yet a query of the database for all waters on the 303(d) list, categories 4 and 5, yields very little:

- (1) health advisories issued by the Oregon Harmful Algal Bloom Surveillance program and the U.S. Forest Service for cyanobacteria; and
- (2) a very short list of waters adversely affected by invasive plants including:
 - One data set for "Cabomba carolina, a non-native macrophyte;"
 - Two data sets for "Myriophyllum aquaticum, commonly called parrotfeather;"
 - Seven data sets for "extensive growth of Elodea densa, a non-native aquatic plant and a "B" designated weed (ODA);" and
 - Two data sets for "Eurasian milfoil, a non native species."

DEQ Database. In contrast, attached and cited above, are numerous examples of readily available data and information that meet Oregon's listing methodology for aquatic weeds. This includes health advisories issued in 2013 not included in the proposed list. *See* Oregon Health Authority, Algae Bloom Advisories.¹¹⁴

Just to take one obvious example of DEQ's failure to evaluate readily available data and information, the Department apparently has zero data or information on the deleterious growth of reed canarygrass (*Phalaris arundinacea*) which is well known to present a serious threat as an invasive monoculture adversely affecting wetlands which are waters of the state and therefore subject to Oregon's water quality standards. *See, e.g.,* Biology and Management of Reed Canarygrass and Ecological Restoration, Clayton J. Antieau, Washington State Department of Transportation at 2 ("From an ecological perspective, reed canarygrass competitively excludes other native plant species and limits the biological and habitat diversity of host wetland and riparian habitats. These changes likely precipitate effects on other wetland and riparian functions such as wildlife habitat. Reed canarygrass also evapotranspires large quantities of soil moisture and potentially affects shallow groundwater hydrologic characteristics. This species' aggressive

¹¹⁴ Available at <http://public.health.oregon.gov/HealthyEnvironments/Recreation/HarmfulAlgaeBlooms/Pages/Blue-GreenAlgaeAdvisories.aspx>

growth and significant biomass production affects hydraulic characteristics or surface waters by clogging ditches and stream courses with thick thatch and wrack.”).

Reed canarygrass has direct impacts on beneficial uses, including existing uses that have not been specifically designated, such as the Oregon spotted frog, *Rana pretiosa*, a candidate species under the federal Endangered Species Act. See US Fish & Wildlife Service, Species Fact Sheet Oregon spotted frog.¹¹⁵ As such, Oregon spotted frogs are an “existing use” protected by Tier of the antidegradation policy. Specifically,

The Oregon spotted frog has been lost from at least 78 percent of its former range. Precise historic data is lacking, but this species has been documented in British Columbia, Washington, Oregon, and California. It is believed to have been extirpated (locally extinct but exists elsewhere) from California. It is currently known to occur from extreme southwestern British Columbia, south through the eastern side of the Puget/Willamette Valley Trough and the Columbia River Gorge in south-central Washington, to the Cascades Range, to at least the Klamath Valley in Oregon.

In Oregon, Oregon spotted frogs historically were found in Multnomah, Clackamas, Marion, Linn, Benton, Jackson, Lane, Wasco, and Klamath counties. Currently, this species is only known to occur in Deschutes, Klamath, and Lane counties.

Id. Within the regions where the Oregon spotted frogs has and continues to live, the species requires specific habitat:

Large concentrations of Oregon spotted frogs have been found in areas with the following characteristics: (1) the presence of good breeding and overwintering sites connected by year-round water; (2) reliable water levels that maintain depth throughout the period between oviposition and metamorphosis; and (3) the absence of introduced predators, especially warm-water game fish and bullfrogs.

Id. Invasive plant species, as well as invasive animal species, are a direct reason for the decline of Oregon spotted frogs. According to the US Fish & Wildlife Service, this includes extensive alteration of habitat by reed canarygrass, for which Oregon DEQ apparently has no readily available data or information:

Many factors are believed to have caused Oregon spotted frogs to decline and continue to threaten this species, including loss of habitat, non-native plant invasions, and the introduction of exotic predators such as bullfrogs. Over 95 percent of historic marsh habitat, and consequently Oregon spotted frog habitat, has been lost in the Willamette and Klamath basins. Changes in hydrology (due to construction of ditches and dams) and water quality, development, and livestock overgrazing continue to result in habitat loss, alteration, and/or fragmentation. Non-native plant invasions by such aggressive species as reed canarygrass (*Phalaris arundinacea*), and succession of plant communities from

¹¹⁵ Available at <http://www.fws.gov/oregonfwo/Species/Data/OregonSpottedFrog/>

marsh to meadow also threaten this species' existence. Introductions of bullfrogs and non-native fishes have affected this species both directly, by eating them, and indirectly, by outcompeting or displacing them from their habitat.

Id.

The reed canarygrass example, and its effects on the Oregon spotted frog, demonstrates several points. First, DEQ has failed to obtain all reasonably available data and information because it has no data on reed canarygrass despite its abundance and its adverse impacts on Oregon's waters. Second, DEQ's failure to include animal invasive species as a pollutant eliminates consideration of such predators affecting native species as introduced bullfrogs that are threatening the existence of the candidate species Oregon spotted frog, a species that already has been entirely extirpated in California. Third, Oregon spotted frogs are required to be protected as existing uses under Tier I of the antidegradation policy because they are no longer present where they were found in November 1975 and they may be locally extirpated or completely extirpated in Oregon if they are not recognized as existing uses that require protection. In order to effect this result, the Department must identify to the best of its ability where Oregon spotted frogs lived on or after November 28, 1975 and to protect the water quality necessary to support Oregon spotted frogs as required by Tier I. Last, Oregon's narrow interpretations of its water quality standards results in a wholly inadequate database. One result of this will likely be the continued degradation of Oregon's already decimated and impaired wetlands.

Another example was set out in NWEA's comments on Oregon's proposed 2004 list. We stated then, and repeat: Compliance with the existing biocriterion should also be based on the degree to which the resident biological community has been disrupted by invasive species. While some invasive species are addressed through the Department's aquatic weeds standard, others are not. For example, the New Zealand mudsnail can be so prolific that they carpet the bottoms of streams, competing with native invertebrates for both food and space and/or can literally form a living streambed which does not provide for fish. Invasions of this species are known to be present at the Deschutes River, Snake River, Rogue, Umpqua and New rivers, and portions of the Columbia River estuary, and areas of the coast including coastal lakes such as Coffenbury Lake at Fort Stevens State Park near Astoria, Devil's Lake in Lincoln City, Garrison Lake in Port Orford and Floras Lake in Langlois south of Bandon. See "Small critter, big problem," Henry Miller, Statesman Journal, October 26, 2005;¹¹⁶ "Tiny snail poses a big threat to waterways," Richard Hill, November 2, 2005.¹¹⁷ It is not clear whether the Department has sought readily available data and information on aquatic species invasions such as but not limited to the New Zealand mudsnail from institutions such as the US Fish & Wildlife Service and the Portland State University. It certainly appears that it has not. The combined failure to obtain data and information and to accurately interpret and apply narrative criteria for aquatic weeds and algae renders Oregon's 303(d) list in violation of federal law.

¹¹⁶ Available at <http://www.statesmanjournal.com/apps/pbcs.dll/article?AID=/20051026/OUTDOORS/510260312/1034>

¹¹⁷ Available at <http://www.oregonlive.com/science/oregonian/index.ssf?/base/science/113089473970050.xml&coll=7#continue>

b. *Narrative Biocriteria*

We agree with DEQ that it may use “numeric benchmarks to evaluate the integrity of aquatic biological communities.” 2012 Methodology at 32. However, by its terms, the biocriterion also applies more broadly to any waters identified as having “detrimental changes in the resident biological communities.” As a narrative criterion, DEQ may not limit its application to numeric evaluations of data. Please see the discussion under Aquatic Weeds and Algae above concerning invasive plants and animals even where there are no data to compare to a numeric benchmark. In addition, the database reveals that, once again, the Department has used a small set of data in lieu of all readily available data and information and a narrow interpretation of its narrative criterion. The database for biocriteria violations includes almost no consideration of data and information outside the numeric benchmarks with the exception of some entries for several segments based on a “research paper by Oregon State University (Villeneuve, D.L., Curtis, L.R., et al, (2004) Environmental Stresses and Skeletal Deformities in Fish from the Willamette River, Oregon, USA.” DEQ Database. In other words, DEQ has limited its application of the biocriterion to data and not used it with regard to “information” (see discussion *supra*). It has limited its application of the biocriterion to only those measures of biological health that have scores, even in the face of extensive information demonstrating noncompliance with the biocriterion.

c. *Narrative Criteria for Sedimentation*

DEQ states that it did not evaluate any data or information for sedimentation for the 2012 assessment and, further, that “is considering approaches to apply a numeric benchmark based on measurements of stream conditions to implement the narrative criteria.” 2012 Methodology at 51; *see also* 2010 Methodology at 45 (A reference to the 1998 303(d) list as the last time DEQ interpreted and applied its sediment criterion; “DEQ is currently reviewing approaches to apply a numeric benchmark based on measurements of stream conditions to implement the narrative criteria.”). DEQ does not have the discretion to ignore all data and information on sedimentation that it may have or could have obtained readily simply because it has not developed a numeric implementation methodology for the criterion. Instead, it must at a minimum use the same methods it used in past listing and assessments: indications of beneficial use impairment, described by DEQ as indicated by “aquatic community status, biomonitoring reference sites, or fishery data” and “measurement data for benchmarks such as cobble imbeddedness or percent fines.” *Id.* Where fisheries data indicate impairment of spawning areas that would otherwise be available and suitable for spawning, the Department must find an impairment of this criterion.

d. *Narrative Criteria for Toxics*

DEQ’s limitation on using data on toxics, considering only water column values and not tissue residue or sediment values, is inconsistent with providing the protection allegedly established by the numeric criteria, as discussed *infra*. It is also inconsistent with the requirement to fully support designated uses, protect existing uses under Tier I of the antidegradation policy, and fully implement Oregon’s narrative criterion that protects uses from toxic substances, discussed *supra*. Particularly where the detection and quantitation levels are higher than the numeric criteria, which is roughly half of the human health criteria, the Department should have and use protocols to evaluate tissue and sediment levels in a way that is consistent with the ambient water column criteria. The need to evaluate tissue and sediment levels also exists with regard to

toxics that are not likely to be found in the water column, at least not at levels that can be detected, such as dioxin. An example of how to address this problem is the Columbia Basin Dioxin TMDL established by EPA. See EPA, Total Maximum Daily Loading (TMDL) to Limit Discharges of 2,3,7,8-TCDD (Dioxin) to the Columbia River Basin (Feb. 25, 1991).¹¹⁸ In that TMDL, EPA translated Oregon's .013 ppq numeric criterion into a .07 ppt fish tissue level and applied it to fish tissue levels. *Id.* at A-2. It is not sufficient for the Department to rely upon fish consumption advisories issued by the Oregon Department of Human Services which uses different fish consumption levels to assess the safety of fish consumption under DEQ's Clean Water Act standards. Likewise, the Department's methodology needs to discuss how it treats wildlife studies that demonstrate that levels of toxics are causing adverse effects to health and reproductivity of species such as mink, otter, eagles, falcons, and other piscivorous birds and mammals.

Oregon's current 303(d) listing methodology fails to realistically account for toxics in fish. DEQ's recent study comparing toxicity in fish tissue and water column samples demonstrates the problem with Oregon's 303(d) listing methodology. In 2012, DEQ found that while water column samples from the mid-Columbia River were generally within acceptable levels for toxics, toxics were present in fish tissue at well above the acceptable levels to protect human health. See DEQ, Regional Environmental Monitoring and Assessment Program: 2009 Lower mid-Columbia river Ecological Assessment Final Report (2012).¹¹⁹ Essentially, the study found that water column samples from a waterbody might have an acceptable level of toxics, but the fish in that same waterbody could contain so much toxic pollution that they are dangerous for human consumption. *Id.* As the DEQ website so clearly puts the contrast,

while the [Columbia] river's fish and bank habitat is degraded, its water quality is generally good, with low levels of metals and organic compounds known as polyaromatic hydrocarbons. Unfortunately, bass and largescale sucker fish fillets sampled from the river as part of this study show accumulation of potentially harmful levels of mercury, chlorinated pesticides and other toxic or cancer-causing chemicals, including dioxins, furans, and PCBs.

DEQ, Water Quality Monitoring, Lower Mid-Columbia River Ecological Assessment.¹²⁰ See also EPA, Columbia River Basin: State of the River for Toxics – January 2009 at 1(2009).¹²¹

In contrast to the DEQ water quality criteria which are the basis for 303(d) listings, the Oregon Health Authority uses an assumed fish consumption rate of 32 grams per day of fish, which is substantially lower than the fish consumption rate of 175 grams per day that underlies the numeric criteria. See Oregon Health Authority, Fish Consumption Advisory Standard Operating Guidance For the Oregon Health Authority Fish Advisory Program (2011). Fish advisories are

¹¹⁸ Available at <https://fortress.wa.gov/ecy/publications/publications/0910058.pdf>

¹¹⁹ Available at http://www.deq.state.or.us/lab/wqm/docs/2009%20columbia%20REMAP%20final%20report_DEQ_Complete.pdf

¹²⁰ Available at <http://www.deq.state.or.us/lab/wqm/middlecolumbia.htm>

¹²¹ Available at http://www2.epa.gov/sites/production/files/documents/columbia_state_of_the_river_report_jan2009.pdf

meant to be a warning to the public about how much fish is safe to consume from a given waterbody. In contrast, water quality standards are based on how much fish people actually eat and are not intended to curtail fish consumption but, rather, to protect people at the level at which they consume fish. In addition, while the Oregon Health Authority limits “advisories to non-cancer health effects as cancer risk models are more likely to over-estimate risk, causing consumers to unnecessarily forgo the health benefits of eating fish,” *id.*, EPA explicitly relies on cancer risk assessments in order to determine water quality standards for human health, and analyzes cancer risk at length in the methodology for determining water quality standards, *see e.g.*, EPA, Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health 3-1 (2000).¹²² Likewise, EPA’s recommended methodology for issuing fish advisories also relies on cancer risk assessment: “For carcinogens, EPA recommends basing screening values on chemical-specific cancer slope factors.” EPA, Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories; Volume 2 2-52 (2000).¹²³ Therefore, DEQ’s reliance on state fish consumption advisories to determine compliance with its narrative criterion to protect human health from toxic substances is inconsistent with the criterion and the assumptions used by DEQ in adopting its numeric criteria and is, therefore, entirely arbitrary.

As a result of the Department’s limited interpretation of its own water quality standards, it has also failed to evaluate data on use impairment related to levels of toxic contaminants to piscivorous wildlife such as eagles, mink and otter. For example, despite a report on the Columbia River that concludes “that river otter in the vicinity of RM 119.5 are in a critical or almost critical category based on reference level comparisons, abnormalities noted during necropsy, and histopathological observations of individuals,” DEQ has not used this data as the basis of listing. *See* The Health of the River 1990-1996, Integrated Technical Report, Tetra Tech, May 20, 1996, Figure 14, at 53.¹²⁴ This data and information about the effects of pollutants on designated uses is tied to toxic contaminants: “Concentrations of organochlorine insecticides, PCBs, and to a lesser extent PCDDs and PCDFs in the liver of river otters were highly correlated with each other and many were significantly related to baculum [penis bone] and testes size or weight.” *Id.* at 52. And this same study noted that “[h]istorically, some individual mink contained PCB concentrations known to make adult female mink in laboratory studies incapable of producing young.” *Id.* at 52. Yet DEQ ignores this data and information. Similarly, DEQ ignores the results of the Lower Columbia Water Quality Study where it found sediment contamination exceeds values believed to be protective of benthic organisms and wildlife. *Id.* at 37, Figure 14. This is just one example of DEQ’s ignoring sediment and tissue data and evidence of impacts of toxic substances on designated uses contrary to the explicit language of Oregon’s toxic narrative criterion.

Another source of data and information on beneficial use impacts of toxics and violations of narrative criteria in sediment and tissue are the CERCLA data from the Portland Harbor. *See*

¹²² Available at http://water.epa.gov/scitech/swguidance/standards/criteria/health/methodology/upload/2008_07_01_criteria_humanhealth_method_tsdvol3.pdf

¹²³ Available at http://water.epa.gov/scitech/swguidance/fishshellfish/techguidance/risk/upload/2009_04_23_fish_advice_volume2_v2cover.pdf

¹²⁴ Available at <http://www.estuarypartnership.org/resource/bi-state-program-additional-reports-health-river-1990-1996-integrated-technical-report>

e.g., EPA, Region 10, Technical Documents, Cleanup Investigation.¹²⁵ In fact, a search of the DEQ database yields no records at all from this vast source of data and information, not even given DEQ's purported focus on toxics in the Willamette Basin. And it is not reasonable for us to be obligated to copy all of these files and submit them to DEQ. Yet clearly these documents contain data and information that DEQ can use to determine if toxic substances have been introduced above natural background levels in waters of the state in amounts, concentrations, or combinations that may be harmful, may chemically change to harmful forms in the environment, or may accumulate in sediments or bioaccumulate in aquatic life or wildlife to levels that adversely affect public health, safety, or welfare or aquatic life, wildlife, or other designated beneficial uses. For example, one report found that

Twelve contaminants (copper, lead, mercury, benzo[a]pyrene, dibutyl phthalate, total PCBs, PCB TEQ, total dioxin/furan TEQ, total TEQ, aldrin, 4,4'-DDE, and total Ddx) were identified as posing potentially unacceptable risk for at least one bird receptor. Six contaminants (aluminum, lead, total PCBs, PCB TEQ, total dioxin/furan TEQ, and total TEQ) were identified as posing potentially unacceptable risk to mink or river otter.

Windward Environmental LLC, Portland Harbor RI/FS, Appendix G, Baseline Ecological Risk Assessment (July 1, 2011) at ES-11.¹²⁶ Likewise, “[f]ifty-nine contaminants were identified as posing potentially unacceptable risk to at least one fish receptor,” and 38 chemicals “pose potentially unacceptable risk to Pacific lamprey ammocoetes in localized areas associated with contaminated groundwater discharges to the river. *Id.* at ES-10. Fifty-five contaminants were “identified as posing potentially unacceptable risk to benthic invertebrates.” *Id.* at ES-8. And “[t]hirty-three contaminants were identified as posing potentially unacceptable risk to amphibians and aquatic plants.” *Id.* at ES-12.

Likewise, the RI/FS found that for human health, “[r]isks from fish and shellfish consumption exceed the EPA point of departure for cancer risk of 1×10^{-6} , as well as the target cancer risk range of 1×10^{-6} to 1×10^{-4} and target HI of 1.” Kennedy/Jenks Consultants, Portland Harbor RI/FS, Appendix F, Baseline Human Health Risk Assessment (May 2, 2011) at 16.¹²⁷ This study found that 22 “[o]ther contaminants potentially pos[e] unacceptable risks at a Study Area-wide or localized scale for at least one fish consumption exposure scenario[.]” *Id.* It also found that “[r]isks from PCBs based on consumption of fish within the Study Area exceed the EPA target risk range of 1×10^{-6} to 1×10^{-4} , with a maximum estimated risk of 7×10^{-2} (combined adult and child receptor).” *Id.* at 17. DEQ's failure to use this source of readily available data and information is a violation of federal law.

In some instances, there is simply no way of knowing what DEQ is doing. For example, in its 2010 list, DEQ used an exceedance of the SDWA MCL for atrazine as a violation of its narrative

¹²⁵ Available at http://yosemite.epa.gov/R10/CLEANUP.NSF/ph/Technical+Documents!OpenDocument&ExpandSection=1#_Section1

¹²⁶ Available at http://www.epa.gov/region10/pdf/ph/sitewide/bera_draft_final_7-1-2011.pdf

¹²⁷ Available at http://www.epa.gov/region10/pdf/ph/sitewide/bhhra_draft_final_5-2-2011.pdf

criterion to place waters on the Category 3: Insufficient data list. 2010 Methodology at 57. In the 2012 methodology, DEQ is silent as to its treatment of atrazine. Similarly, DEQ uses 50 µg/L of phosphate phosphorus to interpret its narrative criterion, relying upon EPA's recommended values, but then treats this approach as not sufficient to find violations of narrative criteria by limited exceedances to Category 3B: Insufficient data. 2012 Methodology at 62. DEQ's arbitrary conclusion that interpretations of its narrative criteria cannot be used as the basis for 303(d) listings is inconsistent with federal law and guidance.

e. *Narrative Criteria for Turbidity*

DEQ failed to include violations of the narrative turbidity criterion based on impairment to uses. For example, the database demonstrates the City of Clatskanie reports that in Roaring Creek there are "frequent high turbidity events causing temporary shutdowns" but because there are no turbidity monitoring data available, this water is listed as Category 3B: Potential concern instead of Category 5. See DEQ Database, record ID 23137. There are others treated in this same fashion, e.g., South Fork Necanicum River, *id.* at 23143, Coquille River, *id.* at 23139, North Fork Coquille River, *id.* at 23122, South Fork Coquille River, *id.* at 23141, Floras Creek, *id.* at 23140, and North Fork Hubbard Creek, *id.* at 23123. This failure to list on the basis of a clearly impaired water is due to the severe limitations of the DEQ methodology. First, there is no reason why an impairment must exist at least one eighth of the year (45 days) to be considered sufficient for listing. That is a very high bar. Second, many small public drinking water systems do not have the resources to monitor source water data day after day when they are experiencing the impairment and it is causing operational difficulties. The lack of data undermines the information that should be sufficient basis for listing. Third, the policy of independent applicability means that an impairment based on lack of full support of designated uses is sufficient without also using any numeric criteria that may apply to the water quality problem. Last, by not listing waters where use impairment is demonstrated but data are not available, the Department is withholding the regulatory actions that could and should restore water quality to natural turbidity levels. In doing so, it is putting the cost of drinking water treatment on small municipal systems that can ill afford it and allowing the sources of disturbance to externalize their pollution impacts. This is poor public policy.

f. *Commenters Submission of Data and Information Pertaining to Violations of Oregon's Narrative Criteria*

There are ample readily available data and information concerning the failure of Oregon's waters to meet its narrative criteria. These sources include but are not limited to data and information concerning:

- animal invasive species;
- plant invasive species;
- toxic substances that have accumulated in sediments;
- toxic substances that are found in Oregon's waters in combinations that are harmful;
- toxic substances that are bioaccumulated in aquatic life to levels that adversely affect public health, safety, or welfare;
- toxic substances that have bioaccumulated in aquatic life or wildlife to levels that adversely affect aquatic life, wildlife;
- toxic substances that have bioaccumulated in amounts, concentrations, that may be harmful;

- bio-assessment studies to monitor the toxicity to aquatic life of complex effluents, other suspected discharges, or chemical substances without numeric criteria;
- growths having a deleterious effect on stream bottoms, fish or other aquatic life, or that are injurious to health, recreation, or industry;
- of sufficient quality to support aquatic species without detrimental changes in the resident biological communities;
- bacterial pollution or other conditions deleterious to waters used for domestic purposes, , bathing, or shellfish propagation; and
- creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish may not be allowed.

Sources of this information include but are not limited to the National Marine Fisheries Service, U.S. Fish and Wildlife Service, the U.S. Geological Survey, Oregon Department of Fish and Wildlife, Oregon Biodiversity Information Center at Portland State University, institutions of higher learning, and DEQ itself.

We hereby submit as readily available data and information pertaining to violations of narrative criteria, the data and information in Section I.E. of these comments, *supra*.

3. Numeric Criteria

The 2012 listing methodology is focused primarily on how the Department applies the numeric criteria in its water quality standards to the data and information that it has available. The drawback to this almost exclusive reliance on numeric criteria can be illustrated by the 2010 methodology's treatment of toxic contaminants. Then, DEQ stated that "[n]umeric criteria in Table 20 for toxic substances remain the effective criteria for CWA 305(b) and 303(d) assessment purposes." 2010 Methodology at 4, 50. This narrow view of what it means to apply its water quality standards resulted in DEQ's using 30-year old numeric criteria that are based on a level of fish consumption that is half the level currently used in EPA's recommended national criteria and considerably less than its newly adopted human health criteria. Instead, DEQ could have used its narrative criteria *in addition to* the applicable numeric criteria. DEQ has a legal obligation to use its narrative criterion to supplement and fill the gaps left by inadequacies in its numeric criteria. These problems associated with the 2010 list linger wherever DEQ has failed to evaluate data and information as compared to its 2004 aquatic life criteria, which it refuses to use, and wherever DEQ has failed to evaluate data and information for certain toxic substances, *see infra*, or toxic substances in basins other than the Willamette. As a result, DEQ's proposed 2012 303(d) list is both a hodgepodge and an inadequate reflection of its currently applicable water quality standards.

a. Numeric Criteria for Aquatic Weeds or Algae

Oregon DEQ has only one listing for use of a chemical – in this instance copper sulphate – for the removal of algal blooms when DEQ is well aware of the broad use of chemicals to eradicate aquatic weeds and algae in the state's irrigation systems. *See e.g.*, DEQ, Water Quality Permit Program, Pesticide Applications into Surface Waters, Update on the Pesticide General Permit

(2300-A) and Irrigation System General Permit (2000-J) as of November 2013.¹²⁸ *See also* DEQ, Pesticide General Permit (2300A) Pesticide Applications Covered Under the Permit.¹²⁹ The levels of chemicals in these waters of the state are intended to poison some forms of aquatic life. Therefore, DEQ must evaluate their presence in its assessment of water quality. One category covered by the permit described by DEQ is use of pesticides for “Weed and Algae Control for the control of invasive or other nuisance weeds and algae in water and at the water’s edge. Waters includes streams, rivers, ponds, lakes and drainage ditches. Irrigation systems will require coverage under a general permit as well.” *Id.* Previously DEQ had prepared a general permit for this purpose. Therefore, the Department knows that it must list all the waters in the nearly 265,000 acres of irrigation district land included in the following irrigation districts: Klamath, Hermiston, North Unit, Ochoco, Owyhee, Stanfield, Vale, West Extension, and Westland along with the Owyhee Ditch Company as being subject to use of pesticides for removal of algae and aquatic weeds. We cannot append any data and information associated with the discharges of chemicals and pesticides with these permits because they are in DEQ’s possession, not available to the public. We hereby submit this category of data and information to DEQ for its 2012 list.

We disagree that Oregon has in place a water quality standard that allows DEQ to place waters impaired by algae or weed growth into Category 4 based on “[a]dequate information indicates that the algae or weed growth is not due to pollutants or is a natural condition (Category 4C).” 2012 Methodology at 25. Oregon does not have a natural conditions provision and DEQ has not provided sufficient information as to what constitutes “adequate information” that growth is not due to pollutants. In addition, DEQ’s failure to use its numeric criteria for assessment of aquatic weeds or algae in its 2012 assessment is a violation of federal law.

b. *Numeric Criteria for Bacteria*

i. E. coli

DEQ’s requirement for a minimum of two exceedances of the 406 *E. coli* organism criterion to find a violation of water quality standards sufficient to support a 303(d) listing, 2012 Methodology at 26, is inconsistent with the standard’s specific reference to a “single sample,” OAR 340-041-0009(1)(a)(B). Having been explicit in the standard, DEQ no longer retains the discretion to alter its meaning. Likewise, the standard includes restrictions on the quality of effluent, regardless of whether ambient water quality has been assessed. The methodology leaves unclear whether the Department applies OAR 340-041-0009(5) to effluent data although it notes that the *E. coli* criteria are applicable to such data sources. *See* 2010 Methodology at 21. A quick look at the data base seems to indicate that there are no data sets for these effluent criteria however. This is either because DEQ has failed to obtain this readily available data from permittees or because it has chosen not to evaluate the data that it has. As numeric criteria in the water quality standard, DEQ does not retain the discretion to ignore them.

DEQ’s failure to evaluate data for *E. coli* bacteria for the 2012 assessment is a violation of

¹²⁸ Available at <http://www.deq.state.or.us/wq/wqpermit/pesticides.htm>

¹²⁹ Available at <http://www.deq.state.or.us/wq/wqpermit/docs/general/npdes2300a/2300aPermitOverview.pdf>

federal law. Additionally, DEQ fails to explain its rationale, as required by by 40 C.F.R. § 130.7(b)(6)(iii), as to why it does not use data collected before 2001.

ii. Enterococci

Similarly, DEQ's requirement for multiple samples to evaluate compliance with the EPA-promulgated *Enterococci* criteria is incorrect where there is a single sample criterion. 2012 Methodology at 28-29. Additionally, it is extremely unclear why even an extraordinary number of beach advisories issued by the Oregon Beach Monitoring Program would only merit a Category 3B: Insufficient Data – Potential Concern” assessment. See 2012 Methodology at 29. DEQ concedes that 40 C.F.R. Part 131.41 applies, explains that the “single sample maximum criterion for moderate use coastal recreation waters is currently used by the Oregon Public Health Division’s Beach Monitoring Program to trigger a water contact advisory,” and then rejects the advisories as inconsistent with the numeric criteria. DEQ does not have the discretion to ignore such advisories if they are based on sound information, such as a “sewage spill,” one example noted by DEQ as not an adequate basis for a violation. Likewise, where the Department has information that “heavy rainfall” or “flooding” will, in fact, result in violations, it does not have the discretion to ignore the advisories. Again, this is based on the fact that beneficial use support is as much a part of the legal definition of a water quality standard as the numeric criteria.

DEQ's failure to evaluate data for *Enterococci* bacteria for the 2012 assessment is a violation of federal law. Additionally, DEQ fails to explain its rationale, as required by by 40 C.F.R. § 130.7(b)(6)(iii), as to why it does not use data collected before 2001. Last, DEQ violates federal law in failing to use the Beach Advisories issued by the Oregon Health Authority as a basis for 303(d) listing.

iii. Fecal Coliform Bacteria

DEQ's failure to evaluate data for fecal coliform bacteria for the 2012 assessment is a violation of federal law. Additionally, DEQ fails to explain its rationale, as required by by 40 C.F.R. § 130.7(b)(6)(iii), as to why it does not use data collected before 2001.

c. *Numeric Biocriteria*

DEQ's failure to evaluate data for biocriteria for the 2012 assessment is a violation of federal law. In addition, DEQ has failed to evaluate a scientific report submitted to the agency regarding violations of biocriteria in the Rogue River. See Rick Hafele, Medford Regional Water Reclamation Facility Outfall Assessment Study for the Rogue Fly Fishers & Federation of Fly Fishers (Jan. 2013).

d. *Numeric Criteria for Dissolved Oxygen*

DEQ's failure to evaluate data for dissolved oxygen outside the Willamette and Umatilla basins for the 2012 assessment is a violation of federal law. Additionally, DEQ fails to explain its rationale, as required by by 40 C.F.R. § 130.7(b)(6)(iii), as to why it does not use data collected before 2000.

e. *Numeric Criteria for pH*

DEQ's failure to evaluate data for pH for the 2012 assessment is a violation of federal law. Additionally, DEQ fails to explain its rationale, as required by 40 C.F.R. § 130.7(b)(6)(iii), as to why it does not use data collected before 2001. Likewise, DEQ fails to explain its rationale for excluding consideration of data on pH that are outside a prescribed "a time period of interest" and how that exclusion is consistent with the water quality standard for pH.

f. *Numeric Criteria for Temperature*

DEQ did not evaluate temperature data for the proposed 303(d) list. *See* 2012 Methodology at 54. That DEQ issues its watershed or basin scale TMDLs for temperature so as to apply to all waters within those watersheds or basins does not relieve the agency of the burden of meeting the requirements of 303(d)(1). Failure to evaluate temperature data is a violation of federal law.

The discussion of the temperature standard listing protocols is incomplete. Attaching a variety of outdated and still applicable clarification letters is useful but not sufficient to explain how the Department intends to apply its temperature standards to Oregon waters. The temperature methodology fails to address the large number of exemptions and exceptions present in the temperature standard, such as the air temperature exclusion, and explain how DEQ plans to apply them and how it will do so. The 2012 methodology makes no reference to how the Department's natural conditions determinations made in EPA-approved TMDLs with natural thermal potential can be read as having, or not having, changed the water quality standards that apply to temperature data. This needs to be explained. The same is true for a large variety of other narrative conditions, such as the coldwater refugia requirement. This must be remedied and the Department must continue to assess compliance of waters with temperature standards.

g. *Numeric Criteria for Toxic Substances*

DEQ fails to use the correct numeric criteria where, as it states, "EPA took action on Oregon's aquatic life criteria in January 2013 to both approve and disapprove numeric criteria" and that such criteria are "effective for Clean Water Act purposes." 2012 Methodology at 57. It is incorrect for Oregon to apply its pre-2004 criteria, most of which date to the 1980s. A year in advance of the proposed list's going out to public comment is not, as DEQ states, "late in the process of data evaluation." At a minimum, DEQ could have used an interpretation of its narrative criterion for the protection of aquatic species to override the inadequately protective pre-2004 numeric criteria. To do otherwise is inconsistent with the law and common sense. In addition, when the last call for data was over seven and a half years ago and the last 303(d) list was over four years ago, and the Department has created an arbitrary cut-off date of data collected since 2000, it does not make sense to take an overly narrow view towards evaluating that data. Likewise, DEQ is obligated to use its narrative criterion where it is aware that the National Marine Fisheries Service has found, as for example with ammonia, that the 2004 criteria pose a jeopardy to threatened and endangered species. *See, e.g.*, National Marine Fisheries Service, Jeopardy and Adverse Modification of Critical Habitat Biological Opinion for the Environmental Protection Agency's Proposed Approval of Certain Oregon Administrative Rules Related to Revised Water Quality Criteria for Toxic Pollutants (Aug. 14, 2012) (hereinafter "Toxics BiOp").

DEQ states that "[f]or Integrated Report evaluations, analytical data indicating alkalinity less

than the criterion is flagged as a **Category 3B Insufficient Data – Potential Concern**. Professional judgment should be used during TMDL development or on a case-by-case basis[.]” 2012 Methodology at 61 (emphasis in original). This, however, is not consistent with the criterion. Moreover, DEQ’s failure to evaluate alkalinity for this proposed list is inconsistent with federal law. *See id.*

DEQ’s failure to obtain and review readily available data on toxic substances from the U.S. Geological Service from all Oregon basins is contrary to federal law. *See* 2012 Methodology at 59. DEQ’s failure to obtain and review readily available data and information on chlorine, *id.* at 65, cyanide, *id.* at 66, Demeton, *id.* at 67, dichlorobenzenes, *id.*, dichloroethylenes, *id.*, dichloropropene 1,3, *id.*, dinitrophenols, *id.*, dioxin, *id.* at 68, 1,2 diphenylhydrazine, *id.*, Halomethanes, *id.*, hexachlorocyclohexane (Lindane) or BHC, *id.* at 69, nitrosamines, *id.* at 72, pentachlorophenol, *id.*, and phosphorus or phosphate phosphorus, *id.* at 73, is contrary to federal law.

DEQ’s listing methodology should include the quantitation limits the agency uses in its assessment of data. Currently there is not even a link to the quantitation limits where DEQ does publish them. Additionally, DEQ fails to explain its rationale, as required by 40 C.F.R. § 130.7(b)(6)(iii), as to why it does not use data collected before 2000. DEQ violated federal law in failing to evaluate data or information for toxic substances in marine waters for this proposed list. *See id.* at 60.

h. Numeric Criteria for Turbidity

DEQ’s requirements for finding an impairment of public drinking water systems is arbitrary. The methodology requires not only that the system experience operational difficulties but that there also are data that validate the impairment in the source water. *See* 2012 Methodology at 74. In addition, the source water data must demonstrate an impairment for more than 45 days out of any year for which data are available. *Id.* These restrictive requirements for Category 5 listing are intended to limit the number of listings for turbidity even when impairment is experienced and it is significant. For example, the City of Astoria reports greater than 45 days of high turbidity but DEQ concludes the “[d]ata are insufficient to determine if this was related to unusual or infrequent weather events in that year” and declines to list the Bear Creek as impaired. DEQ Database, record ID 23129 . There is no exception in the numeric criterion, OAR 340-041-0036, that allows DEQ to not list waters based on inadequate information about weather events. The same is true of the City of Warrenton and Lewis and Clark River, South Fork Lewis and Clark River, and an unnamed stream where DEQ finds that “[d]ata not sufficient to determine if shutdowns are more frequent than normal operation patterns.” *See* DEQ Database, record ID 23148, 23147, 23146, 23145. The rationale is provided for the City of Waldport and Eckman Creek, South Fork Weist Creek, Weist Creek. *See* DEQ Database, record ID 23154, 23152, 23153. And for Jetty Creek and the Timber Water Association, *id.* at 23121, the Nehalem River, *id.* at 23149, Miller Creek and the Alderwood Water Development, *id.* at 23155, Breitenbush River, *id.* at 23150, and Mackey Creek, *id.* at 23151. There is no rationale set out in the water quality standard for not listing waters where turbidity does not cause problems because the public water system “can switch readily among numerous sources.” *See id.*, record ID 23128, 23126, 23127.

i. Commenters Submission of Data and Information

We hereby submit as readily available data and information pertaining to violations of numeric criteria, the data and information in Section I.E. of these comments, *supra*.

4. Oregon Fails to List Waters for Violations of Antidegradation Policies and Requirements

a. EPA's Requirements to List on the Basis of Antidegradation Policies

As set out above, the statute and EPA's implementing regulations require that 303(d) listings be based on all components of applicable water quality standards, including the antidegradation policy. EPA reiterates this position in its 2012 Guidance, reminding states that

Antidegradation is an integral component of a State water quality standard (i.e., designated uses; criteria to meet those uses; and antidegradation policies) that focuses on maintaining and protecting the chemical, physical, and biological integrity of the nation's waters, consistent with the CWA and its implementing regulations. CWA Section 303(d) and EPA's implementing regulations require States to identify waters not meeting any applicable water quality standard (CWA §303(d)(1)(A), 40 C.F.R. 130.7(b)(3)). EPA's listing regulations specify that "applicable water quality standards" refer to criteria, designated uses, and **antidegradation requirements** (40 CFR 130.7(b)(3)).

2012 Guidance at 7 (emphasis in original). EPA points out that "[b]y assessing waters in this manner, there is a greater opportunity to protect human health and wildlife values, achieve healthy watersheds, and fulfill in a more cost-effective manner the CWA's primary objective to restore and maintain the nation's waters." *Id.* EPA's 2014 guidance reiterates EPA's position and provides states with an example of how data and information could indicate a waterbody is not meeting a State's antidegradation requirements for Tier III. EPA, Information Concerning 2014 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions (Sept. 3, 2013) at 16.

b. Oregon's Failure to Comply with EPA Policies to List on the Basis of Violations of the Antidegradation Policy

In its 2012 methodology, DEQ acknowledges that antidegradation policies and requirements are key elements of water quality standards and asserts its methodology is consistent with them. 2012 Methodology at 1. DEQ cites its statewide antidegradation policy at OAR 340-041-0004. *Id.* at 5. After making this assertion, DEQ never mentions antidegradation again. The assessment database provides no ability to sort the database to determine if DEQ has made 303(d) listings based on violations of Tier I of the antidegradation policy that requires protection of existing uses. Oregon has no Tier III waters. Therefore, it can be deduced that DEQ has not assessed or listed any waters on the basis of the antidegradation policy, contrary to its assertion.

Oregon's Tier I antidegradation policy requires the state to "protect, maintain, and enhance existing surface water quality to ensure the full protection of all existing beneficial uses." OAR 340-041-0004(1); *see also* 40 C.F.R. § 131.12(a)(1) ("[e]xisting instream water uses and the

level of water quality necessary to protect the existing uses shall be maintained and protected.) “Existing uses” are defined as “those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.” 40 C.F.R. § 131.3(e). According to EPA, “[Tier I is] the absolute floor of water quality” providing “a minimum level of protection” to all waters. EPA, Questions and Answers on: Antidegradation 4 (August 1985)¹³⁰

As NWEA pointed out in its 2010 comments, there are ample readily available data and information on violations of Tier I of the antidegradation policy in Oregon. For example, the Oregon Department of Fish and Wildlife (ODFW) maintains information on causes of fish population declines and evaluates habitat conditions. There is no indication that DEQ has sought or assessed this information and data. Nor does the proposed list demonstrate that DEQ has used the data and information that are published and are the basis for the regular publication of the document Rare, Threatened and Endangered Species of Oregon by the Oregon Biodiversity Information Center at the Institute for Natural Resources, Portland State University.¹³¹ DEQ’s failure to use this evidence of aquatic and aquatic-dependent species on the verge of extirpation in locations in Oregon, is a failure to assess compliance with Tier I of the state’s antidegradation policy, contrary to the assertions in its methodology and requirements of federal law.

DEQ could readily obtain data and information on the species known to have been locally extirpated since November 28, 1975. For example, the USF&WS website for Oregon species notes that

In 1993, the U.S. Fish and Wildlife Service determined that the Oregon spotted frog warranted listing under the Endangered Species Act, but doing so was precluded by higher priority listing actions. The frog then became a candidate for listing in the future. On August 29, 2013, the USFWS proposed to list the frog as a threatened species and to designate critical habitat.

USF&WS, Oregon Fish & Wildlife Office, Species Fact Sheet: Oregon spotted frog *Rana pretiosa*.¹³² The Service states that “[i]n Oregon, Oregon spotted frogs historically were found in Multnomah, Clackamas, Marion, Linn, Benton, Jackson, Lane, Wasco, Deschutes and Klamath counties. Currently, this species is only known to occur in Wasco, Deschutes, Klamath, Jackson and Lane counties.” *Id.* It points out that “[o]ver 95 percent of historic marsh habitat, and consequently Oregon spotted frog habitat, has been lost in the Willamette and Klamath basins.” *Id.* The website cites scientific reports readily obtained by DEQ from the Service and includes a map that demonstrates the loss of Oregon spotted frogs prior to 1990. The local extirpations of the Oregon spotted frog are a perfect example of data and information readily available to DEQ that demonstrate a violation of Oregon’s requirement to fully protect all existing beneficial uses. See OAR 340-041-0004(1).

¹³⁰ Available at http://water.epa.gov/scitech/swguidance/standards/upload/2002_06_11_standards_handbook_handbookappxG.pdf

¹³¹ Available at <http://orbic.pdx.edu/rte-species.html>

¹³² Available at <http://www.fws.gov/oregonfwo/Species/Data/OregonSpottedFrog/>

In addition, DEQ cannot adequately assess compliance with Tier I protection because it limits the data and information it reviews to 2000 or later. To evaluate protection of existing uses requires the consideration of all data and information going back to 1975. A policy that limits its evaluation of data and information to the last ten years by definition cannot assure that existing uses and the water needed to support them has been correctly identified and assessed, in violation of federal law.

c. *Commenters Submission of Data and Information that Demonstrate Violations of Tier I of the Antidegradation Policy*

We hereby submit as readily available data and information pertaining to violations of Tier I of the antidegradation policy, the data and information in Section I.E. of these comments, *supra*.

B. Oregon Fails to Use Legally Applicable Water Quality Standards in its 2012 Assessment

DEQ's proposed list is based on a methodology that includes the following false statement: "[n]arrative criteria include provisions for . . . [l]ess stringent natural conditions to supersede numeric criteria (OAR 340-041-0007(2))." 2012 Methodology at 5. DEQ issued a so-called "call for data" from December 16, 2011 through January 31, 2012. On this basis, DEQ claims that it can use the water quality standards in place "at the time the 2012 data evaluation *was initiated*." DEQ, Summary of New 303(d) Listings, Delistings, and Other Significant Assessments Proposed With Oregon's 2012 Integrated Report 2 (Dec. 20, 2013) (emphasis added).¹³³ In other words, DEQ believes that it can use standards that are now two years out-of-date in producing its late and extraordinarily inadequate 303(d) report. There is no basis for this conclusion. While there may be a rationale for drawing a line somewhere, that line cannot be drawn two years ago when DEQ had barely completed any analysis if indeed it had even started its analysis. Given the extremely narrow scope of the effort embodied in the proposed listings – primarily a review of new data on just two parameters in just two of Oregon's basins – it simply is not plausible that DEQ needed to draw the line where it did.

Since January 31, 2012 when the "call for data" was completed, two sets of actions have taken place. First, on February 28, 2012 the federal district court in *Northwest Environmental Advocates v. EPA*, No. 3:05-cv-01876-AC, granted summary judgment to plaintiff with regard to Oregon's natural conditions provisions in its water quality standards. On April 10, 2013 the court "set aside and remanded to EPA" EPA's previous approval of Oregon's Natural Conditions Criterion, OAR 340-041-0028(8) and the Oregon Statewide Narrative Criterion, OAR 340-041-0007(2). Subsequently, and consistent with the summary judgment and court vacatur, EPA also disapproved these two provisions. *See* Letter from Dan Opalski, EPA, to Greg Aldrich, DEQ (Aug. 8, 2013). Therefore, at the time DEQ completed its Summary of the list prior to putting it out for public comment nearly two years had passed since it had been made aware that its NCC was illegal and seven months had passed since the court vacated the same provisions. That period of time was certainly long enough for Oregon to identify the waterbodies to which it had previously applied the NCC as a method of removing them from the 303(d) list – either directly or through the completion of TMDLs that rely upon the NCC – and to include them on the

¹³³ Available at <http://www.oregon.gov/deq/WQ/Documents/Assessment/Summary2012Assessment.pdf>

proposed 2012 list. There is no basis for Oregon's having decided to ignore the court vacatur and EPA disapproval of the two natural conditions provisions. As EPA has said,

[i]n the absence of a natural background provision in a State's water quality standards regulation, or site-specific criteria based on natural background, the otherwise applicable criteria would be the basis for determining whether a waterbody is impaired. In such circumstances, when a criterion is not achieved in a waterbody, EPA would generally expect the State to include that waterbody on its 303(d) list.

EPA, Information Concerning 2008 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions (Oct. 12, 2006)(hereinafter "2008 Guidance") at 10. Oregon no longer has a natural background provision, therefore, the proposed list should contain all waterbody segments that have been placed in a category other than the 303(d)(1) list on the basis of those now-deleted provisions.

Second, DEQ's use of its natural conditions provisions is inconsistent with EPA guidance. EPA addressed the issue in its 2008 guidance answering the question: How should States make 303(d) listing decisions when naturally occurring pollutants are present in a waterbody? 2008 Guidance at 10. Specifically, EPA addresses the question of "303(d) decision making *for waters impaired totally or in part* by a naturally occurring pollutant, *id.* (emphasis in original), concluding that where a waterbody that "receives pollutant loadings from both natural background and anthropogenic sources . . . the waterbody is considered impaired and belongs the 303(d) list or Category 5," *id.* at 11. Only where the exceedance of the applicable numeric criterion is "all natural" may the state not list the waterbody if it has a natural conditions provision in its standards. *See id.* at 11 (Figure 1). Therefore, EPA's guidance has never allowed the removal of waters from the list based solely on some natural contribution to exceedances of numeric criteria.

EPA's 2014 Guidance continues to makes the agency's position clear: "applicable water quality standards are the basis for determining whether a waterbody must be included on a State's Section 303(d) list. . . . In the absence of an EPA-approved natural conditions provision . . . the otherwise applicable criterion is the basis for determining whether a waterbody belongs on the State's Section 303(d) list." 2014 Guidance at 5. To the extent that DEQ might have been confused as to which standards could be used for its 303(d) list, EPA spelled it out: "EPA's guidance on the appropriate use of natural conditions provisions for making 303(d) listing decisions remains unchanged for the 2014 reporting cycle. . . . If the pollutant concentrations do not meet the EPA-approved water quality standards, and anthropogenic sources of the pollutant are present, the water is considered impaired and should be included on the State's Section 303(d) list even if natural sources of the pollutant are present." *Id.* Only if a water fails to meet standards based "*solely due to naturally occurring levels of a pollutant*, and it has an approved applicable natural conditions provision, the State should include in its IR submission for the 2014 and future reporting cycles a rationale for either removing or not including the water/pollutant combination on the State's Section 303(d) list." *Id.* (emphasis added). The guidance goes on to establish that the State must explain the rationale for concluding the natural condition is the sole cause of the exceedance. *Id.* at 5-6.

DEQ has used the development of Total Maximum Daily Loads (TMDLs) for temperature-impaired waterbodies as the basis for removing them to Category 4A. These temperature TMDLs were developed using the now-vacated natural conditions criterion. While a TMDL can

be used to move temperature impaired waters to Category 4A where the TMDL pertains to the valid numeric criteria, it cannot be used as a basis for delisting a segment where the underlying standards have been changed. Therefore, DEQ cannot rely on those temperature TMDLs that interpreted and applied the natural conditions criterion as the basis for not including those waterbodies on the Category 5 list.

Likewise, DEQ cannot rely on TMDLs developed to meet the now superseded mercury criteria for human health protection as a basis for not listing waters that fail to meet the new, more stringent human health mercury criterion. Yet a search of waterbody segments assessment for mercury in the Willamette Basin demonstrates that DEQ continues to include those waters in Category 4A on the basis that EPA approved a TMDL for mercury in the Willamette Basin on September 29, 2006. Despite an alleged “focus” on both the Willamette Basin and statewide tissue samples for mercury, DEQ has not identified or apparently assessed any new tissue samples for mercury in the Willamette Basin waters, let alone listed them on the 303(d) list. Yet the approved TMDL is to meet a numeric criterion based on a fish consumption level far smaller than currently underlies the EPA approved criterion.

Similarly, DEQ has used the incorrect and not currently applicable water quality standards for aquatic life toxic criteria. DEQ states that because EPA acted on Oregon’s 2004 revisions to toxic aquatic life criteria in January 2013, this “approval from EPA occurred late in the process of data evaluation for the 2012 Integrated Report” and therefore “[f]or the 2012 Integrated Report, the pre-revision aquatic life numeric criteria on OAR 340-041 Table 20 were used.” 2012 Methodology at 56-57. In fact, a full year transpired after that action and before Oregon issued its proposed list for public review and comment, an action that was not “late in the process.” DEQ is incorrect that it may use outdated and superceded numeric aquatic life criteria for its 2012 303(d) list.

Moreover, at the time of EPA’s action, DEQ was already aware that its aquatic life criteria for cadmium, copper, aluminum, and ammonia were not protective of threatened and endangered salmonids in Oregon. These findings were set out by the National Marine Fisheries Service in its biological opinion in August of 2012, six and a half months after the close of its “call for data” and well in time for Oregon to have taken them into consideration. *See* Toxics BiOp. Specifically, in light of information from NMFS that the freshwater criteria for these pollutants did not protect Oregon’s designated uses, DEQ was required to apply the gap-filling measure of its narrative criterion in order to prevent the introduction of toxic substances “in amounts, concentrations, or combinations that may be harmful.” OAR 340-041-0033(2). NMFS provided evidence of harm that Oregon’s numeric criteria do not guard against. Moreover, NMFS’s biological opinion set out Reasonable and Prudent Alternatives that provide some guidance to DEQ on appropriate ways of interpreting and applying its narrative criterion to data and information on these pollutants.

In addition, DEQ’s methodology makes no reference whatsoever to basin-specific water quality standards that are set out in OAR 340-041-0101 through OAR 340-041-0350.

C. Oregon Fails to Use the Definition of Water Quality Limited Waters in its Standards

DEQ ignores its own water quality standards in establishing its assessments and lists. For example, the methodology makes no reference whatsoever to Oregon’s definition of “water

quality limited” waters:

"Water Quality Limited" means one of the following:

- (a) A receiving stream that does not meet narrative or numeric water quality criteria during the entire year or defined season even after the implementation of standard technology;
- (b) A receiving stream that achieves and is expected to continue to achieve narrative or numeric water quality criteria but uses higher than standard technology to protect beneficial uses;
- (c) A receiving stream for which there is insufficient information to determine whether water quality criteria are being met with higher-than-standard treatment technology or a receiving stream that would not be expected to meet water quality criteria during the entire year or defined season without higher than standard technology.

OAR 340-041-0002(70). Not only does subsection (a) make clear that Oregon must apply its narrative criteria, but subsection (b) makes clear that waters for which data demonstrate compliance but for which compliance is achieved through higher than standard technology are deemed water quality limited. And, where there is no information about the use of higher than standard technology, the policy at subsection (c) weighs in favor of a finding that a waterbody is water quality limited. Moreover, DEQ should identify water quality limited waters by the state categories because of their regulatory significance. For example, the Water Quality Limited Waters Policy applies to waters listed under subsection (a) differently than to waters identified under other subsections. OAR 340-041-0004(7). Likewise, the requirements of OAR 340-041-0046 (Water Quality Limited Waters) need this information. If this information is not made clear, it will be equally unclear to DEQ staff, permittees, and the general public how the Department intends to apply its antidegradation policies to various waters and parameters.

Likewise, the Department’s failure to evaluate data and information related to designated and existing use support, discussed *supra*, results in its inability to evaluate how to apply its regulations. DEQ’s failure to acknowledge the inclusion of existing use protection in its water quality standards prevents the Department from applying its Tier I antidegradation protections through the 303(d) listing process, an essential mechanism for providing protection and restoration actions. The same is true with regard to designated uses. For example, the antidegradation policy requires DEQ to make findings with regard to providing full support for designated uses in allowing increased loads:

The new or increased discharged load will not unacceptably threaten or impair any recognized beneficial uses or adversely affect threatened or endangered species. In making this determination, the Commission or Department may rely upon the presumption that if the numeric criteria established to protect specific uses are met the beneficial uses they were designed to protect are protected. In making this determination the Commission or Department may also evaluate other State and federal agency data that would provide information on potential impacts to beneficial uses for which the numeric criteria have not been set;

OAR 340-041-0004(9)(a)(C) (emphasis added). DEQ's refusal to use one of the key elements of its water quality standards – designated uses – precludes the agency from being able to fully implement its standards and regulations.

III. THE SCOPE OF OREGON'S LIST IS INCONSISTENT WITH FEDERAL REQUIREMENTS

A. Oregon Fails to Evaluate and List Waters Determined to be "Threatened"

The definition of "water quality limited segment" in EPA regulations includes waters not expected to meet applicable water quality standards, which EPA refers to as "threatened" waters. 40 C.F.R. § 130.2(j). EPA Guidance indicates that a water should be placed in Category 5 of the 303(d) list when "[a]vailable data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed." 2006 Guidance at 47. EPA recommends that states consider segments as threatened "those segments that are currently attaining WQS, but are projected as the result of applying a valid statistical methodology to exceed WQS by the next listing cycle (every two years). For example, segments should be listed if the analysis of existing data and information demonstrates a . . . projected trend will result in a failure to meet that standard by the date of the next list[.]" *Id.* at 59. EPA directs that "[t]he state assessment and listing methodology should describe how the state identifies threatened segments. *Id.*

In contrast, DEQ has not discussed how it identifies threatened waters in its 2012 methodology. The word does not show up except to describe species listed under the Endangered Species Act. There is no way to search for threatened waters on the DEQ Database. Therefore, one can conclude that Oregon does not include threatened waters in its 303(d) list.

DEQ does, however, engage in some trend analysis using the Oregon Water Quality Index. For example, the DEQ website contains some examples of upward and downward trends. *See* DEQ, Laboratory and Environmental Assessment, Specific Examples of Trend Analysis Using the Oregon Water Quality Index.¹³⁴ While the specific examples here, demonstrating upward pollution from nonpoint sources and downward pollution from point sources, involve waters that have been or are currently impaired, the implication of this website is that Oregon conducts trend analyses beyond those presented but which DEQ does not use for its 303(d) list evaluation. Additionally, the website includes a map that shows improving and declining trends at various locations in Oregon including some waters determined to be "excellent," "good," and "fair" that are "declining" in water quality as a "significant trend." *See* Oregon Water Quality Index Water Years 2003-2012.¹³⁵ For example, 2012 Water Quality Index Results for Winchuck R. u/s HWY 101 Station 10537 is an "excellent" site that is declining, the Illinois R. d/s Kerby, Station 11482 is a "good" site that is declining. *Id.* DEQ produces annual reports that discuss trends. *Id.* For example, in its most recent report DEQ reported that

130 sites in 2011 and all 131 sites in 2012 had sufficient data to analyze for trends. In 2011, 15 sites (12%) had significant increases in overall water quality and 26 (20%) had significant decreases in water quality. In 2012, 24 sites (18%) had significant increases in overall water quality and 19 (14%) had significant

¹³⁴ Available at <http://www.deq.state.or.us/lab/wqm/trendex.htm>

¹³⁵ Available at <http://www.deq.state.or.us/lab/wqm/wqimain.htm>

decreases in water quality.

DEQ, Oregon Water Quality Index Summary Report Water Years 2002-2011 and 2003-2012 (Feb. 2013) at 12.¹³⁶ While this program does not “measure toxic contaminant concentrations, habitat conditions or biological community health,” *id.* at 5, it does represent a source of existing and readily available data and information on threatened waters that DEQ is required to use in compiling its 303(d) list. It is, as well, an opportunity for DEQ to use data and analysis from its laboratory for regulatory purposes to achieve the overall goals of the Clean Water Act. Commenters hereby submit all available Oregon Water Quality Index Summary Reports as existing and readily available data and information DEQ is required to use in compiling its 303(d) list.

B. Oregon Fails to Use Nonpoint Source Assessments, Basin Plans, and Numerous Other Sources of Data and Information in Listing 303(d) Waters

As discussed *supra*, Oregon has four published Basin Plans. DEQ has not, apparently, used the data and information contained within these plans. While the basin plans to a large degree discuss the 303(d) listings themselves and are not, therefore, a source of data and information for the listings, it appears that all the data and information that are contained within the basin plans or that DEQ evaluated to support the writing of the basin plans may not have been used to develop the proposed 303(d) list. There is no way to tell, even searching the DEQ Database, which data and information DEQ and EPA have used and which they have not. The following discussion pertains to the statements DEQ made in the Rogue Basin Plan as examples of how DEQ may have failed to consider all existing and readily available data and information and applied all aspects of its water quality standards when deriving its proposed 303(d) list. *See* DEQ, Water Quality Status and Action Plan: Rogue Basin (Sept. 2011). The conclusions apply to all basins in the state, including but not limited to the other basins for which DEQ has prepared basin plans.

1. The Rogue Basin Plan Demonstrates the Breadth of Data and Information Not Used by DEQ in its 303(d) Listings

Regarding compliance with the biocriterion, the Rogue Basin Plan states that: “Sampling by DEQ showed 30% of the sites tested in the Rogue to be in poor condition for macroinvertebrates.” *Id.* at 1. We cannot confirm that DEQ or EPA used all of these results of these samples in the Rogue River Basin or elsewhere.

The Rogue Basin Plan states that, “[p]ublic water systems periodically exceed drinking water standards for a number of parameters including: selected toxics, nitrates, bacteria and turbidity.” *Id.* at 1. It further states that:

two public water systems served by surface water (City of Rogue River and Jackson County Parks at Emigrant Lake) have had detections of compounds (nickel and antimony) above the action level in finished water. In addition, two systems (Galice Resort and Latgawa Methodist Church Camp) had coliform bacteria in their finished water.

¹³⁶ Available at <http://www.deq.state.or.us/lab/wqm/docs/OWQISummary12.pdf>

Id. at 17. And DEQ also reports that:

Eight public water systems using surface water in the Rogue Basin reported E. coli counts over 100 per 100mL during the two-year period. In addition, low levels of pharmaceuticals (sulfamethoxazole, carbamazepine, and diphenhydramine), steroids and hormones (coprostanol and cholesterol), and pesticides (DEET, atrazine, diuron, fluometuron, and carbaryl) were found in Gold Hill's drinking water as part of DEQ's Drinking Water Source Monitoring Project.

Id. at 17-18. Finally, DEQ found that Gold Hill monitoring "confirmed the presence of low levels of pharmaceuticals, steroids and hormones, and pesticides in the drinking water source." *Id.* at 18. Based on our review of DEQ's methodology we strongly suspect that these data and findings were not evaluated for use in the 303(d) list. Because DEQ does not provide a list of data sources it uses, it is difficult to ascertain if these data were used or not.

The Rogue Basin Plan discusses algal growths and the toxins they produce, stating that:

Health advisories have been posted since the HABs program began in 2004 (Table 7). Note that Fish Lake had a notice posted in 2002 but an advisory was not issued. The posting criterion used in 2004 was 15,000 cells/ml. Selmac Lake was posted that year, but it exceeded 100,000 cells/ml and had toxins present that forced the closing of a public drinking water system for the campground.

Id. at 20. Although these waters for which notices were posted but advisories were not issued are currently on Oregon's 303(d) list, DEQ's methodology is linked to the advisories, not notices, and leads to the conclusion that DEQ may be ignoring some readily available data and information that algal growths should be the basis for 303(d) listings that are not currently on the list or would be precluded due to DEQ's narrow methodology of assessment. Likewise, we cannot determine if the following sources have been used for 303(d) listings or if similar sources have been used for listings in other basins:

Lakes with potential HABs issues include Agate and Emigrant Lakes based on information in Johnson et al, 1985 and Sweet, 1985 that shows that blue-green algae have been a dominant species. Spectral analysis based on Landsat satellite data indicates that blooms have been occurring in Horseshoe Lake and Indian Lake Reservoir (Turner, 2010). Additional data is needed to determine the status of these lakes.

Id. at 21.

The Rogue Basin Plan observes that "Spring Chinook Salmon have been identified as being potentially at risk by the Oregon Department of Fish and Wildlife." *Id.* at 1. The identification of an entire species in a basin as "potentially at risk" indicates that some waters in which the species live or have lived, and potentially have been extirpated or near extirpated, in this basin fail to fully support a designated use. This is an example of the types of readily available data and information that link explicitly to Oregon's water quality standards that DEQ must evaluate and use for its 303(d) listings in the Rogue Basin and across the state.

The Rogue Basin Plan states that: “[s]edimentation is a concern throughout the Rogue Basin: 42% of wadeable streams surveyed were in good condition for fine sediment stress, 29% in fair condition, 29% in poor condition.” *Id.* at 2. DEQ also observed that “[t]his was 10% higher than was observed for temperature stress (Figure 2).” *Id.* at 22. We are unable to correlate the at least 29 percent of streams in the Rogue basin to any old 303(d) listings for sedimentation in order to understand the degree to which DEQ has used these data. However, searching the database for subbasins in the Rogue yields precisely one Category 4A listing for sedimentation in Beaver Creek. These results do not square with DEQ’s analysis in the basin plan. On this basis we conclude that DEQ has failed to use its existing and readily available data and information on sedimentation throughout the state for its 303(d) list.

The Rogue Basin Plan provides background information on the state’s toxics monitoring program:

In 2008, DEQ initiated the Toxics Monitoring Program (TMP). The goal of the TMP is to measure and assess the state’s surface waters and aquatic resources for the presence of toxic pollutants, and where possible, identify the sources of the pollutants. The TMP focuses on measuring chemicals produced intentionally or unintentionally as the result of industrial, municipal, or agricultural processes whose physical and chemical characteristics have been demonstrated to impair the normal functioning of biological systems at low exposure levels. The TMP measures more than 270 pollutants of interest in water and/or fish, including; volatile and semi volatile organics, poly-aromatic hydrocarbons, poly-chlorinated biphenyls, poly-brominated flame retardants, dioxins and furans, select metals, select current-use/legacy pesticides and emerging contaminants (i.e., pharmaceuticals, personal care products, and plasticizers (“P3 List”)). Approximately 1/3 of the SB 737 priority pollutants will be measured in fish, water or both as part of the TMP. The ultimate scope of the TMP is to measure the concentrations of toxic pollutants in surface water and aquatic resources in all 13 major basins of the State.

Id. at 59. The plan further states that, for the Rogue Basin, [t]he DEQ Toxics program plans to collect fish tissue and water column samples in spring of 2011. Sediments and fish tissues were sampled for toxics in 2010 and results are expected in 2011.” *Id.* at 1. It goes on to say that

DEQ's Toxics Monitoring Program collected resident fresh water fish from 4 sites in the basin including two sites on the Rogue River (behind Gold Ray Dam, and downstream of Robertson Bridge) along with Applegate Reservoir and Emigrant Lake. Bass were collected from behind Gold Ray dam in conjunction with Oregon Department of Fish and Wildlife's fish salvage efforts just prior to the scheduled removal of the dam. Fillets (the edible portion of the fish) will be analyzed for over one hundred toxic pollutants (including mercury) that tend to accumulate in living organisms (bio-concentrate). Results for those samples are pending as of December 2010. In 2011, DEQ's Toxics Monitoring Program plans . . . select up to 8 locations throughout the basin in the spring and fall of 2011 and analyze them for over 270 organic chemicals.

Id. at 16. Similarly, DEQ reported that

Shiner surf perch (*Cymatogaster aggregata*) were caught in 2001 and Pacific staghorn sculpin (*Leptocottus armatus*) in 2004. Aluminum, arsenic, chromium, copper, iron, nickel, zinc, silver, selenium, mercury and the pesticide 4,4'-DDE were detected in the surf perch. Pacific staghorn sculpin contained the metals aluminum, chromium, copper, nickel, iron, silver, zinc, lead, selenium, and mercury. Several poly-brominated-diphenyl-ether flame retardants were added to the organic compound analytical suite in 2004. The PBDEs ,2',4,4',5-pentabromo-diphenyl-ether; 2,2',4,4',6-pentabromo-diphenyl-ether; 2,2',4,4'-tetrabromo-diphenyl-ether were detected, as were the pesticides hexachlorobenzene and trans-nonachlor. There was no sediment toxicity with the test organism *ampelisca abdita*, but a sediment porewater test of sea urchin fertilization and development showed some impairment.

Id. at 28-29. This description of DEQ's toxics monitoring program demonstrates the agency is collecting and analyzing fish tissue for a wide variety of toxic chemicals including those without numeric criteria that are covered by Oregon's narrative criterion for toxic substances. It further reveals that this source of existing and readily available data and information that pertains explicitly to Oregon's water quality standards is not being evaluated for use developing the 303(d) list, contrary to federal law. This is true both of the Rogue basin and throughout the state. Commenters do not have access to the data collected by DEQ in its Toxics Monitoring Program. *See* DEQ, Statewide Toxics Monitoring Program.¹³⁷

The Rogue plan states that “[i]n 2010, effluent samples were collected twice from the three major waste water treatment facilities in the Rogue Basin (Grants Pass, Medford, Ashland) and are being analyzed for 119 persistent priority pollutants pursuant to Senate Bill 737.” Rogue Basin Plan at 16. There is no indication from the methodology that DEQ has used any effluent samples collected for the SB 737 analysis were evaluated for use in developing the 303(d) list. To the extent that DEQ came to certain conclusions within the context of SB 737, those conclusions are not necessarily valid within the meaning of Oregon's water quality standards. Similarly there is no indication that DEQ has used any effluent monitoring data from elsewhere in the state. *See, e.g.*, DEQ Stormwater Data 12Z and 12COLS Copy.xlsx (stormwater monitoring data from 2006 to 2009) (attached); DEQ Response to Comments from Columbia Riverkeeper Re: Proposed NPDES Permit for the City of The Dalles, Permit No. 101728 (Feb. 7, 2014)(attached). DEQ is required to use effluent data where it is relevant to evaluating compliance with water quality standards in the Rogue and throughout the state.

The Rogue Basin Plan states that “[b]oth DEQ and ODFW have applied for in-stream water rights in some basins.” *Id.* at 27. DEQ does not make clear in the methodology whether it includes all information based on its applications for in-stream water rights in developing its 303(d) list in the Rogue and other basins across the state.

The Rogue Basin Plan states that “[t]he US Army Corps of Engineer dams at Lost Creek Lake and Applegate have submitted Temperature TMDL Water Quality Plans to DEQ. The USACE employs reservoir release strategies[.]” *Id.* at 27. DEQ does not indicate whether it has obtained any data and information from government and private dam owner/operators regarding the temperature and other quality of their discharges, modeling of their reservoir and discharge

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Available at <http://www.deq.state.or.us/lab/wqm/toxics.htm>

operations, or other types of data that pertain to assessing compliance with Oregon's water quality standards in the Rogue and throughout the state.

The Rogue plan also makes clear that DEQ collects data on contaminated sediment, none of which DEQ uses in its 303(d) listings:

The metals aluminum, antimony, arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, selenium, silver and zinc were detected in estuary sediments. Tin was the only metal not detected. There are published Effects Range Low (ERL) and Effects Range Median (ERM) concentrations for 9 of the 15 metals detected (Long, MacDonald, Smith and Calder 1995). Arsenic, copper, and chromium exceeded the ERL in every sample. Mercury narrowly exceeded the ERL in one sample. Median nickel concentrations were five times the ERM. EPA's Mid-Atlantic Integrated Assessment ranked sediments exceeding one or more metal ERL as intermediate, and those exceeding any ERM as poor. For polycyclic aromatic compounds the acenaphthene concentration marginally exceeded the ERL in one sample, and anthracene met its ERL in another. PCBs 8 and 52, and the pesticides Heptachlor and Lindane (gamma-BHC) were detected in one sediment sample; Heptachlor, Lindane, and Endosulfan Sulfate were detected in another."

Id. at 28. DEQ demonstrates in this basin plan not only that it collects sediment data but that it is capable of evaluating the data in terms of the risk presented by the contamination by toxics substances. This is the very same evaluation that DEQ is required to perform in applying its narrative criterion on toxic substances but which, as described *supra*, it fails to do. DEQ has failed to use its data and information on contamination of sediments to assess compliance with its water quality standards and develop its 303(d) lists as required by federal law.

The Rogue Basin Plan observes that

Benthic infauna were collected on each survey. The New Zealand Mud Snail (*Potamopyrgus antipodarum*) was found in 1999 and 2001. The 2004 sample didn't contain New Zealand Mud Snail but three other exotic species were identified. 1999: *Potamopyrgus antipodarum* (5 individuals), 2001: *Potamopyrgus antipodarum* (3,797 individuals), 2004: *Heteromastus filiformis* (exotic species), *Pseudopolydora kemp* (exotic species), and *Mya arenaria*.

Id. at 29. This demonstrates that DEQ not only has access to data and information on invasive aquatic species from other sources but from its own surveys. DEQ is required, as described *supra*, to use these data in developing its 303(d) list for the Rogue and all other basins.

In the Rogue Basin Plan DEQ states that:

There are currently 22 active CAFO permits in the Rogue Basin. Thirteen are in compliance with all of the permit requirements. Each permitted CAFO receives a routine inspection from the area Livestock Water Quality Inspector once a year, on average. . . . When a discharge occurs or where there is a potential for a discharge to occur, ODA may take samples of the effluent to determine bacterial concentrations. Surface water quality samples are taken when visual or anecdotal

evidence of discharge is present. Some of the NONs issued in the Rogue Basin have recorded the release of high levels of bacteria establishing the potential for CAFOs to impact bacteria levels in the Rogue River. . . . Over 100 NONs have been issued in the Rogue Basin since 1999.

Id. at 53. DEQ does not indicate in its methodology whether it uses the data and information obtained through its permitting program, including its CAFO permitting program, to ascertain compliance with water quality standards. The absence of discussion in the methodology likely indicates that DEQ does not. But the Rogue Basin Plan demonstrates that DEQ has access to these data and information that DEQ is obligated to assess in compiling its 303(d) list of impaired and threatened waters in this basin and across the state.

2. DEQ Fails to Use Nonpoint Source Assessments As a Basis for 303(d) Listings

The Rogue Basin Plan also provides insight into DEQ's treatment of its nonpoint source assessments in developing its 303(d) lists:

“Insufficient data” is a category of the Water Quality Assessment database identifying segments where more data is needed in order to make a determination of water quality impairment. In the Rogue Basin, all the sedimentation segments categorized as “Insufficient data” were based on DEQ's 1988 Nonpoint Source Assessment. *The NPS Assessment established that there were moderate or severe observed impairments*, but the supporting data needed to be collected or obtained from partners.

Id. at 25 (emphasis added). DEQ abuses its discretion when it concludes that its assessments established that there were “moderate or severe observed impairments” but concludes that none of these assessments support a finding that a water is impaired and should be placed on the 303(d) list. As discussed *supra*, EPA guidance requires the use of “observed effects” as the basis for 303(d) listings. 2006 Guidance at 67-68.

A review of more recent nonpoint source assessments reveals yet additional sources of data and information that it appears DEQ has not used. *See* DEQ, Water Quality, Nonpoint Source Pollution.¹³⁸ For example, the most recent report discusses monitoring programs that include the Pesticide Stewardship Partnership obtains “[d]ata identifying current use pesticides found in surface water [that] is shared with growers to help them target management practices that reduce pesticides in water.” DEQ, Oregon Nonpoint Source Pollution Program 2012 Annual Report (June 2013) at 13.¹³⁹ The report also states that “In 2009, DEQ expanded the number of pesticides included in its laboratory analytical suite from 12 to approximately 100. . . . Although many of these newly monitored pesticides do not have in-stream water quality criteria, the EPA Office of Pesticides has established aquatic life benchmarks that can assist DEQ and others in assessing the potential effects of pesticides detected.” *Id.* at 27. Likewise, DEQ participates in an interagency team called the Water Quality Pesticide Management team, which “reviewed

¹³⁸ Available at <http://www.deq.state.or.us/wq/nonpoint/reports.htm>

¹³⁹ Available at <http://www.deq.state.or.us/wq/nonpoint/docs/annualrpts/OregonNPSprog2012.pdf>

pesticide monitoring data in the context of EPA OPP Aquatic Life Benchmarks, which are used as a screening tool to evaluate monitoring data for pesticides of interest and pesticides of concern when numerical Water Quality Standards are unavailable.” *Id.* at 29. Despite this effort it does not appear the data were used on the proposed 303(d) list. Of course, as previously discussed, the nonpoint source assessment also notes that DEQ also collects and analyzes data that it fails to use in 303(d) listing through the following programs: volunteer monitoring, coastal beach monitoring, toxics monitoring in sediment and tissue, and trend monitoring. It also describes

New sampling was performed as part of Phase III of the Drinking Water Source Monitoring project in early 2012. The locations of the source water sampling were selected based on detections of nitrates and other contaminants of concern in SDWIS monitoring. The samples were taken above the surface water intakes and at wells for analysis of a list of over 250 Oregon-specific herbicides, insecticides, pharmaceuticals, VOCs (including cleaners), fire retardants, PAHs, personal care products, and plasticizers.

Id. at 36. It is not clear that these data from Phases I, II, or III were used in the proposed 303(d) list.

C. Commenters Submission of Siuslaw River Mussel Study

The Siuslaw Watershed Council, with a grant from EPA, completed a freshwater river mussel study and related water quality for the Siuslaw River. Siuslaw Watershed Council, Siuslaw River Mussel Study.¹⁴⁰ This study investigated the rapid decline of the *Margaritifera falcata* (Western Pearlshell) mussel, focused in particular on the dissolution of calcium from shells. The study evaluated fluctuations in water hardness in low-calcium carbonate waters of Oregon’s Mid-Coast Basin. While dips in pH are relevant to the survival of freshwater mussels and other aquatic species, the water quality also has ramifications for the availability of metals which dissolve faster as pH decreases. Specifically, this report posits that “[l]ow calcium watersheds in the Coast Range are at increased risk of toxic effects from many contaminants, even though the contaminant levels overall may be less than those found in other regions[.]” *Id.* at 6. The report states further that “[e]levated levels can readily be demonstrated in the Siuslaw and similar geographic areas on the mid coast. Water and tissues of stream organisms have measurable levels of lead, cadmium, and methylmercury.” *Id.* Moreover, DEQ’s use of only its numeric criteria fails to detect the problem because “[t]he current ODEQ practice of assuming that the hardness-dependent metals should only be evaluated down to a hardness level of 25 mg/l CaCO₃ is harming adequate water quality assessments in waters that are commonly 6 to 24 mg/l [and which] may dip lower yet under acidification event pressures.” *Id.* at 8. We hereby submit this report to support 303(d) listings in coastal watersheds.

IV. OREGON’S SUBMISSION TO EPA VIOLATES FEDERAL LAW

When a state submits its proposed 303(d) list to EPA for review and action, it is required to provide documentation to support its determinations to list or not list waters. 40 C.F.R. § 130.7(b)(6). This documentation must, at a minimum, include a description of the methodology, a description of the data and information used to identify the waters, and a rationale for any

¹⁴⁰ Attached.

decision to not use any existing and readily available data and information[.] *Id.* at (i)-(iii). In addition to this documentation and the list, the state is required to include a priority ranking for all listed segments still requiring TMDLs and specifically include the identification of waters targeted for TMDL development in the next two years. 40 C.F.R. § 130.7(b)(4).

A. Oregon Fails to Describe the Data and Information Used to Identify Waters as Impaired

The Department has access to many studies. However, the public cannot evaluate whether the Department has in its possession all of the studies that it should have because it has not chosen to make that information available, as required. The only way in which the public can ascertain whether DEQ is using data or information is to tediously look up pollutants on individual waterbodies. It is difficult to review the data base to evaluate what data DEQ has, what data it is using, and how it is treating the data. This is in part because the only way to look up data on toxic contaminants is to conduct a search on each individual toxic constituent. And this does not answer the question of whether DEQ has the data or information but is choosing not to use it because, for example, it has decided not to use tissue residue data or information on suppression of wildlife reproduction. DEQ's comments in the database are frequently not clear in describing why the data or information are inadequate. Therefore, the reviewer must rely exclusively on the methodology to interpret the database. When a public reviewer then comments on the methodology, DEQ dismisses the comments as not applicable to the proposed list. In 2010, for example, it was not clear if DEQ was continuing to use the limitations it established previously that toxicity can only be demonstrated if there are also beneficial use impairments based on bioassays. The result of this protocol was to effectively remove most sediment contamination from the 303(d) list. In both the 2010 and 2012 methodologies, DEQ has been silent and there is no evidence that DEQ uses any sediment data.

B. Oregon's Response to Public Comments Fails to Meet Federal Requirements to Provide a Rationale for Not Using Any Existing and Readily Available Data and Information

DEQ's response to public comments on its proposed 2010 list, held in two phases, was not adequate. *See* DEQ, Response to Comments on Oregon's Draft 2010 Integrated Report (Jan. 2011) (hereinafter "2010 Response");¹⁴¹ DEQ, Response to Comments on Final Supplement to Oregon's 2010 Integrated Report (May 2011).¹⁴² As a consequence, DEQ has failed to meet EPA regulations that require the state to provide a rationale for any decision to not use any existing and readily available information and data. For example, NWEA's comments in 2010 stated that DEQ 30-day "call for data" between May 11 and June 11, 2009, *see* 2010 Methodology at 5, "was the first time that DEQ had accepted data from any source since May 2003, a period of 7 years and 7 months." NWEA 2010 Comments at 26. In contrast to the specificity and implications of this comment to the question of whether Oregon has used all existing and readily available data and information as required by EPA regulations, DEQ provided EPA with the following summary: "Commenter (4) suggested DEQ's call for data in

¹⁴¹ Available at <http://www.deq.state.or.us/wq/assessment/docs/2010ResponseToComments.pdf>

¹⁴² Available at <http://www.deq.state.or.us/wq/assessment/docs/2011ResponseToComments.pdf>

2009 was not adequate.” 2010 Response at 9. Likewise, NWEA’s extensive comments on readily available data and information were dismissed without including them or responding to them in the response to comments. *See id.* Again, DEQ failed to provide EPA with the required rationale for not using any existing and readily available data and information required by federal regulations and as discussed *supra*, by simply ignoring the public comments that pertained to this fundamental concern.

C. Oregon Has Failed to Include a Priority Ranking for All Listed Water Quality Limited Segments Still Requiring TMDLs

DEQ’s proposed list does not include a priority ranking for all listed water quality limited segments requiring TMDLs nor the identification of waters the state intends to develop TMDLs for in the next two years, and is therefore inconsistent with federal regulations.

Conclusion

We look forward to Oregon’s completing a thorough evaluation of all available data and information for state waters as compared to its applicable water quality standards. Such an accurate 303(d) list will support the regulatory programs of the Clean Water Act to ensure protection of the state’s designated and existing uses.

Sincerely,

A handwritten signature in black ink, appearing to read "Nina Bell". The signature is fluid and cursive, with a large loop at the end.

Nina Bell
Executive Director

cc: David Croxton, EPA

Attachment: CD (via courier)