

Date: Jan. 8, 2018

To: Environmental Quality Commission

From: Richard Whitman, Director 

Subject: Agenda item L, Informational item: Water Quality Standards Triennial Review and Workplan
Jan. 18-19, 2018, EQC meeting

Why this is important The Clean Water Act requires that states review water quality standards at least every three years, and revise as necessary. DEQ completed a comprehensive water quality standards review, known as the Triennial Review, in 2017, which will guide the water quality standards program work over at least the next three years.

Purpose of item Staff will describe the process DEQ followed to inventory and prioritize water quality standards work needs, and the resulting projects DEQ plans to initiate between now and 2020.

Recent activity Between March and November 2017, DEQ staff conducted a planning process to identify water quality standards work needs and to select the high-priority projects the water quality standards program plans to undertake between June 2017 and June 2020. The standards work needs included reviewing and revising certain water quality standards through rulemaking, as well as developing implementation procedures for existing standards. The attached report describes the planning process and summarizes the comments received. The report also describes the high-priority projects and provides a general timeline laying out when DEQ expects to initiate and complete those projects, included as Appendix A of the attached report.

During the planning process, DEQ staff completed the following activities:

- Organized approximately 40 water quality standards project descriptions, assigned draft priorities, and shared resulting documents on internal and external websites
- Coordinated an internal review period in April and May 2017 including web presentations, staff meetings, and an internal comment sharing forum
- Presented two webinars to tribal government representatives in June 2017
- Held six public meetings in late June 2017, in Portland, Pendleton and

Eugene

- Held a public review period for submission of written input between June 9 and Aug. 15, 2017
- Considered internal and external input in assembling a proposed workplan of projects to initiate by June 2020
- Documented the review process and comments received in DEQ's 2017 Triennial Review Report

The next steps for the project include making the 2017 Triennial Review Report and Workplan available online and formally providing the document to EPA.

Attachment A. 2017 Triennial Review Report and Workplan

EQC involvement There is no commission action requested at this time. DEQ will inform the commission as staff initiates water quality standards rulemakings and will bring proposed rule revisions to the commission for action following public hearings and other rulemaking requirements.

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Water Quality Standards Review & 2018 - 2020 Program Priorities

December 2017

Water Quality Standards

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Item L 000003

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Executive Summary

The purpose of this report is to document the Oregon Department of Environmental Quality's 2017 Triennial Water Quality Standards Review and planning process. The report includes a summary of internal and external comments received, and DEQ's plan for standards review and revision projects through 2020. DEQ has completed water quality standards revisions over the past 10 years for human health toxics, ammonia, bacteria, and copper as well as other minor revisions, corrections and clarifications. DEQ also conducted the state's first use attainability to remove certain uses and adopt new water quality standards for an irrigation canal near Hermiston, Oregon in 2012. DEQ also designated Oregon's first Outstanding Resource Waters in July 2017. During this time period, many water quality standards issues have come to DEQ's attention from internal staff, state and federal agencies and the public. DEQ conducted this Triennial Review to elicit comments from internal DEQ staff, public agencies, tribal governments, non-governmental organizations, and the public about the standards review and revision projects that DEQ should initiate in the next three years. DEQ held an internal review period in April and May 2017 and an external review period between June 9 and August 15, 2017, including six public meetings held in three locations around the state. DEQ also invited tribal governments to participate in two informational webinars and presented information about the Triennial Review by conference call to the Environmental Justice Task Force.

DEQ assembled draft documents for public review that organized approximately 40 potential projects into proposed high, medium or low priorities. DEQ assigned draft priorities based on gains in ecological or administrative value, urgency imposed by external decisions, the level of effort required and available staff resources. DEQ also considered risks to project success such as stakeholder support or opposition, lack of agency experience, and unknown resource requirements.

Comments from DEQ staff indicate that standards projects in the following areas are the highest priority: procedures to implement narrative criteria, clarifications to support permit development, updated aquatic life use designations and geographic information, and housekeeping corrections. Projects receiving the most external comments, in both support and opposition were: narrative criteria implementation (e.g. toxics, sediment, nuisance algal growth, antidegradation), temperature and mercury variances, fish use/aquatic life use updates, natural conditions criteria replacement or alternative, and designating outstanding resource waters.

Oregon has not adopted EPA recommended aquatic life criteria for selenium, acrolein, carbaryl, diazinon and nonylphenol nor has it adopted EPA's updated (2015) criteria to protect human health. In the next three years, DEQ does not plan to initiate rulemaking to adopt these new and updated recommended 304(a) criteria for the following reasons: first, based on DEQ's evaluation of needs for the water quality program, other standards program efforts are a higher priority for Oregon at this time because they will respond to federal requirements or address other water quality protection or permitting program needs; and second, DEQ's existing human health criteria adopted in 2011 establish a high level of protection for human health. However, within this time period, DEQ will begin to evaluate information relevant to a recommendation whether or not to adopt the new aquatic life criteria.

Based on the internal and external review, as well the need to respond to requirements from external entities, DEQ recommends completing or initiating seven standards-related projects during the next three years:

1. a cold water refuge plan for the lower Willamette River,
2. a response to four individual variance applications received in summer 2017,
3. a regional or statewide methylmercury variance,
4. fish and aquatic life use updates,
5. a temperature standard strategy, including temperature variances and potentially site specific criteria or other criteria revisions,
6. clarification of the warm-, cool- and cold-water aquatic life definitions used in the dissolved oxygen standard, and
7. evaluation of the need for and scope of rulemaking to adopt new or revised aquatic life criteria for selenium, acrolein, carbaryl, diazinon and nonylphenol.

In addition, DEQ plans to initiate one or more of the following projects in the next three to five years, as time allows, beginning with background research and defining the project scope:

- implementation procedures for the narrative toxics criterion,
- implementation procedures for the narrative sedimentation criterion, or
- examining how water quality standards revisions or implementation procedures could fill potential gaps in wetlands protection.

Report appendices include a water quality standards program work plan for the seven projects DEQ plans to complete or initiate in the next three years (Appendix A), the full list of water quality standards project needs shared in the public review period (Appendix B), and a summary of all external comments received (Appendix C).

The purpose of this report is to document DEQ's 2017 Triennial Review process, internal and external comments received, and a plan to complete or initiate certain standards review and revision projects by mid-2020. Water quality standards designate how water body uses will be protected, establish criteria to protect water quality for those uses, and prevent degradation. The Clean Water Act¹ requires states to periodically, no less frequently than every three years, review and revise water quality standards and hold public hearings about those changes. Between February and August 2017, DEQ undertook a review of water quality standards to prioritize standards review and revision projects that may be initiated over the next three years from the date of this report.

1. Background

DEQ has completed many water quality standards reviews over the past 10 years. DEQ undertook rulemaking to establish or revise criteria for the following parameters: arsenic, iron, and manganese (2011), human health toxics (2011), ammonia (2015), bacteria (2016), and copper (2016). EPA promulgated the acute water quality criterion for cadmium in freshwater for Oregon in 2017. DEQ undertook fish use map and other temperature standard revisions and corrections in 2007. DEQ made corrections and clarifications to the toxics standard in 2013. In addition, DEQ conducted a use attainability analysis and adopted new water quality standards for the West Division Main Canal, near Hermiston (2012), and completed Oregon's first Outstanding Resource Waters designation (July 2017) for the North Fork of the Smith River.

In 2013, EPA disapproved Oregon's general narrative² and temperature³ natural conditions criteria. This disapproval followed an Oregon District Court stipulated order⁴ remanding the natural conditions criteria to EPA and requiring action. This order also included a requirement for EPA to review Oregon's antidegradation implementation plan to ensure that the plan did not circumvent the purpose of Oregon's antidegradation policy. In response to EPA's review, DEQ issued a memo clarifying procedures to protect existing uses under DEQ's Antidegradation Policy (November 2014)⁵ and is currently preparing additional memos addressing other issues raised by EPA.

The triennial review presents an opportunity to review, prioritize, and respond to the many water quality standards issues that come to DEQ's attention from internal staff, state and federal agencies and the public. For example, DEQ occasionally receives new scientific and geographic information that affects designated uses or necessary levels of water quality protection. In other cases, DEQ may need to revise standards to address Endangered Species Act or federal Clean Water Act regulations and recommendations, as well as comply with court decisions. Within the agency, DEQ staff members periodically suggest standards revisions or procedure development to help DEQ's implementation of water quality standards be more consistent, protective and efficient when writing permits, developing total maximum daily loads or issuing water quality certifications.

The DEQ Water Quality Standards section is currently working on several standards-related projects expected to continue into 2018 or 2019. First, at the request of EPA, DEQ plans to clarify definitions of cold-water, cool-water, and warm-water aquatic life, particularly as they pertain to the dissolved oxygen standard. Second, in response to the National Marine Fisheries Service 2015 Biological Opinion on Oregon's temperature standard, DEQ is developing a Cold Water Refuge Plan for the lower 50 miles of the Willamette River. The plan will evaluate the degree to which the Willamette River satisfies the narrative criterion that migration corridors must provide sufficient cold water refuges. Third, in late spring 2017, DEQ began coordinating work related to implementation of the methylmercury standard, including consideration of developing a mercury multiple discharger variance. And lastly, in summer 2017, DEQ received applications for four variances for mercury from municipal wastewater treatment plants that DEQ must evaluate, act on, and if adopted and approved, incorporate into the relevant permit.

¹ 33 U.S.C. §1251 et seq.

² OAR 340-041-0007

³ OAR 340-041-0028

⁴ <http://www.oregon.gov/deq/FilterDocs/tempSigOrderWQCritMD.pdf>

⁵ <http://www.oregon.gov/deq/wq/Pages/WQ-Standards-Antidegradation.aspx>

2. Review Process

DEQ conducted this Triennial Review to solicit input from internal DEQ staff, public agencies, tribal governments, non-governmental organizations, and the public about standards review and revision projects that DEQ should initiate in the next three to five years. DEQ organized potential project descriptions into draft high, medium and low priorities based on DEQ staff judgment of each project's environmental and administrative value, urgency to meet internal and external needs, and resource constraints. DEQ also encouraged commenters to suggest standards review and revision needs that were not on the draft prioritized project list. Appendix A of this report contains the workplan resulting from this water quality standards review. Appendix B contains the water quality standards project needs descriptions shared with the public during the review period. Appendix C contains a summary of the external comments received during the review period.

2.1 Internal Review

DEQ held an internal comment period in April and May 2017. Standards section staff compiled descriptions of potential standards review and revision projects into tables and posted that information on a shared internal website. Standards section staff also arranged webinars, conference calls, staff meeting presentations, and internal informational meetings. DEQ staff submitted many thoughtful and helpful comments via the internal shared website and via e-mail to standards section staff or an e-mail box set up particularly for the Triennial Review.

2.2 External Review

DEQ conducted an external review period between June 9 and August 15, 2017. DEQ issued a public notice on June 9, announcing the opening of the review period and the times and locations for six public meetings held around the state. DEQ sent an e-mail announcement of the review period and public meetings to over 6,000 GovDelivery subscribers on June 12, 2017. DEQ held two public meetings in Eugene on June 26, two in Portland on June 27, and two in Pendleton on June 28, 2017. The Portland meetings were also accessible by web and conference phone connection. DEQ regional Public Affairs staff sent notices of public meetings to county health departments and local community organizations. DEQ Headquarters Public Affairs staff posted information about the review period and public meetings via agency Facebook and Twitter accounts. While the public meetings were not formal hearings, DEQ provided comment forms for participants who wished to submit written input at the meetings.

DEQ invited tribal governments to participate in two informational webinars on June 13 and 23, 2017. DEQ staff also presented information about the Triennial Review by conference call to the Environmental Justice Task force on June 9, 2017.

DEQ posted a fact sheet, descriptions of potential standards review and revision projects, and slide presentations about the Triennial Review on the agency's external website. DEQ accepted comments from the public at public meetings and via postal mail, fax, and e-mail. DEQ received multiple requests to extend the public comment period beyond the original closure date of July 14, 2017. DEQ agreed to extend the public comment period by an additional 30 days through 5 p.m. on August 15, 2017, and notified each of the organizations that had requested the extension by telephone or e-mail. DEQ also sent a notice of the public comment period extension via the initial GovDelivery list and posted this information on the Water Quality Standards page of the agency external website.

2.3 Priority Rating Elements

DEQ staff considered several factors when assigning preliminary priorities of high, medium or low to potential standards review and revision projects. DEQ considered these rating elements: value, urgency, level of effort and risk to project success. Staff considered both ecological value (such as increased protection for threatened and

endangered species or human health) and administrative value (such as improved efficiency and consistency in implementing a standard). Projects deemed most urgent were those influenced by external requirements and inflexible deadlines, such as federal agency disapprovals or schedules associated with court decisions or litigation. Projects were also considered urgent if water quality program work, such as issuing permits or completing TMDLs, was impeded due to a standards issue that the project could resolve or correct. Staff weighed the likely level of effort required to complete the project, including such factors as whether guidance or precedence is available, whether research is needed, and whether the change will require multiple agency approvals. Finally, staff considered risks to project success such as stakeholder opposition or level of controversy, lack of DEQ or EPA experience, lack of data and information, and unknown resource commitment needed.

DEQ encouraged internal staff to consider these factors when suggesting new standards related projects – including being clear about the problem and the value and urgency of the solution. For the external review materials, DEQ summarized an overall priority for each project and provided DEQ’s reasoning for that priority assignment.

3. Summary of Comments

DEQ staff from multiple programs (stormwater, total maximum daily loads, permitting, section 401 dredge and fill, section 401 hydropower, integrated water resources, and basin coordinators) commented on the draft list of projects and contributed ideas for additional standards reviews and revisions. Comments received from DEQ staff indicated their highest priority standards projects were those that would help them do their work more effectively and efficiently, such as projects that developed or clarified procedures, explained how water quality standards should be implemented, or updated information.

External commenters included five individuals and representatives from the following organizations: Columbia Riverkeeper, Northwest Environmental Advocates, Idaho Power Company, Oregon Farm Bureau, Oregon Trout, Oregon Environmental Council, Friends of the Kalmiopsis, Oregon Association of Clean Water Agencies, the Center for Biological Diversity, Portland General Electric, Northwest Hydroelectric Association, Midcoast Watershed Council and The Freshwater Trust. Tribal government representatives from the Columbia River Intertribal Fish Commission and Confederated Tribes of the Umatilla Indian Reservation also commented. Commenting agencies included the Oregon Department of Fish and Wildlife, Portland Water Bureau and EPA Region 10.

3.1 Internal Review Comments

Standards projects in the following areas appear to be highest priority for DEQ staff: implementation procedures for narrative criteria, clarifications and revisions to assist with permitting, updated fish and aquatic life use designations and mapping, and housekeeping corrections.

Implementation procedures for narrative criteria

Implementation procedures would help staff apply narrative criteria to permitting, data collection and analysis, and water quality assessment. These procedures could help staff make consistent and efficient decisions and more effectively communicate the reasoning behind decisions to the public and permittees. Staff commented that implementation procedures would be particularly helpful for the following narrative criteria: biocriteria (for large streams), sediment (choosing most appropriate methods), and toxics (consistently evaluating whole effluent toxicity testing results).

Rule clarifications and revisions related to permitting

Permitting staff made suggestions requesting clarification on how to implement certain criteria and “guide values” (e.g. turbidity and total dissolved solids). Staff also commented that variances could be a helpful tool for issuing permits with requirements for progressive pollutant reduction when permitted facilities can’t meet water quality based effluent limits.

Updates of aquatic life use designations

Staff from multiple programs commented that updated, accurate and geographically referenced information about what criteria apply where is essential to efficient performance of their work. DEQ has a geo-referencing project currently underway, which will partially address these comments. Clarification in rule text, tables and maps of dissolved oxygen criteria designations and resident trout spawning locations are also high priorities for staff.

Additional Clarifications and Corrections

Staff requested procedures for applying certain criteria and identified multiple small but substantive corrections needed to definitions, cross references, tables and maps in OAR 340-41.

3.2 External Review Comments

DEQ received a number of comments from external reviewers. In some instances, DEQ received comments both supporting a particular standards project as a high priority and others recommending against DEQ expending resources in that area. Table C-1, in Appendix C, summarizes the comments received for each of the projects DEQ had designated high priority and for three medium priority projects. This section summarizes the main themes of external review comments received. For a summary of all comments received from the public and tribal governments, see Table C-2 of this report.

Toxics Narrative Standard

Several commenters supported DEQ undertaking a review and researching methods and approaches to implement Oregon's narrative toxics criterion. The review and research would inform a potential revision of existing implementation procedures that describe the available and appropriate tools for regulating the discharge of toxic pollutants that have no numeric criteria. One commenter did not agree that this was a high priority need, noting that existing whole effluent toxicity procedures are sufficient to quantify environmental effects from toxic pollutants without numeric criteria.

Fish Use and Aquatic Life Uses

Several commenters supported DEQ initiating a project to update rules to reflect currently known locations of resident trout spawning and to update fish use designations generally. One commenter recommended against resident trout spawning use designation, as well as clarification in the dissolved oxygen standard of warm-, cool-, and cold-water habitat, without a comprehensive review of the entire DO standard.

Variances

Commenters submitted different opinions about the extent to which DEQ should expend effort to develop variances addressing methylmercury and temperature criteria. Several commenters recommended that variances not be used as pollution loopholes or compliance exemptions without requirements to reduce pollutant inputs. Associated comments pointed out that mercury and temperature pollutant loads come primarily from nonpoint sources and DEQ's work should focus on attaining nonpoint source TMDL load allocations, rather than point source variances. One commenter indicated a preference for individual variances over multiple discharge variances as individual variances could encourage progress and innovation.

Commenters generally supported the revision of the Variance Internal Management Directive and rules to be consistent with EPA's 2015 revisions to the governing federal regulations. One commenter supported variances as a priority only with the qualification that the standards themselves – temperature and mercury -- are unreasonably low and DEQ's efforts should first focus on developing a process to address situations where natural conditions prevent attainment of criteria.

Additional comments suggested that DEQ consider how extreme atmospheric conditions and climate change will make achieving numeric temperature criteria difficult. One commenter suggested DEQ approach a temperature variance in association with other standards revisions related to temperature (e.g. natural conditions criteria, aquatic life criteria, cold water refuges). Several commenters opposed DEQ's development of a temperature

variance on the basis that a basinwide or statewide variance would be unlikely to sufficiently protect beneficial uses.

Strategy to Address Natural Conditions

Several commenters supported developing an approach to address situations where natural conditions prevent attainment of water quality criteria, including temperature. One commenter recommended that any approach should first assure protection of aquatic life uses and consider how overall species resiliency has been affected by degraded habitat. The Bull Run/Sandy Basin Habitat Conservation Plan was suggested as an example of a Natural Conditions Criterion approach. One commenter recommended prioritizing development of a Natural Condition Criterion replacement higher than developing variances, while another commenter recommended the opposite.

Designate Outstanding Resource Waters

Several commenters recommended designating additional Outstanding Resource Waters, naming several rivers in southwestern Oregon. One commenter recommended against designating further Outstanding Resource Waters until DEQ develops screening criteria for such designations.

Narrative Standard Procedures and Policies

Multiple organizations commented in support of DEQ developing procedures to clarify implementation of one or more narrative criteria, such as sediment, nuisance algal growth, and antidegradation. Several commenters suggest implementation of the sediment narrative criteria to address nonpoint sources and to better identify impairment.

Development of procedures and rule revision to clarify antidegradation implementation was the highest priority of one commenter. The commenter's particular recommendations were to update the antidegradation policy to reflect EPA's 2015 revisions to the governing federal regulations and EPA's 2013 review of Oregon's water quality standards, noting that the latter identified several points that DEQ needed to address in this policy. Another commenter agreed that DEQ should update its antidegradation policy but only narrowly – to be consistent with EPA 2015 regulations focusing on public involvement and alternatives analysis.

New criteria or additional protections

Several commenters encouraged DEQ to adopt EPA's new or revised Clean Water Act section 304(a) criteria recommendations, with particular emphasis on nonylphenol, if not in this triennial review, then the next one. EPA commented that if Oregon chooses not to adopt these criteria during this triennial review, DEQ must explain that choice pursuant to the federal regulations governing states' adoption of recommended criteria.

Multiple organizations recommended a higher priority for nutrient criteria development and standards to address algal growth and ocean acidification as deterrents to nonpoint source pollution. If the criteria development could not take place during this triennial review, commenters suggested DEQ at least engage in necessary data collection to be prepared to develop criteria in the next triennial review.

Multiple commenters supported development of wetlands criteria or addressing wetland protection through application of Tier 1 antidegradation protections. Commenters also noted the need for protection of thermal refuges in hyporheic zones. Two commenters recommended DEQ review and revise the Total Dissolved Gas criteria, considering recent scientific information about levels at which fish impairment occurs.

Individuals also recommended that DEQ adopt rule language pertaining to water quality conditions local governments should consider when making exceptions to land use goals, particularly those concerning biosolids applications and pharmaceuticals.

4. Standard Revision Projects

4.1 EPA National Recommended Criteria (304(a))

EPA's water quality standards rules require states to explain why they opt not to adopt new or revised 304(a) recommended criteria during a triennial review. In recent years, DEQ has adopted and EPA has approved the following water quality criteria recommended by EPA under section 304(a) of the Clean Water Act:

- Aquatic life criteria were adopted in 2004. Following Endangered Species Act consultation, some were approved and some were disapproved by EPA in 2013. Based on this action, DEQ proceeded to undertake the following revisions to address the disapproval:
 - Corrections and clarifications to several pesticides and selenium were adopted in 2013 and approved by EPA.
 - Ammonia criteria revisions were adopted in 2015 based on EPA's 2013 recommended criteria, and approved in 2015.
 - Copper criteria were adopted in 2016 based on EPA's 2007 criteria, and approved in 2017.
- DEQ conducted rulemaking in 2011 to revise toxics human health criteria.
- DEQ conducted rulemaking in 2011 to revise arsenic, iron and manganese human health criteria.
- Bacteria criteria for contact recreation in Coastal Waters (enterococcus) were adopted in August 2016 based on EPA's 2012 Recreational Water Quality Criteria updates and approved by EPA in November 2017.

In addition, EPA promulgated acute cadmium criteria for freshwater on behalf of Oregon in early 2017 based on 304(a) criteria finalized in 2016; and EPA is finalizing 304(a) criteria for aluminum, which either EPA or DEQ must then adopt by March 2019⁶.

EPA has published new 304(a) aquatic life criteria for acrolein, carbaryl, diazinon and nonylphenol since EQC updated Oregon's aquatic life criteria in 2004. EPA updated the recommended selenium criteria for aquatic life in 2016. In addition, in 2015, EPA updated their recommended criteria to protect human health for 94 chemical pollutants⁷. DEQ has yet to adopt these criteria updates.

For the upcoming planning period of three years, DEQ does not plan to adopt the new or updated recommended 304(a) criteria for toxic substances for the following reasons:

- Oregon revised its human health toxics criteria in 2011 based on a fish consumption rate of 175 grams/day, the highest statewide rate in the nation. As a result, DEQ's criteria are very protective and most are already more protective than EPA's revised recommended 304(a) criteria. Of those EPA criteria that are more stringent than Oregon's, many are below detection or quantification levels and thus would be difficult to implement in Clean Water Act programs (Table 1). Therefore, the adoption of these criteria is not likely to result in a significant additional human health benefit in the near term. For these reasons, DEQ finds that other standards revisions will address more urgent needs for the water quality program and are therefore a higher priority in the near term.
- The projects identified in DEQ's workplan will fully utilize DEQ's available staff (comprised of 2.8 FTE) over the next three years and beyond. Other standards changes identified in DEQ's work plan are needed to respond to federal requirements or agreements made with EPA, or to address ongoing programmatic needs, particularly with respect to DEQ's permitting program.

⁶ At this time, DEQ expects to let EPA complete rulemaking for aluminum, rather than taking on aluminum rulemaking work.

⁷ <https://www.epa.gov/wqc/human-health-water-quality-criteria-and-methods-toxics>.

Table 1. Comparison of Current Oregon Criteria and EPA 2015 Recommended Criteria to Protect Human Health

	Current Oregon criteria more stringent than EPA recommended criteria	Non-quantifiable EPA recommended criteria more stringent than current Oregon criteria	Quantifiable EPA recommended criteria more stringent than Oregon's current criteria	EPA recommended criteria not included in Oregon criteria
Water + organism Criteria	47	21	21	3
Organism Only Criteria	85	15	7	5

With regard to EPA's new section 304(a) aquatic life criteria, as DEQ concludes work on the top priority projects described in Section 4.2 of this report, it will consider whether to conduct rulemaking to adopt these criteria. In particular, DEQ will evaluate the extent to which these pollutants are present in Oregon discharges or may enter Oregon waters. Moreover, DEQ will coordinate with EPA, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service to assess whether the criteria would be approvable following ESA consultation. This information will help DEQ evaluate whether state adoption of these criteria through rulemaking is a higher priority than work on the second tier of priority projects.

4.2 Water Quality Standards Review Workplan

Based on the internal and external review of DEQ's draft standards work priorities, as well the need to respond to requirements and schedules from external entities, DEQ plans to complete or initiate seven standards-related projects in the next three years, each of which is described in more detail below:

- 1) a cold water refuge plan for the lower Willamette River
- 2) a response to four individual variance applications received in summer 2017
- 3) a regional or statewide methylmercury variance
- 4) fish use and aquatic life use updates
- 5) a temperature strategy (including temperature variances and potentially site specific criteria or other criteria revisions)
- 6) clarification of the warm-, cool-, and cold-water aquatic life use definitions used in the dissolved oxygen standard.
- 7) an evaluation of the need for and scope of rulemaking to adopt new or revised aquatic life criteria for selenium, acrolein, carbaryl, diazinon and nonylphenol. Based on the information and conclusions, DEQ would initiate rulemaking as appropriate.

In Appendix A of this report, DEQ provides an estimated time frame for initiating and completing these seven projects.

The current resources available to do water quality standards work do not provide sufficient capacity to initiate additional projects prior to 2020. However, DEQ appreciated the detailed comments that several organizations and tribal government representatives submitted. Several commenters supported DEQ's proposal to review implementation procedures for the narrative toxics criteria, and recommended that DEQ develop implementation procedures for other narrative criteria, such as sedimentation. Commenters also asked that DEQ consider additional protections for wetlands.

As the seven top priority projects are completed, DEQ will review a second tier of project priorities informed by this triennial review to initiate between 2020 and 2022. DEQ's work will begin with scoping options for the following projects:

- 1) updating implementation procedures for the narrative toxics criterion,
- 2) developing implementation procedures for the narrative sedimentation criterion, or
- 3) examining how water quality standards revisions or implementation procedures may fill potential gaps in wetlands protection

Pertaining to updating implementation procedures for the narrative toxics criterion, DEQ would begin with a review of current Oregon procedures as well as procedures from other states. DEQ would evaluate the extent to which additional procedures would help to fill protection gaps or contribute to toxics reduction. Following such a review and evaluation, DEQ would update existing or develop additional procedures to implement the narrative toxics criterion.

As DEQ's work on the aquatic life criteria rulemaking, if it is recommended, and the narrative toxics criterion implementation procedure concludes, and should there be capacity before the next triennial review, DEQ would begin gathering information on Oregon and other state strategies to implement narrative sediment criteria and wetland water quality protections. DEQ would use this information to evaluate the scope and scale of these two projects, and then pursue the project determined to be the highest priority at that time. The deliverables for either project may include non-regulatory implementation procedures or revised rules.

Lower Willamette River Cold Water Refuge Plan

Oregon's temperature standard for the "migration corridor use" reach of the lower Willamette River includes a narrative provision regarding cold water refuges. DEQ has not yet determined how to evaluate the degree to which that narrative criterion is being attained. DEQ agreed to do this work as a result of the National Marine Fisheries Service's Biological Opinion (2015) on Oregon's temperature standard. DEQ has initiated the work, which has a completion deadline of November 2018. The resultant plan will help direct efforts that will bring high environmental value through habitat protection or restoration for threatened or endangered salmon and steelhead.

Response to Individual Variance Applications

DEQ received four variance applications in July 2017 and must process and respond to those applications. The variance applications apply to permit requirements associated with methylmercury criteria for Clean Water Services' four publicly owned treatment works within the Tualatin River Subbasin. The variances are needed in order to develop achievable limits and requirements within the Clean Water Services permit.

Methylmercury Strategy

DEQ identified a need for a methylmercury approach, such as a variance, that will enable permit issuance, protect beneficial uses, and require pollutant reduction. There is also a need to update Oregon's variance rules and DEQ's 2012 Variance IMD to be consistent with EPA's updated variance regulations adopted in 2015. Several commenters agreed that DEQ's 2012 Variance IMD should be updated to be consistent with EPA 2015 regulations. Since the time that DEQ conducted the internal and external review of water quality standards in spring and summer 2017, DEQ received applications for four individual variances associated with the methylmercury criteria. Separately, DEQ is party to a court order requiring completion of the Willamette Basin mercury TMDL by April 2019, meaning DEQ will be engaged in data analysis, modeling, and policy decisions related to multiple aspects of mercury pollutant reduction. Coordinating this work with near and longer term permitting needs is essential to ensuring DEQ has a cohesive regulatory approach to methylmercury, including issuance of permits.

Fish Use and Aquatic Life Use Updates

The Oregon Department of Fish and Wildlife and other agencies have several years of updated fish and aquatic life distribution information that is not currently reflected in Oregon's water quality standards. DEQ has done only minor updates to its aquatic life uses since 2003. ODFW is prepared to work with DEQ and provide this information as a basis for updating Oregon's fish and aquatic life use designations. These use updates have important internal and external drivers, such as requests from federal agencies, ensuring that standards protect the current use, and improving the efficiency of implementing standards in DEQ's permitting and TMDL programs. Commenters saw value in having maps and rules relate the most recent scientific information about fish presence and life stage. Updated maps that show where criteria based on fish and aquatic life presence apply will make permit review and water body assessments more expeditious and accurate.

Temperature Strategy

The current temperature criteria, absent the Natural Conditions Criterion, are not attainable in many waterbodies and portions of waterbodies across the state. Effluent limits based on the existing temperature criteria are not

achievable for many permittees that discharge to these waters. As well, TMDLs cannot be completed if they do not demonstrate attainment of the criteria.

DEQ acknowledges that several commenters recommended against developing temperature variances, and recommended that DEQ focus on enforcing TMDL load allocations to nonpoint sources. These are not exclusive efforts. DEQ will continue implementing the requirements of OAR 340-042-0070 and coordinating with designated management agencies, including other state agencies responsible for implementing nonpoint source pollutant reductions. At the same time, DEQ must continue to issue point source permits. A temperature strategy, which may include variances, will help DEQ issue timely permits and require sources to demonstrate continued reduction in thermal loads.

Temperature variances would likely be part of a temperature strategy, and criteria revisions may also be recommended. In addition, the National Marine Fisheries Service Biological Opinion on Oregon's temperature standards requires DEQ or EPA to review the need for a smoltification temperature criterion for the John Day River, a priority expressed by several commenters.

Dissolved Oxygen Clarifications

Oregon's dissolved oxygen standard includes different water quality criteria for cold-water, cool-water, and warm-water aquatic life and the current definitions of those classifications cause confusion. This project is urgent because EPA requested that DEQ make these revisions before it completed its next Integrated Report and DEQ agreed to do so. DEQ intended to initiate this project in fall 2017, but other priority projects have delayed the initiation of this work. DEQ continues to recognize the DO clarifications are among its highest priority projects.

Scope Rulemaking for new Aquatic Life Criteria

As DEQ concludes work on other high priority projects, DEQ will evaluate the extent to which acrolein, carbaryl, diazinon, nonylphenol and selenium are present in Oregon discharges or may enter Oregon waters. Based on this information and conclusions, DEQ will initiate rulemaking to adopt aquatic life criteria for these pollutants, as appropriate. This evaluation will include coordination with EPA, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service to ensure that the recommended criteria will be approvable following ESA consultation.

Narrative Procedures – Toxics

Both internal and external commenters saw value in updating DEQ's procedures to implement the narrative toxics criteria. Documenting procedures to guide the implementation of the narrative toxics standard helps permit writers be consistent and efficient. DEQ will identify potential gaps in protection for toxic pollutants that do not have EPA recommended numeric criteria and review procedures used by other states to address those concerns. Documented procedures would also help DEQ be transparent with the public about how the toxics narrative criterion is implemented.

Narrative Procedures – Sedimentation; Wetlands Protection

DEQ is aware of multiple methods to evaluate the impacts of sedimentation on aquatic species and has reviewed and evaluated some of those methods in the context of water quality assessment and TMDL development. DEQ also realizes the substantial resources that would be necessary to develop and adopt an agreed upon methodology to interpret and apply the narrative sediment criterion across Oregon's waters. Several commenters recommended that DEQ use the sedimentation narrative criteria to address non-point source pollution. DEQ expects any effort in scoping this work would build on past work and review methods used by other states to develop procedures to implement Oregon's narrative sediment criteria. Based on DEQ's evaluation, DEQ would review this project alongside its second tier of project priorities.

Internal and external commenters also recommended that DEQ review the adequacy of existing standards to protect wetland water quality and beneficial uses. DEQ will begin such a review should the urgency for wetlands protections appear to exceed the need to clarify narrative sediment criterion procedures. This project would begin with a review of other state strategies, EPA recommendations, and protections afforded by other Oregon agency rules.

Corrections and Clarifications

During the standards review, DEQ staff and others identified several small, but substantive needed corrections, such as errors in tables, maps, and text; outdated information; and misidentified cross references. DEQ may incorporate these corrections and clarifications into a rulemaking process during one of the above stated priority projects.

Appendix A – Triennial Review Work Plan Timeline

Projects to be initiated July 2017 – June 2020

Project	Outcome	2017	2018	2019	2020
1. Mercury Multiple Discharger Variance Strategy					
1.1. Planning & development	Methylmercury variances that allow permits to be issued and require mercury reduction.	x	x		
1.2. Rulemaking and Public Comment			x	x	
2. Clean Water Services Mercury Variances					
	Respond to applications for 4 variances for POTWs operated by CWS. Needed in order to issue the CWS permit.	x	x	x	
3. Lower Willamette Cold Water Refuge Plan					
3.1. Project planning, data assembly and development	A Cold Water Refuge Plan for the lower 50 miles of the Willamette River that evaluates whether narrative criterion is met, identifies existing refuges to protect or restore.	x	x	x	
3.2. Writing, peer review and submittal			x	x	
4. Dissolved Oxygen Clarifications					
Package with aquatic life use updates rulemaking	Clarify the use classification definitions used in the dissolved oxygen standard.			x	x
5. Fish and Aquatic Life Use Updates					
5.1. Planning, data assembly, development	Specify where and when resident trout spawning is a designated use with maps or a process-based designation. Designate an additional 33.5 miles of bull trout spawning and rearing habitat. Review and update fish use designations based on best available current information.			x	x
5.2. Rulemaking and public comment for rule revisions					x
6. Temperature Strategy					
3.1 Planning and development	Begin developing a scientifically sound, practical means, such as a waterbody or multiple discharger variance(s), to address situations where natural conditions protect uses or where criteria are not attainable due to natural conditions. Scope to include Willamette River, possibly other streams of the Willamette basin, or possibly statewide. May identify need for a temperature standard revision(s). Review need for John Day smoltification criteria during this process.	x	x	x	x
3.2 Variance Rulemaking and Public Comment				x	x
7. New aquatic life 304(a) criteria evaluation					
Evaluate whether to initiate rulemaking to adopt new aquatic life 304(a) criteria	A decision to initiate rulemaking for new aquatic life criteria, or to prioritize other work, such as implementation procedures for Oregon's narrative toxics criterion.				x

Appendix B – Water Quality Standards Project Needs Considered in Public Review Period

Table B-1: Draft High Priority Projects

Toxics – Human Health: Methylmercury		
Problem	Revision Needed and Outcome	DEQ's Reason for High Priority
Oregon's human health criterion for methylmercury is exceeded in fish tissue for most waters of the state where data has been collected. Some permitted facilities in the Willamette Basin can't meet effluent limits calculated using the fish tissue criterion and a bioaccumulation factor developed for the Willamette River.	Methylmercury variances would allow permits to be issued that require mercury reduction but also have permit requirements that are achievable and result in overall mercury reductions.	High environmental value through human health protection and other improvements that may be included in permits. High administrative value and urgency for permitting efficiency and effectiveness. This will allow DEQ to issue timely and protective permits.

Toxics – Narrative Criterion		
Problem	Revision Needed and Outcome	DEQ's Reason for High Priority
There are toxic substances for which DEQ has no numeric water quality criteria and new substances come into use over time. To ensure that human health and aquatic organisms are protected from the potential impacts of toxic substances, DEQ should review its procedures to implement the narrative toxics criterion.	Review and research methods and approaches to implementing Oregon's narrative toxics criterion. Revise DEQ's implementation procedures to describe the available and appropriate tools for regulating the discharge of toxic pollutants that have no numeric criteria.	High environmental value through human health and aquatic life protection. High administrative value for permitting efficiency and effectiveness. With clear procedures permit writers can do analysis more quickly, permittees will know what to expect and DEQ will be able to consistently apply the criterion.

Fish Use Updates – Resident Trout Spawning and Bull Trout		
Problem	Revision Needed and Outcome	DEQ's Reason for High Priority
The dissolved oxygen criterion for resident trout spawning applies to areas used for salmon and trout spawning in order to protect egg development. While DEQ has mapped salmon and steelhead spawning locations, DEQ's rules do not specify where trout spawning is located. Without this information, DEQ must either apply the spawning criterion or make a site specific determination that spawning does not occur, which can be time consuming. The U.S. Fish and Wildlife Service's 2015 Biological Opinion identified additional known bull trout spawning and rearing not included on DEQ fish use maps.	Specify where and when resident trout spawning is a designated use with maps or a process-based designation. Designate an additional 33.5 miles of bull trout spawning and rearing habitat as requested by the U.S. Fish & Wildlife Service, and remove reaches that are not current or potential bull trout habitat.	High administrative value because this will increase staff efficiency and access to accurate information. Staff will not have to compile information to make site-by-site determinations about where the dissolved oxygen spawning criterion applies. This will result in consistent decision making in multiple DEQ programs such as permitting, assessment, total maximum daily load, and hydropower water quality certification. It also will make DEQ decision-making more transparent with regulated entities, EPA and stakeholders. The bull trout use designations are a high priority because this was requested in a 2015 Biological Opinion.

Aquatic Life Designations – General Review and Update		
Problem	Revision Needed and Outcome	DEQ's Reason for High Priority
Aquatic life use designations have not been updated for a long time and do not reflect current information.	Review and update fish use designations based on best available current information, primarily from Oregon Dept. of Fish and Wildlife. Update and refine interior basin resident trout designations.	This project will increase staff access to accurate information, which will lead to more efficient and consistent decision making in multiple DEQ programs such as permitting, assessment, total maximum daily loads, and water quality certification. Staff will not have to correct out-of-date information on a case-by-case basis.

Natural Conditions Criteria: General and Temperature		
Problem	Revision Needed and Outcome	DEQ's Reason for High Priority
The U.S. Environmental Protection Agency disapproved Oregon's general and temperature "natural conditions" criteria – provisions that had allowed for consideration of some naturally occurring exceedances of water quality standards. Without the "natural conditions" criteria, DEQ may be required to expend resources without significant environmental benefit when the natural conditions exceed a water quality criterion. Also, in some locations the existing temperature standard is unattainable or more stringent than necessary to protect aquatic life uses.	DEQ needs a means to efficiently address situations where natural conditions protect uses or where criteria are not attainable due to natural conditions. This approach must be scientifically credible, implementable, and protect uses. Options could include a new natural conditions provision, site specific criteria, variances, or other approaches.	High value because an efficient way to address naturally occurring pollutants will allow DEQ to direct its resources to controllable pollutants. High administrative value and high urgency for permitting efficiency and effectiveness. This will allow DEQ to issue timely and protective permits. This will help with efficiency and consistent decision making in multiple DEQ programs, such as permitting, total maximum daily loads, and hydropower water quality certification.

Temperature: Variance		
Problem	Revision Needed and Outcome	DEQ's Reason for High Priority
The current temperature criteria, absent the Natural Conditions Criterion (a provision allowing for consideration of natural conditions), are not attainable in some parts of the Willamette River Basin and in other waterbodies. Limits based on the existing temperature criteria are not achievable for many permittees that discharge to these waters.	Variance(s) for Willamette River, possibly other streams of the Willamette basin, or possibly a statewide temperature variance for streams that cannot attain the numeric temperature criteria. A waterbody or multiple discharger or individual variance would need to protect existing beneficial uses and facilitate overall improvement of conditions leading to improved temperature-related water quality, while allowing DEQ to issue permits that contain achievable requirements.	High administrative value and high urgency for permitting efficiency and effectiveness. This will allow DEQ to issue timely and protective permits. High environmental value in protecting aquatic uses and improving temperature-related water quality.

Dissolved Oxygen Clarifications (Project Underway)		
Problem	Revision Needed and Outcome	DEQ's Reason for High Priority
Oregon's dissolved oxygen standard includes different water quality criteria for cold-water, cool-water, and warm-water aquatic life. There is some confusion about the definitions and associated geographic delineations for these use classifications.	Clarify the use classification definitions associated with the dissolved oxygen standard. The clarification will be consistent with DEQ's application of the criteria in the dissolved oxygen standards since 1998.	High administrative value and urgency because DEQ agreed with EPA to do these revisions before it completed its next Integrated Report. DEQ already has initiated this project, which has a completion timeline of January 2018.

Cold Water Refuge Plan for Lower Willamette River (Project Underway)		
Problem	Revision Needed and Outcome	DEQ's Reason for High Priority
Oregon's temperature standard for the "migration corridor use" reach of the lower Willamette River includes a narrative provision regarding cold water refuges. DEQ has not yet determined how to evaluate whether or not that narrative criterion is being attained.	Develop a Cold Water Refuge Plan for the lower 50 miles of the Willamette River to evaluate whether this narrative criterion is being attained. The plan will also identify existing refuges that should be protected and refuges that should be restored if additional refuges are needed to meet the criterion.	High environmental value; habitat protection or restoration for threatened or endangered salmon and steelhead. This project was a Reasonable and Prudent Alternative contained in the National Marine Fisheries Service Biological Opinion (2015) on Oregon's temperature standard. DEQ agreed to do this work and has initiated the project, which has a completion deadline of November 2018.

Table B-2: Draft Medium and Low Priority Projects

Topic	Issue or Revision Needed	Problem	Outcome/Result	Overall Priority	DEQ Reasoning for Priority
Biocriteria	Evaluate gaps in current applications and use of procedures to implement the narrative biocriteria.	Current procedures for implementing the narrative biocriteria may be built upon to cover more programs and types of water bodies. Also, there are challenges implementing standards for naturally occurring pollutants. Consider whether biocriteria could help address this issue.	Clear methods that enable DEQ to use this criterion in more of our programs; possibly as a complement to natural parameters with high variability	Medium	This would be a valuable addition to the water quality standards tools. However, the resources needed to do this work would be high and involve several DEQ programs and there is no external driver to do so at this time.
Drinking Water	Review need to develop or revise criteria to protect drinking water sources, such as turbidity, TDS, or current use pesticides (e.g. those with highest application rates in Oregon).	For some pollutants that could impact drinking source water, DEQ does not have criteria within its water quality standards, nor does EPA have federal recommendations for criteria.	Identify criteria needed to ensure protection of drinking water source waters.	Medium	Would begin to address ongoing need of criteria to protect drinking water supplies, but there is no immediate external driver.
Designated Use - Aquatic Life -Trout	Designate an additional 33.5 miles of known occupied bull trout spawning and rearing habitat; remove where U.S. Fish and Wildlife Service did not designate critical habitat and DEQ process did not identify current or potential use.	Designations do not reflect current information. USFWS requested the addition of bull trout habitat as a result of endangered species act consultation.	Update bull trout use based on new information from USFWS	Medium	The rule would have minimal impact on DEQ programs, but is driven by US Fish and Wildlife Service 2015 Biological Opinion (Biological Opinion). Because of that request, DEQ has included this project with the resident trout spawning updates project that is identified as a high priority project.
Toxics - site specific solutions	Site specific criteria or variances to address unattainable numeric toxics criteria (e.g. arsenic, phthalates).	Some permitted facilities may not be able to meet permit limits based on presence of natural background concentrations of pollutants and the high cost to remove pollutants through treatment.	Allow permits to be issued that contain permit requirements that can ultimately be achieved as well as pollutant reduction requirements.	Medium	DEQ is unaware of a broad based urgent need for variances at this time, although discussions about variances or criteria for specific locations have occurred.
Temperature	Evaluate the need for an additional temperature criterion to protect salmon and steelhead smolts in the John Day River. If needed, conduct a rule making and adopt.	The National Marine Fisheries Service (NMFS) raised concerns that current criteria may not protect the smoltification life stage because the spawning criterion does not apply in a large segment of the mainstem.	Little environmental result. The John Day River is already identified as impaired for temperature and has a TMDL.	Medium	The John Day River is listed as impaired and there is a TMDL, so the value of this rulemaking is low. It is given a medium priority only because it is required by the NMFS 2015 Biological Opinion and DEQ agreed to evaluate it.
Algae - Harmful algal blooms	Procedures to implement the narrative algal growth criterion, or revisions to the criterion, to better address harmful algae blooms.	How to address the increasing incidence of harmful algae blooms in the state to protect human health and recreation.	Clear procedures for implementing the algal growth criterion, or revisions to the criterion, to address harmful algae blooms.	Medium	This may help DEQ better address harmful algal blooms. However, DEQ can address the issue with current rules. Because there is no external requirement to do this project, and it is not impeding regulatory actions at this time, this is not urgent relative to other projects.

Algae - Nuisance algal growth	Consistent implementation of algal growth narrative criterion and chlorophyll-a action value to address nuisance algal growth or eutrophication problems.	DEQ has no procedures document. DEQ's TMDLs address pollutants causing DO, pH or chlorophyll-a exceedances, however, there may be need for better methods to assess and control nutrient loading prior to completion of a TMDL in some locations.	Better, targeted control of nutrient pollution where it may result in degradation of water quality.	Medium	This may help DEQ better address nuisance algal growth and nutrient loading. However, DEQ can partially address the issue with current rules. Because there is no external requirement to do this project, and it is not impeding regulatory actions at this time, this is not urgent relative to other projects.
Antidegradation	Clarify the antidegradation policy and implementation procedures and ensure consistency with new EPA standards regulations.	Oregon's antidegradation policy and implementation procedures have not been reviewed since EPA promulgated new federal regulations in 2015 and could be written more clearly.	Consistency of antidegradation policy with federal regulations. Clear implementation procedures.	Medium	Because EPA recently reviewed the state's antidegradation implementation plan, there would not likely be significant changes. Changes would not have a high environmental value, but clarity could help programmatic needs, especially for discharge permitting and water quality certifications.
Sediment	Suspended and bedded sediment: Build on current knowledge and practice to develop methodologies and procedures for implementing the narrative criterion.	Because DEQ has no procedures for how to apply this criterion, there has been limited implementation. This is an important variable for the protection of salmonid spawning habitats.	Improved ability to manage the impacts of sediment on threatened and endangered salmon and steelhead and other native biota.	Medium	This would provide high value but would also utilize significant resources from standards and other DEQ WQ staff. There are no external drivers or pending actions creating urgency for this project.
Three Basin Rule	Clarify conflicting or confusing 401 language.	The Three Basin Rule states new or increased waste discharges are prohibited and defines waste discharges as any discharge that requires an NPDES permit, WPCF permit, or 401 certification. Yet later in the rule, it appears to authorize issuing these certifications.	Either rule interpretation memo or rule clarification.	Medium	Evaluate whether this needs to be addressed through rule clarification or an interpretation memo.
Variance Procedures	Procedures/Internal Management Directive may need updating.	DEQ procedures may not reflect recently revised federal requirements.	Updated IMD. Clear procedures will support use of this tool where it is appropriate	Medium	DEQ developed an IMD in 2012 and has not utilized it to date. Upon completing one or a few variances, DEQ can revisit the IMD to address issues that have arisen.
Wetlands	Wetlands criteria development or guidance on application of existing criteria	The lack of wetland specific criteria or guidance regarding the application of current criteria to wetlands makes it more difficult for the water quality certification program to protect wetlands.	Improved ability to protect wetlands or identify whether wetland specific criteria are needed	Medium	EPA's recommended wetland criteria are narrative, which may not meet objective of added clarity for the program. This could require a high level of effort.
Outstanding Resource Waters (ORW)	Develop screening criteria and a list of nominated waters for ORW designation	Oregon has not yet designated any ORWs, one is being proposed for adoption in July 2017.	Special protection for outstanding waters of the state.	Medium	This project would address an ongoing need for DEQ to nominate ORWs under its antidegradation policy, but there is no external driver and it is not impeding regulatory actions. Therefore, it is not urgent relative to other projects.

Toxics - aquatic life criteria	Adopt aluminum criteria, and/or new EPA recommended aquatic life criteria for acrolein, carbaryl, diazinon and nonylphenol.	EPA has published 4 new criteria recommendations, 3 of which are for pesticides. Also, EPA is under court order to promulgate aluminum criteria for Oregon. Should DEQ do rulemaking first?	Adopt criteria for pollutants of concern without criteria in Oregon's water quality standards.	Medium	EPA is expected to publish recommended aluminum criteria in 2018, and will promulgate criteria for Oregon if DEQ does not adopt them first. This may be an acceptable outcome as the information from EPA to date indicates the criteria would be very similar whether they are adopted by EPA or DEQ. The 4 new criteria should be adopted at some time, but may not be urgent relative to other projects.
Use Attainability and Site Specific Criteria	Clear and efficient procedures for completing use attainability analysis. Review document outlining the procedures and findings for conducting a UAA and/or adopting site specific criteria	DEQ has completed one UAA and would benefit from procedures to ensure the process is clear, efficient and meets federal requirements.	Working with EPA, develop clear and efficient procedures for both DEQ and EPA to improve use of this tool where it is appropriate.	Medium	UAAs and site specific criteria can be adopted if needed without a procedures document. Because to date these have been rare, a procedures document has less value than it would for procedures applied more frequently.
Water Quality Limited Waters Rule	Review WQ-Limited Waters Rule to clarify purpose and appropriate placement in Division 41. Consider revision.	This rule pertains to water quality assessment and listings, not water quality standards. It may not be in the appropriate place in DEQ's rules.	Consider whether this rule should be revised or relocated.	Low	Not a water quality standard; pertains more to water quality assessment.
Designated Uses - public water supply, other	Drinking water use designation review. Review, revise, or remove designated uses for constructed waterways, irrigation canals, drainage ditches, estuarine waters, the Columbia Slough, alkaline lakes, Portland Harbor (area of the Willamette River), Bear Creek, others?	Designations do not reflect current uses and it may not be appropriate to use some of these waters for public domestic water supply.	Revision that removes uses where they are not appropriate and clarifies where criteria do/do not apply.	Low	The effort to do so would be high, as it would require justifications for each location and DEQ is not aware of pending actions that make this an urgent need.
pH	Revise the pH criteria for the Crooked River, Columbia R. and some coastal basins.	Some pH criteria do not reflect the basin conditions (i.e. geology, rainfall, buffering capacity, etc.) and range of normal variability in pH.	Criteria that are protective of uses in the waterbody and are reflective of basin conditions.	Low	DEQ is not aware of any urgent need for these revisions, but these could be piggybacked onto another rulemaking with relatively low effort.
Total Dissolved Solids	Review and update the total dissolved solids criteria.	How to apply the criteria is not clear. The relationship of the criteria to use protection and the variability of the criteria among basins need review.	Implementation procedures related to the "guide values" or updated criteria based on new science.	Low	DEQ programs appear to have addressed application of the criteria currently. Urgency for this project is low compared to other projects.
Turbidity	Revise turbidity criteria to ensure protection of beneficial uses (fish and wildlife and drinking water)	Current criteria are difficult to implement and are not directly connected to designated uses.	Criteria that reflect literature on impacts of turbidity on designated uses; improved ability to use turbidity criterion for CWA programs	Low	DEQ initiated efforts to revise the standard in 2009 - 2011. Lack of urgency from many DEQ staff and external stakeholders.
Turbidity	Turbidity - implementation procedures; staff training	DEQ has no procedures document to implement the existing criteria.	Improved ability to use turbidity criterion for CWA programs	Low	Low urgency, DEQ is not aware of actions being impeded by this problem and there are no external deadlines.

Waters of the State	Review definition of waters of the state in light of recent case law (ephemeral v. intermittent, hydrologic connection v. off channel, etc.) and impending changes to the federal definition.	There may not be sufficient clarity about how to delineate waters of the state and may need additional guidance. Evaluate Oregon's definition for consistency with the federal definition.	Clarity about which waters are regulated under the federal Clean Water Act and how that relates to the Oregon state definition of "waters of the state."	Low	Oregon's definition of Waters of the State (WOTS) is more inclusive than current federal definition, so there may not be much value to this, other than to ensure consistency with federal rules.
Pathogens	Determine whether new criteria are needed to protect human health from pathogens. Are current bacteria indicators insufficient? Review and evaluate analytical methods for viral pathogens.	Concern that bacteria criteria are not sufficient to protect human health from viral pathogens when recreating in waters of the state or consuming shellfish.	Improved protection from waterborne pathogens, including viruses.	Low	EPA is developing criteria for viral pathogens but has not yet published revised criteria. When EPA finalizes their criteria recommendations, DEQ will evaluate whether adopting them is a priority for the state.
Nutrients	Does Oregon need numeric nutrient criteria? If so, should Oregon establish criteria for particular waterbodies or problem areas?	Currently, DEQ has narrative criteria related to nutrients.	Evaluation of the value of numeric nutrient criteria for lakes or other waters. The value may be limited as DEQ does not permit discharges to lakes. Other criteria (narrative, chlorophyll-a, DO and pH) may be used to assess waters, control sources and initiate TMDLs.	Low	DEQ addresses nutrient pollution through other standards that more closely measure the potential impact to beneficial uses (dissolved oxygen, pH, chlorophyll a and narrative criterion. There is no large-scale nutrient issue in the state as there are in other areas (Gulf of Mexico, Chesapeake Bay, Puget Sound), so nutrients can be addressed on a waterbody basis through existing criteria and TMDLs.
Ocean acidification	Revise or adopt criteria to protect aquatic life from ocean acidification.	Current criteria may not be the best indicators of impacts to aquatic life from ocean acidification.	Better ability to assess marine water conditions for ocean acidification.	Low	While this may be useful for assessing conditions generally, it is unclear how Clean Water Act programs in Oregon would use the criteria in program implementation.
Other Implementation of Water Quality Criteria	Review rules related to treatment (e.g. OAR 340-041-0061) to clarify purpose and appropriate placement in Division 41 or consider moving to Div. 45. The treatment criteria are not WQ standards.	Inconsistency and lack of clear language in the rule have led to variation in the development for mass limits. Current language has led to confusion, variation and extensive permit delays due to public comments.	Determine whether rule revisions are needed.	Low	This problem may be addressed more effectively by the DEQ permitting program. The appropriate location of 340-041-0061 could be reviewed as part of a larger Division 41 housekeeping and corrections and clarifications rulemaking.

Appendix C – Comment Summary

Table C-1: Comments received to proposed high priority and 3 medium priority standards review/revision projects.

DEQ's High Priority Projects	Outcome	Summary Comments Received
Toxics – Human Health - Methylmercury	Methylmercury variances would allow permits to be issued that require mercury reduction but also have permit requirements that are achievable and result in overall mercury reductions.	Supports development of mercury variances but encourages revision of numeric criteria to be more attainable (OFB, et al.) Recommends against development of basin-wide or statewide mercury variance; rather emphasize nonpoint source TMDL load allocations and individual variances; revise state variance rule and procedures to comply with federal regulations (OEC). Variances should not serve as broad excuse from compliance from mercury criteria or need to address non-point sources (CTUIR). Reorder priority of standards projects to first address standards revisions that will reduce pollutants rather than fulfill priorities of permitted sector (CRK, et al.) Variances should not be only tool to address situation of permittees not meeting mercury criteria; DEQ should address non-point sources (CRITFC). Supports variance for methylmercury, but standards review does not provide the appropriate process framework; update variance rules and IMD to allow for multiple discharge variances. Recognizing variances are likely to take a significant portion of agency's time, remaining priorities should provide more protection to Oregon waters; supports aligning DEQ variance procedures and rules with EPA rules; site specific toxics solutions should be low priority but DEQ should communicate with public about site specific and variance requests received (NWEA, CRK).
Toxics – Narrative Criterion	Review and research methods and approaches to implementing Oregon's narrative toxics criterion. Revise DEQ's implementation procedures to describe the available and appropriate tools for regulating the discharge of toxic pollutants that have no numeric criteria.	Develop water quality standards for pharmaceuticals and chemical contaminants (CK). Develop rule language that requires the Land Use Board of Appeals to consider all environmental impairments, particularly concerning pharmaceuticals in drinking water, when considering exceptions to land use goals; ensure environmental justice guidelines are followed (GL). Supports developing procedures for implementing narrative toxics criteria; In

		addition, recommends adopt EPA 2015 changes to human health criteria (OEC). Supports high priority to develop procedures to implement narrative toxics criteria; in addition, DEQ should consider EPA's revised human health criteria from June 2015 (CTUIR). Recommends among highest priorities: Toxics narrative criteria implementation procedures (CRK, et al.). Supports development of procedures for implementing narrative toxics criteria (CRITFC). Recommends against development of implementation procedure for narrative toxics criterion as whole effluent toxicity testing allows for implementation of this criterion (ACWA). Supports development of implementation procedures for narrative toxics criteria as high priority (NWEA, CRK).
Fish Use Updates – Resident Trout Spawning and Bull Trout	Specify where and when resident trout spawning is a designated use with maps or a process-based designation. Designate an additional 33.5 miles of bull trout spawning and rearing habitat as requested by the U.S. Fish & Wildlife Service, and remove reaches that are not current or potential bull trout habitat.	Supports Fish Use and Aquatic Life designation updates as high priority; suggests combining (TU). Opposes DEQ time investment toward resident trout spawning designation without comprehensive review of appropriateness of criteria and designations in entire DO standard (OFB, et al.) Recommends as fifth in list if top 8 priorities: fish use and aquatic life use updates (CRK, et al.) Supports fish use updates and cold water refugia plan for lower Willamette River as high priorities (ACWA). Supports high priority for fish use and aquatic life use updates; to allow more efficient, timely information exchange, recommends rule language to allow updates to fish distribution maps without required rule change. Supports high priority for fish use and aquatic life use updates (ODFW). Recommends as third in list of 8 top priorities: Fish use updates, including where and when designations for trout spawning and bull trout (NWEA,CRK).

Aquatic Life Designations – General Review and Update	Review and update fish use designations based on best available current information, primarily from Oregon Dept. of Fish and Wildlife. Update and refine interior basin resident trout designations.	Supports Fish Use and Aquatic Life designation updates as high priority; suggests combining (TU). Supports high priority to update aquatic life use designations, particularly for Bull Run watershed (Sandy Basin) (PWB). Concerned that Essential Indigenous Salmonid Habitat maps do not include stream segments in the Siskiyou National Forest that provide steelhead and cutthroat trout habitat (FK). References 2010 petition to adopt Snake River site specific numeric criterion for fall Chinook spawning; provides for two week transition in temperature between October 23 and November (IPC). Supports high priority for fish use and aquatic life use updates; recommends rule language to allow updates to fish distribution maps without required rule change (ODFW). Recommends as fifth in list if top 8 priorities: fish use and aquatic life use updates (CRK, et al.)
Natural Conditions Criteria – General and Temperature	DEQ needs a means to efficiently address situations where natural conditions protect uses or where criteria are not attainable due to natural conditions. This approach must be scientifically credible, implementable, and protect uses. Options could include a new natural conditions provision, site specific criteria, variances, or other approaches.	Supports an approach to address Natural Conditions Criteria but must protect aquatic life uses and not resort to variances; should consider decreased salmonid temperature resiliency because of degraded habitat pressures (TU). Supports a means to address unattainable criteria because of natural conditions or where natural conditions protect uses; PWB Habitat Conservation Plan is example (PWB). Supports means to address situations where natural conditions prevent attainment of water quality standards; recommends prioritizing this approach over temporary variances (OFB, et al.). Combine projects related in some way to temperature: natural conditions criteria, temperature variance, aquatic life criteria, cold water refugia plan (FWT). Recommends against revising temperature standard for natural conditions; focus instead on issuing permits with site-specific and basin-wide compliance options (ACWA). Recommends against development of new natural conditions criteria (NWEA, CRK).

Temperature - Variance	Variance(s) for Willamette River, possibly other streams of the Willamette basin, or possibly a statewide temperature variance for streams that cannot attain the numeric temperature criteria. A waterbody or multiple discharger or individual variance would need to protect existing beneficial uses and facilitate overall improvement of conditions leading to improved temperature-related water quality, while allowing DEQ to issue permits that contain achievable requirements.	Supports development of temperature variances that protect beneficial uses, recognizing extreme atmospheric conditions and climate change may prevent attainment of numeric criteria at all times (PWB). Supports development of temperature and mercury variances but encourages revision of numeric criteria to be more attainable (OFB, et al.). Recommends against development of basin-wide or statewide temperature variance; rather emphasize nonpoint source TMDL load allocations and individual variances; revise state variance rule and procedures to comply with federal regulations (OEC). Variances should not serve as broad excuse from compliance from temperature criteria or need to address non-point sources (CTUIR). Combine projects related in some way to temperature: natural conditions criteria, temperature variance, aquatic life criteria, cold water refugia plan (FWT). Variances should not be only tool to address situation of permittees not meeting temperature criteria; DEQ should address non-point sources (CRITFC). Supports variance for temperature but standards review does not provide the appropriate process framework; update variance rules and IMD to allow for multiple discharge variances (ACWA). Objects to development of temperature variance under conditions where natural conditions are not the rationale (NWEA, CRK).
Cold Water Refugia Plan	Develop a Cold Water Refuge Plan for the lower 50 miles of the Willamette River to evaluate whether this narrative criterion is being attained. The plan will also identify existing refuges that should be protected and refuges that should be restored if additional refuges are needed to meet the criterion.	Develop rule language to protect hyporheic zones and thermal refugia (TU). Combine projects related in some way to temperature: natural conditions criteria, temperature variance, aquatic life criteria, cold water refugia plan (FWT). Recommends as seventh in list if top 8 priorities: protect thermal refugia in hyporheic zone (CRK, et al.). Supports cold water refugia plan for lower Willamette River as high priority (ACWA).

		Make it a high priority to define and quantify hyporheic connections and flows for assessment and restoration (MCWC). Recommends high priority for additional protections for thermal refugia in hyporheic areas. (NWEA, CRK)
Dissolved Oxygen Clarifications	Clarify the use classification definitions associated with the dissolved oxygen standard. The clarification will be consistent with DEQ's application of the criteria in the dissolved oxygen standards since 1998.	Opposes DEQ time investment toward clarification of warm, cool and cold water habitat in dissolved oxygen standard without comprehensive review of appropriateness of criteria and designations in entire DO standard (OFB, et al).
DEQ Medium Priority Examples	Outcome	Summary Comments Received
Outstanding Resource Waters	Develop screening criteria and a list of nominated waters for ORW designation	Study Rough and Ready Creek and Whiskey Creek (W. Fork Illinois R.) for designation at Outstanding Resource Waters (GL). Make development of Outstanding Resource Water criteria and list a high priority; propose Elk R. u/s Anvil Creek for ORW (TU). Prioritize study of Rough and Ready Creek and Whiskey Creek for Outstanding Resource Water designation (GBZ). Prioritize designation of the following as Outstanding Resource Waters: Rough and Ready Creek; and Illinois River, Chetco River and Elk River and their direct tributaries and associated wetlands on National Forest land (FK). Make designation of Outstanding Resource Waters a low priority; and agency should not accept petitions until screening criteria are in place (OFB, et al.). Recommends against designation of Outstanding Resource Waters when no additional protection results (NWEA, CRK).
Sediment – Narrative Criterion	Suspended and bedded sediment: Build on current knowledge and practice to develop methodologies and procedures for implementing the narrative criterion. Improved ability to manage the impacts of sediment on threatened and endangered salmon and steelhead and other native biota.	Make development of procedures to implement sediment narrative criteria a high priority (OEC). Recommends revising standards for interrelated parameters as a group, for example all parameters related to sedimentation and nutrients (FWT). Recommends second in list if top 8 priorities: sediment narrative procedures (CRK, et al.). Recommends against developing sediment criteria, but rather analyze how not having criteria affects CWA

		programs (ACWA). Recommends developing protocol to measure sediment impairment based on intensity, timing, and duration of increased turbidity events (MCWC). Recommends higher priority for expansion of implementation methods for sediment narrative criteria if in concert with increased regulation of nonpoint sources (NWEA, CRK).
John Day Temperature	Evaluate the need for an additional temperature criterion to protect salmon and steelhead smolts in the John Day River. If needed, conduct a rule making and adopt.	Recommends eighth in list if top 8 priorities: John Day smoltification criteria (CRK, et al.). Recommends fourth in list if top 8 priorities: John Day smoltification criteria (NWEA, CRK).

Notes: ACWA – Oregon Association of Clean Water Agencies; CK – Cyndi Karp; CRITFC – Columbia River Intertribal Fish Commission; CRK – Columbia Riverkeeper; CTUIR – Confederated Tribes of the Umatilla; FK – Friends of the Kalmiopsis; FWT – Freshwater Trust; GBZ – Gloria and Bob Ziller; GL – Gordon Lyford; IPC – Idaho Power Company; MCWC – Midcoast Watershed Council; NWEA – Northwest Environmental Advocates; ODFW – Oregon Dept. of Fish and Wildlife; OEC – Oregon Environmental Council; OFB – Oregon Farm Bureau; PWB – Portland Water Bureau; TU – Trout Unlimited.

Table C-2: Summary of Comments from Public Review and Public Meetings

Commenter	Summary of Comments
Cyndi Karp	Develop water quality standards for pharmaceuticals and chemical contaminants; require that incoming drinking water and outgoing wastewater be tested daily for same.
Gordon Lyford	Study Rough and Ready Creek and Whiskey Creek (W. Fork Illinois R.) for designation at Outstanding Resource Waters.
Robert Ray	Develop rule language that requires the Land Use Board of Appeals to consider all environmental impairments, particularly concerning pharmaceuticals in drinking water, when considering exceptions to land use goals; ensure environmental justice guidelines are followed.
Trout Unlimited	Supports Fish Use and Aquatic Life designation updates as high priority; suggests combining. Make development of Outstanding Resource Water criteria and list a high priority; propose Elk R. u/s Anvil Creek for ORW. Make development of antidegradation implementation procedures a high priority. Supports DEQ developing an approach to address EPA disapproval of Natural Conditions Criteria but cautions that approach must first protect aquatic life uses as opposed to restoring to variances; should consider decreased salmonid temperature resiliency because of degraded habitat pressures. Develop rule language to protect hyporheic zones and thermal refugia. Remove Dissolved Oxygen Clarifications from list since work will be completed by January 2018.
Northwest Hydroelectric Association	Review the state Total Dissolved Gas criteria, the state of TDG science, and how NHA could partner with DEQ to inform the review.
Jody McCaffree	Develop requirements for testing and protection of surface water from biosolids application sites and developments adding load to septic systems; particular concern in Coos Bay Estuary and Coastal Zone.
U.S. EPA Region 10	Review new water quality standards regulations at 40 CFR 131, published in the Federal Register (80 Fed. Reg. 51020, Aug. 21, 2015) for new/revised requirements and update any of Oregon's water quality standards regulations that are inconsistent with these revised federal regulations. Ensure water quality standards include up-to-date water quality criteria, are based on sound science, and are protective of designated uses; compare Oregon's criteria with EPA's current 304(a) recommendations and if DEQ chooses not to update criteria to be consistent with current 304(a) national criteria recommendations, explain that decision in triennial review report to EPA. Prioritize triennial review projects also identified in the "Water Quality Program, Element 1: Water Quality Standards and Assessments" Section of the PPA/PPG.
Gloria and Bob Ziller	Prioritize study of Rough and Ready Creek and Whiskey Creek for Outstanding Resource Water designation
Portland Water Bureau	Supports high priority to update aquatic life use designations, particularly for Bull Run watershed (Sandy Basin), referencing information sent to DEQ and ODFW in August 29, 2015 letter. Supports high priority to develop means to address situations where criteria are not attainable because of natural conditions or where natural conditions protect uses; references PWB Habitat Conservation Plan as example approach. Supports as high priority development of temperature variances that protect beneficial uses, recognizing extreme atmospheric conditions and climate change may prevent attainment of numeric criteria at all times.
Friends of the Kalmiopsis	Prioritize designation of the following as Outstanding Resource Waters: Rough and Ready Creek; and Illinois River, Chetco River and Elk River and their direct tributaries and associated wetlands on National Forest land. Relating to priority to update aquatic life use designations, raise concern that Essential Indigenous Salmonid Habitat maps do not include stream segments in the Siskiyou National Forest that provide steelhead and cutthroat trout habitat.
Oregon Farm Bureau, et al.	Supports priority to develop means to address situations where natural conditions prevent attainment of water quality standards; recommends prioritizing this approach over development of temporary variances. Encourages development of new use designation as "naturally water quality limited" via Use Attainability Analysis or following EPA's Natural Conditions Framework for site specific criteria.

	Opposes DEQ time investment toward resident trout spawning designation and clarification of warm, cool and cold water habitat in dissolved oxygen standard without comprehensive review of appropriateness of criteria and designations in entire DO standard. Supports development of temperature and mercury variances but encourages revision of numeric criteria to be more attainable. Make designation of Outstand Resource Waters a low priority; and agency should not accept petitions until screening criteria are in place. Recommends revising Oregon "waters of the state" definition to acknowledge differences in application to point and non-point source pollution programs; should not develop wetland criteria or guidance until this distinction is clear. Recommends against developing specific criteria for drinking water sources as existing criteria protect most sensitive beneficial uses.
Oregon Environmental Council	Recommends against development of basin-wide or statewide temperature and mercury variances, but rather emphasize enforcement of nonpoint source TMDL load allocations and individual variances that encourage permittees to improve and innovate. Before developing variances, revise state variance rule and procedures to comply with federal regulations and address nonpoint pollution sources. Supports high priority for developing procedures for implementing narrative toxics criteria; adopt EPA 2015 changes to human health criteria; adopt aquatic life criteria per EPA recommendations, particularly nonylphenol. Make development of procedures to implement sediment narrative criteria a high priority. Recommend higher priority for development of numeric nutrient criteria as nonpoint source pollution prevention tool.
Confederated Tribes of the Umatilla Indian Reservation	Views water quality standards review as opportunity to refine regulations and standards to reduce pollution and toxic discharges. Variances should not serve as broad excuse from compliance from temperature and mercury criteria or need to address non-point sources. Narrative criteria may be insufficient to address algae blooms and numeric nutrient criteria should be considered along with developing implementation procedures. Supports priority list submitted in comments from Columbia Riverkeeper, et al. Supports high priority to develop procedures to implement narrative toxics criteria; should consider EPA's revised human health criteria from June 2015.
The Freshwater Trust	Before revising standards, recommends scoping pollutant sources and management actions that will reduce pollutants in a watershed. Recommends revising standards for interrelated parameters as a group, for example all parameters related to sedimentation and nutrients. Combine projects related in some way to temperature: natural conditions criteria, temperature variance, aquatic life criteria, cold water refugia plan.
Columbia Riverkeeper, et al.	Reorder priority of standards projects to first address standards revisions that will reduce pollutants rather than fulfill priorities of permitted sector. Recommends as highest priorities: • Toxics narrative criteria implementation procedures • Sediment narrative procedures • New CWA 304(a) recommended criteria: Acrolein, Carbaryl, Diazinon, and Nonylphenol • Wetlands protections • Fish use and aquatic life designation updates • Antidegradation implementation methods • Protect thermal refugia in hyporheic zone • John Day smoltification criterion

	For next Triennial Review, suggest nutrient criteria, nuisance algal growth criteria, and ocean acidification as top priorities. Recommend expanding terminology use of "external driver" to include ESA listings. Recommend applying Tier I antidegradation to wetland protections; consider aquatic life designated use in 401 Water Quality certifications.
Center for Biological Diversity	Move update of ocean acidification criteria to high priority; current pH criteria range for marine and estuarine waters not protective of marine organisms. Reference comments submitted to DEQ pertaining to 303(d) list in April 2017.
Columbia River Inter-Tribal Fish Commission	Variances should not be only tool to address situation of permittees not meeting temperature or mercury criteria; DEQ should address non-point sources. Establish numeric criteria for algal growth and nutrients. Supports development of procedures for implementing narrative toxics criteria.
Oregon Association of Clean Water Agencies	Supports variance for methylmercury and temperature as high priorities but cautions that standards review does not provide the appropriate process framework; update variance rules and IMD to allow for multiple discharge variances. Supports fish use updates and cold water refugia plan for lower Willamette River as high priorities. Supports update of antidegradation policy to reflect EPA rules; supports medium priority for development of procedures related to narrative algal blooms and algal growth criterion; supports development of wetland criteria. Recommends making development of toxics site specific solutions a high priority. Recommends making review of designated uses a higher priority. Supports improving procedures for use attainability analysis and site specific criteria; supports completing turbidity criteria updates initiated several years ago; supports Three Basin Rule clarification as medium priority; supports review of criteria related to pathogens as a low priority but add second element to evaluate E. coli distribution among wild animals, domestic pets, etc. Recommends against development of implementation procedure for narrative toxics criterion as whole effluent toxicity testing allows for implementation of this criterion. Recommends against revising temperature standard to allow for site-specific, natural conditions; recommends against development of criteria particular to drinking water sources; Recommends against developing sediment criteria, but rather analyze how not having criteria affects CWA programs. Recommends against adoption of aluminum criteria until DEQ evaluates naturally occurring aluminum concentrations and allows for site specific conditions.
Idaho Power Company	References 2010 petition to adopt Snake River site specific numeric criterion for fall Chinook spawning (340-041-0028(4)(a)) and EQC recommendation to request under next Triennial Review; provides for two week transition in temperature between October 23 and November 6.
MidCoast Watershed Council	Recommends additional data collection and biocriteria analysis to distinguish natural variation from impairment; Recommends developing protocol to measure sediment impairment based on intensity, timing, and duration of increased turbidity events. Recommend applying Tier I antidegradation to wetland protections; consider aquatic life designated use in 401 Water Quality certifications. Make it a high priority to define and quantify hyporheic connections and flows for assessment and restoration.
Portland General Electric	Recommends reviewing Total Dissolved Gas criteria in light of Columbia and Snake R. data and national and regional studies on TDG impacts.

Oregon Dept. Fish and Wildlife	Supports high priority for fish use and aquatic life use updates; to allow more efficient, timely information exchange, recommends rule language to allow updates to fish distribution maps without required rule change.
Northwest Environmental Advocates	Recognizing variances are likely to take a significant portion of agency's time, remaining priorities should provide more protection to Oregon waters, with recommended highest priorities as follows: • antidegradation implementation methods • narrative criteria (including but not limited to toxics) implementation methods • fish use updates, including where and when designations for trout spawning and bull trout • John Day smoltification criterion • sediment narrative procedures • new 304(a) recommended criteria: acrolein, carbaryl, diazinon, and nonylphenol • wetlands protections • thermal refugia protection For next Triennial Review, suggest nutrient criteria, nuisance algal growth criteria, and ocean acidification as top priorities, with preparatory work done during the current triennial review; urged adoption of numeric nutrient criteria. Supports development of implementation procedures for narrative toxics criteria as high priority. Urges adoption of PA approach to update aquatic life designation via use of Tier I antidegradation policy; also recommends use of Tier I antidegradation policy and aquatic life designation to protect wetlands, rather than new criteria. Recommends high priority for revising antidegradation implementation methods to respond to EPA 2013 review and clarify protections for all waters – including those affected by nonpoint pollution sources; emphasize public process. Recommends higher priority for expansion of implementation methods for sediment narrative criteria if in concert with increased regulation of nonpoint sources. Supports aligning DEQ variance procedures to EPA rules but also recommends rule revision. Recommends high priority for addressing ocean acidification caused by soil disturbance and forestry practices. Recommends high priority for additional protections for thermal refugia in hyporheic areas. Objects to development of temperature variance under conditions where natural conditions are not the rationale. Recommends against development of new natural conditions criteria. Recommends low priority for broadening application of biocriteria. Recommends DEQ protect drinking water sources with existing, rather than new, standards – designated uses, narrative criteria, antidegradation policy. Recommends allowing EPA adoption of aluminum criteria; adoption of 304(a) criteria this or next triennial review. Site specific toxics solutions should be low priority but DEQ should communicate with public about site specific and variance requests received; recommends low priority for use attainability and site specific criteria procedures. Comment that lack of implementation procedures around nuisance algal growth the algal blooms impairs DEQ regulatory abilities. Recommends against designation of Outstanding Resource Waters when no additional protection results. Agrees with low priority for reviewing/revising/removing designated uses for certain waterways and revising pH for certain waterways. Recommends against any revisions that weaken Oregon waters of the state definition.

Comments/questions received verbally at public meetings	Is this standards review process related to the benchmarks ins 1200Z permits going down? Could a permitted entity use a variance to delay installation of treatment methods? Could a variance apply to stormwater? What will happen when DEQ decides which standards projects they will work on? How would drinking water standards be affected if DEQ set in-stream standards for drinking water sources? How is DEQ responding to emerging toxins? How is temperature variance different from natural conditions criteria? Does DEQ or the permittee conduct monitoring for a variance? What level of protection does Outstanding Resource Water provide? Why is adopting pathogens criteria a low priority? City Gresham finds stormwater treatment designed for E. coli may not be as effective for metals. Studies show E. coli not good indicator of human health risk. How does nutrient criteria project relate to HABs response? Is a variance just for one facility? Does this standards review have implications for how water body impairment is assessed? Are there criteria for determining impairment from HABs? When does DEQ develop numeric vs. narrative standards?
Questions Tribal Government Webinar	Why would 220 ft. buffer not be good enough for temperature standard? (i.e. having BMPs in place)? Where do fecal coliform and enterococcus criteria apply and who is collecting fecal coliform data on the south coast? How many stream miles have a designated use? What uses apply to certain waters and how might we comment on expanding those?