

**Date:** Sept. 17, 2021

**To:** Environmental Quality Commission

**From:** Richard Whitman, Director

**Subject:** Item C: Water Quality Standards Triennial Review Report and 2021-2024 Workplan (Informational)  
Sept. 30-Oct. 1, 2021, EQC meeting

**Why this is important** DEQ will inform the commission about the water quality standards Triennial Review and Workplan for July 2021 through June 2024.

**Prior EQC involvement** DEQ provided a Director's Report item about the water quality standards Triennial Review for the March 25-26, 2021, EQC meeting.

**Background** DEQ recently completed a Triennial Review of the state's water quality standards, as required by the federal Clean Water Act. During the review, DEQ invited the public to comment on water quality standards DEQ should review, revise or adopt over the next three years.

The purpose of the Triennial Review process is to periodically review and update Oregon's water quality standards to ensure they are based on the best available science and protect the designated beneficial uses of state waters. In addition, DEQ may revise standards to improve clarity, consistency or certainty in how the standards are applied in water quality programs.

The result of the Triennial Review is a workplan of high-priority projects the water quality standards program plans to complete or initiate from July 2021 through June 2024. These projects include rulemakings to revise current standards or adopt new standards and projects to develop procedures or internal management directives for DEQ staff.

**Process and Workplan** DEQ's triennial review process, which included the following steps, is described in detail in the Triennial Review Report, included as Attachment A to this staff report:

1. The water quality standards program developed a draft project inventory of needed standards work and rated each project as a high, medium or low priority. DEQ rated the projects based on the value, urgency, level of effort and risk to success.

2. The draft project inventory and priorities were reviewed by DEQ staff from all water quality programs and revised based on the internal comments.
3. DEQ solicited public comment on the draft project inventory and priorities.
4. After considering public comment, DEQ developed the Workplan.
5. The final Triennial Review Report and 2021–2024 Workplan were submitted to EPA on July 26, 2021.

#### Public review and comment

DEQ conducted a 45-day external review and public comment period, as described in the outreach section of the Triennial Review Report. DEQ held an informational public meeting and a public hearing during the comment period. In addition, DEQ gave presentations to the Water Quality Stakeholder Roundtable and to the State-Tribal Government to Government Natural Resources Work Group.

DEQ received public comments from one individual and representatives of 21 organizations. Details of public comments and DEQ’s responses are included in Section 3 of the Triennial Review Report, and summarized in the Key Issues section of this staff report.

DEQ received multiple comments supporting all or most of the draft high-priority projects, with commenters agreeing that the work would provide high administrative or environmental value. In some instances, DEQ received comments supporting a project as a high priority and other comments expressing concerns about the same project, or suggesting it should be a lower priority.

#### 2021-2024 Workplan

The Triennial Review Workplan includes a set of projects, listed below, that DEQ plans to complete or initiate from July 2021 through June 2024.

Information on the scope and expected outcome of each project and the reason it is a priority are provided in the Triennial Review Report. In addition, DEQ estimated the amount of time each project will take and which projects could be conducted concurrently to lay out an estimated schedule, shown in Appendix A of the Triennial Review Report.

#### **High-priority projects proposed to be completed or initiated from July 2021 to June 2024:**

1. Complete the rulemaking to update aquatic life use subcategory designations for temperature.

2. Complete the rulemaking to designated aquatic life use subcategories for dissolved oxygen.
3. Complete variance implementation procedures.
4. Complete case studies and other preparations for temperature variances and respond to any variance applications.
5. Conduct rulemaking to adopt new aquatic life criteria for toxic pollutants including acrolein, carbaryl, diazinon, nonylphenol and potentially aluminum and cadmium, and revise the criteria for selenium.
6. Develop procedures to apply the toxics narrative criterion in the assessment, permitting, and other water quality programs.
7. Develop procedures to apply the biological narrative criterion in the assessment, permitting, and other water quality programs.
8. Develop procedures to apply the algal growth narrative criterion and chlorophyll-a action value in the assessment, permitting, and other water quality programs. Together with numeric pH and dissolved oxygen criteria, these procedures will provide the tools needed to prevent or remedy excessive aquatic plant and nuisance phytoplankton growth caused by nutrient loading. This project may recommend developing numeric nutrient criteria for priority waterbodies.
9. Develop procedures to apply the sedimentation narrative criterion in the assessment, permitting, and other water quality protection programs.

**Additional projects included in the 2021-2024 Workplan:**

10. Assist the assessment program with a methodology to assess ocean acidification and marine dissolved oxygen conditions using current criteria and begin background research to identify whether there are gaps in the water quality criteria needed to protect beneficial uses of marine waters.
11. Revise the pH criteria for the Crooked River to reflect a more appropriate range based on the geology of the watershed.
12. Update the antidegradation implementation procedures, as time allows.
13. Compare EPA's recommended human health criteria and DEQ's human health criteria to evaluate whether to update Oregon's human health toxics criteria during the next Triennial Review, as time allows.
14. Correct designated uses for certain constructed waterways, such as irrigation canals and drainage ditches, as time allows and where data are provided to DEQ demonstrating that the proposed use changes are correct and appropriate.

**Key issues**

**Project focus on value-added work**

For this triennial review, DEQ focused on projects that will provide added value for Oregon waters and DEQ's water quality program implementation, particularly

the implementation of narrative criteria. There are currently no court orders or EPA disapproval actions that require DEQ action in response. For this reason, the workplan focuses on projects that have been long standing needs, but have not been addressed due to other obligations and limited staff. The standards program looks forward to working with stakeholders and EPA to make progress in these areas, including toxics, nutrients and sedimentation.

#### **Timeline and resource considerations**

The 2021–2024 Workplan is ambitious and there are uncertainties regarding how much the program will be able to complete over the next three years. Therefore, some of the added projects are included “as time allows,” and will be initiated after higher priority projects are completed or well underway. In addition, there are unforeseeable factors, which could include variance requests or rulemaking petitions, which could alter the workplan. DEQ expects that some projects will be initiated but not completed prior to June 2024 and will carry over into the following three year period.

#### **Development and use of variances**

Some commenters suggested that DEQ not work on variances because they do not view variances as providing an environmental benefit. Variances are a Clean Water Act tool that will allow DEQ to issue permits where it is not feasible for a discharger to meet one of the water quality criteria. The variance requires the discharger to reduce the pollutant and make progress toward meeting the standard. Using variances, where appropriate, will enable DEQ to issue timely renewed permits that improve treatment, reduce pollutant discharges and make progress toward reducing the permitting backlog with permit conditions that result in environmental protection.

#### **Algal growth, sedimentation**

Commenters had differing views about developing application methods for the algal growth and sedimentation narrative criteria. Many commenters agreed that these projects would yield high environmental benefit, while others suggested these projects should be a lower priority. Some commenters requested that DEQ consider natural conditions and variability, and work with stakeholders when developing the application procedures. DEQ understands that “one size fits all” numeric criteria are not appropriate for parameters like nutrients and sediment that are naturally present in healthy aquatic ecosystems, and that the application methods need to account for natural conditions and variability while protecting native aquatic life.

#### **Prioritization discrepancies**

Some commenters suggested that certain projects DEQ rated as medium priorities should be a higher priority, including projects related to ocean

acidification, marine dissolved oxygen, human health toxics, designated uses for constructed waterways (e.g. canals and ditches), pH criteria for the Crooked River, and antidegradation implementation. As a result of the public comment, DEQ added several projects to the workplan, as shown in the section above (projects 10-14).

DEQ will involve the public and engage with stakeholders during each of the water quality standards rulemaking projects. In addition, DEQ will solicit assistance and advice from science experts relevant to the project to provide scientific peer review as needed.

**EQC involvement** There is no EQC action associated with this informational item. Two rulemaking projects are expected to be proposed for EQC action during this timeframe. In addition, DEQ will update the commission when the program initiates or completes a project of interest.

**Attachment** A. [Water Quality Standards Triennial Review Report and 2021-2024 Workplan](#), July 2021.

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# Water Quality Standards

## Triennial Review Report and 2021–2024 Work Plan

July 2021



### Water Quality Standards

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# Executive Summary

The Clean Water Act requires states to review their water quality standards and hold a public hearing at least once every three years. The purpose of this report is to document DEQ's 2021 Triennial Review process, including a summary of public comment, and to provide a workplan of priority projects that the water quality standards program plans to complete or initiate during 2021 – 2024.

DEQ conducted the last water quality standards triennial review in 2017. Water quality standards work completed since 2017 includes: 1) the development and adoption of a methylmercury multi-discharger variance, 2) completion of the Lower Willamette cold water refuge plan, 3) rulemaking to designate Crater and Waldo Lakes as Outstanding Resource Waters, 4) an evaluation of whether to revise the temperature standard, and 5) an evaluation of new and revised aquatic life 304(a) criteria. Additional projects were initiated that will be completed in 2021 or 2022, including: 1) fish and aquatic life use updates, 2) aquatic life definition clarifications, and 3) variance procedures and preparation for expected temperature variances.

For this triennial review, DEQ's water program staff identified 30 water quality standards projects and rated them as high, medium, or low priority based on the project's value, urgency, level of effort, and risk to project success. DEQ held an informational meeting and a public hearing, and accepted public comment for 45 days. A final water quality standards workplan for projects to be initiated or completed during 2021 - 2024 was generated based on the priority ratings, water quality standards resources and staff and public comment.

The water quality standards projects that will be completed or initiated during the next three years include two projects already underway: aquatic life use subcategory updates for temperature and dissolved oxygen, and preparation for expected variance requests, including the development of variance procedures. Several of the projects rated among the highest priority for this triennial review period involve developing procedures to apply existing narrative criteria (i.e. toxics, biocriteria, algal growth, and sedimentation). The procedures will help DEQ use the standards to assess waterbodies and to protect designated uses by developing permit requirements and water quality improvement plans (i.e. TMDLs). DEQ will also adopt and update numeric aquatic life criteria for several toxic pollutants and will work on a method, in collaboration between the water quality standards and water quality assessment programs, to assess ocean conditions related to acidification and dissolved oxygen using existing criteria, including narrative criteria. These highest priority projects will be preferentially initiated or completed during 2021 – 2024. The final workplan also includes several medium priority projects based on public comment. These projects may be worked on as time allows and will help DEQ prepare for the next triennial review or will assist with water quality program work. For more details on project descriptions and the workplan, please refer to Section 4 and Appendix A.

## **High Priority Projects proposed to be completed or initiated from July 2021 to June 2024 include:**

1. Complete the rulemaking to update aquatic life use subcategory designations for temperature.
2. Complete the rulemaking to designated aquatic life use subcategories for dissolved oxygen.
3. Complete variance implementation procedures.
4. Complete case studies and other preparations for temperature variances and respond to any variance applications.
5. Conduct rulemaking to adopt aquatic life criteria for toxics including acrolein, carbaryl, diazinon, nonylphenol and potentially aluminum and cadmium, and revise the criteria for selenium.
6. Develop procedures to apply the toxics narrative criterion in the assessment, permitting, and other water quality protection programs.

7. Develop procedures to apply the biological narrative criterion in the assessment, permitting, and other water quality protection programs.
8. Develop procedures to apply the algal growth narrative criterion and chlorophyll-a action value in the assessment, permitting, and other water quality protection programs. Together with numeric pH and dissolved oxygen criteria, these procedures will provide the tools needed to prevent or remedy excessive aquatic plant and nuisance phytoplankton growth caused by nutrient loading. This project may recommend developing numeric nutrient criteria for priority waterbodies.
9. Develop procedures to apply the sedimentation narrative criterion in the assessment, permitting, and other water quality protection programs.

**Additional projects included in the 2021-2024 workplan:**

10. Assist the assessment program with a methodology to assess ocean acidification and marine dissolved oxygen conditions using current criteria and begin background research to identify whether there are gaps in the water quality criteria needed to protect beneficial uses of marine waters.
11. Revise the pH criteria for the Crooked River.
12. Update the antidegradation implementation procedures, as time allows.
13. Compare EPA's recommended human health criteria and DEQ's human health criteria to evaluate whether to update Oregon's human health toxics criteria during the next Triennial Review, as time allows.
14. Correct designated uses for certain constructed waterways, such as irrigation canals and drainage ditches, as time allows and where data are provided to DEQ demonstrating that the proposed use changes are correct and appropriate.

# 1. Background

The federal Clean Water Act requires states to hold a public hearing and review their water quality standards at least every three years. The purpose of this triennial review is to ensure that water quality standards incorporate new scientific information and protect beneficial uses. DEQ's Triennial Review process does not result in revised standards, but instead identifies the priority projects that the water quality standards program will complete or initiate during the next three years. Projects may include revising standards through rulemaking or developing procedures in order to incorporate new scientific information, meet federal requirements, clarify the standards or improve the application of standards in water quality programs.

DEQ conducted the last Triennial Review in 2017. Water quality standards work completed since 2017 includes: 1) the development and adoption of a methylmercury multi-discharger variance, 2) completion of the Lower Willamette cold water refuge plan, 3) rulemaking to designate Crater and Waldo Lakes as Outstanding Resource Waters, 4) an evaluation of whether to revise the temperature standard, and 5) an evaluation of new and revised aquatic life 304(a) criteria. Additional projects were initiated and will be completed in 2021 or 2022, including: 1) fish and aquatic life use updates, 2) aquatic life definition clarifications, and 3) variance procedures and preparation for expected temperature variances.

The purpose of this report is to document DEQ's 2021 Triennial Review process and to provide a workplan of priority projects that the water quality standards program will complete or initiate between July 2021 and June 2024. This report outlines the internal and external review process undertaken by DEQ and provides a summary of public comment and DEQ's response. DEQ considered both internal DEQ comment as well as external public comment when finalizing the workplan. The 2021-2024 workplan reflects the current available staff capacity in the water quality standards program. DEQ plans to provide the 2021-2024 Triennial Review Report and Workplan to EPA by July 2021 and to present the workplan to the Environmental Quality Commission in September 2021.

## 2. Review Process

DEQ's triennial review process included the following steps, which are described further below. First, DEQ identified and rated a preliminary list of water quality standards work needs. DEQ considered several factors when assigning preliminary priorities of high, medium or low to potential standards review and revision projects, which are explained in more detail in Section 2.3. The rated projects were reviewed internally by DEQ water quality staff and then externally by members of the public. The description of the draft rated priority projects released for public comment can be found in Appendix D (Tables D-1 and D-2). Comments were considered in determining the final workplan for 2021 – 2024.

### 2.1 Internal Review

DEQ's water quality standards program staff compiled descriptions of potential standards review projects and requested review and comment from all water quality program staff in February 2021 (Figure 1). Standards program staff also arranged webinars, staff meeting presentations, and internal informational meetings for discussion. DEQ staff submitted many thoughtful and helpful comments on the draft list of projects and contributed ideas for additional standards review and revision work. Comments received from DEQ staff identified some projects as high priority because they would provide enhanced water quality protection. Many comments supported projects that would help staff perform work more effectively and efficiently, such as projects that developed or clarified procedures, explained how water quality standards should be implemented, or incorporated updated scientific information into the standards. Based on this input, standards program staff added several projects to the list and also adjusted priority rankings of the project list for external review.

### 2.2 External Review

DEQ conducted an external review and public comment period from April 7 to May 24, 2021. DEQ sent an e-mail pre-notification of the informational meeting, the public hearing, and the public comment period on March 15, 2021 to over 5,800 GovDelivery subscribers. DEQ sent letters to tribal leadership and tribal natural resource staff notifying them of the Triennial Review process on March 16, 2021 and offered to meet with them to discuss the review. DEQ issued a public notice on April 7, announcing the opening of the comment period and the times and access information for two Zoom meetings: one informational meeting and one public hearing. 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 at this time. DEQ sent an e-mail reminder of the public hearing and the public comment period closing date via GovDelivery on April 27, 2021. DEQ accepted comments from the public at the public hearing and via postal mail, fax, e-mail, and an online comment submission form on the external website.

DEQ held the public informational meeting in the evening on April 21, 2021, and the public hearing during business hours on May 4, 2021. Both the informational meeting and the public hearing were held virtually in the interest of public health due to pandemic social-distancing policies and procedures. During the public hearing, DEQ experienced technical difficulties, and several DEQ employees lost connection with the meeting. No public comment was offered during the meeting. On May 5, DEQ sent an email to all hearing attendees offering to schedule another opportunity to provide verbal testimony. No requests for a rescheduled hearing were received.



**Figure 1. 2021 Triennial Review timeline.**

## 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. Priority ratings were established by considering the value, urgency, level of effort and risk to project success for each project. The purpose of this rating system was to evaluate which projects were the highest priority to complete in the near term, i.e. in 2021 to 2024, relative to each other. Value was defined as either administrative (i.e. improved efficiency or consistency in implementing a standard) or environmental (i.e. the water quality benefit for human health or aquatic life that would result). Urgency was rated by considering external requirements with inflexible deadlines, whether water quality work is being impeded, whether work is already in progress and on a schedule, or whether there was a legislative directive or budget dedicated for that work. For example, tasks that are required by a court order or to respond to a prior standards disapproval by EPA, or a task that responds to an Endangered Species Act Biological Opinion are external requirements with a deadline that would lead DEQ to rate them as having high urgency. Another example is that the legislature provided DEQ a position in the standards program specifically to do variance and Use Attainability Analysis types of work. Level of effort was rated by the level of staff resource required to complete the project, whether guidance or precedence is available, the scope of the project, anticipated stakeholder interest, and whether the change would require multiple agency approvals. Risk to project success considered the level of DEQ or EPA experience, availability of data and information, level of controversy expected, or a large or unknown resource commitment needed. All of these considerations were taken together to produce an overall priority rating of high, medium or low for each project.

### 3. Summary and Response to Public Comments

DEQ received public comments from one individual and representatives of 21 organizations (Table 1). For a summary of public comments pertaining to project scope, description, and priority, and DEQ’s responses to those comments, see Appendix B. Additional comments that relate to how the project should be conducted or that provide information to consider when the project is underway are included in Appendix C of this report. The objective of this report is to identify which projects DEQ will complete or initiate during 2021 through 2024. This section briefly summarizes the main themes of the public comments received.

Oregon Association of Clean Water Agencies	Middle Fork Irrigation District
Center for Biological Diversity	Northwest Environmental Defense Center
Confederated Tribes of the Umatilla Indian Reservation	Northwest Environmental Advocates
Columbia Riverkeeper	Northwest Pulp & Paper Association
Columbia River Inter-Tribal Fish Commission	Oregon Department of Fish and Wildlife
Doris Cellarius (Individual)	Oregon Farm Bureau
Department of Land Conservation and Development	Oregon Forest & Industries Council
Deschutes River Alliance	Oregonians for Food & Shelter
U.S. Environmental Protection Agency, Region 10	Oregon Water Resources Congress
Eagle Point Irrigation District	City of Portland Bureau of Environmental Services
Grazing Reform Project;	Portland Water Bureau

DEQ received multiple comments supporting all or most of the draft high priority projects, with many commenters agreeing the work would provide high administrative or environmental value, or both. In some instances, DEQ received comments supporting a particular project as a high priority and others recommending against DEQ expending resources in that area. While variance work received support from some commenters, several commenters opposed DEQ’s variance work, viewing broadly applied variances as insufficient tools for environmental protection. Some commenters were concerned about the methods that DEQ may use to interpret and apply narrative water quality standards that are currently in place although these projects received support from many other commenters. Some medium priority projects received support suggesting they should be a higher priority, including ocean acidification, marine dissolved oxygen, human health toxics, designated use updates for constructed waterways (e.g. canals), pH update for the Crooked River, and the antidegradation internal guidance update. A few commenters suggested two new projects including revising the mixing zone rules, and implementing the Columbia River temperature TMDL, but these projects are outside the scope of water quality standards work.

# 4. Standard Revision Projects

## 4.1 Water Quality Standards Review Workplan

The Triennial Review Workplan includes the set of projects DEQ plans to complete or initiate from July 2021 through June 2024, and an estimated schedule for the initiation and completion of those projects. Information on the expected scope and outcome of each project and the reason it is a priority to complete or initiate during this time period is provided in Table 1. DEQ estimated the amount of time each project would take and which projects could be conducted concurrently to lay out the estimated schedule shown in Appendix A.

The projects in the 2021-2024 workplan were selected based on their priority rating, the need for the project, the available staff resource, and public comment. The projects represent a balance between those requiring a large time and effort investment (i.e. a rulemaking), and those that require fewer resources but would result in benefits to water quality protection or program work. Most of the projects on the list were originally rated as high priority; these will be most prioritized during the 2021-2024 period. Other projects initially ranked as medium priorities have been included in the Workplan in response to public comment and because DEQ agrees they would provide value. However, some of these projects will be or initiated as time allows if there is sufficient staff resource available.

### **High Priority Projects proposed to be completed or initiated from July 2021 to June 2024 include:**

1. Complete the rulemaking to update aquatic life use subcategory designations for temperature.
2. Complete the rulemaking to designated aquatic life use subcategories for dissolved oxygen.
3. Complete variance implementation procedures.
4. Complete case studies and other preparations for temperature variances and respond to any variance applications.
5. Conduct rulemaking to adopt aquatic life criteria for toxic pollutants including acrolein, carbaryl, diazinon, nonylphenol and potentially aluminum and cadmium, and revise the criteria for selenium.
6. Develop procedures to apply the toxics narrative criterion in the assessment, permitting, and other water quality protection programs.
7. Develop procedures to apply the biological narrative criterion in the assessment, permitting, and other water quality protection programs.
8. Develop procedures to apply the algal growth narrative criterion and chlorophyll-a action value in the assessment, permitting, and other water quality protection programs. Together with numeric pH and dissolved oxygen criteria, these procedures will provide the tools needed to prevent or remedy excessive aquatic plant and nuisance phytoplankton growth caused by nutrient loading. This project may recommend developing numeric nutrient criteria for priority waterbodies.
9. Develop procedures to apply the sedimentation narrative criterion in the assessment, permitting, and other water quality protection programs.

### **Additional projects included in the 2021-2024 workplan:**

10. Assist the assessment program with a methodology to assess ocean acidification and marine dissolved oxygen conditions using current criteria and begin background research to identify whether there are gaps in the water quality criteria needed to protect beneficial uses of marine waters.
11. Revise the pH criteria for the Crooked River.
12. Update the antidegradation implementation procedures, as time allows.

13. Compare EPA's recommended human health criteria and DEQ's human health criteria to evaluate whether to update Oregon's human health toxics criteria during the next Triennial Review, as time allows.
14. Correct designated uses for certain constructed waterways, such as irrigation canals and drainage ditches, as time allows and where data are provided to DEQ demonstrating that the proposed use changes are correct and appropriate.

**Table 1: 2021–2024 Water Quality Standards Workplan: Projects Included**

Note: Projects shaded in green were rated a high priority; projects shaded in blue were rated a medium priority.

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	DEQ Reasoning for Priority
<p>Designated Use - Fish and Aquatic Life Subcategories for Temperature - In Progress</p> <p>Beneficial use rule for each basin in OAR 340-041-0101 to OAR 340-041-0340</p>	<p>Adopt clear and appropriate aquatic life use designations based on the best available data, primarily from the Oregon Department of Fish and Wildlife.</p>	<p>Aquatic life use designations have not been updated since 2003 and may not reflect current information.</p>	<p>Fish use designations up to date with ODFW data. Bull trout designations revised based on data from USFWS and ODFW. Update interior basin resident trout use designations.</p>	<p>High administrative and environmental value that will allow DEQ to apply the correct water quality criteria to protect native aquatic life.</p> <p>The USFWS 2015 Biological Opinion on the temperature standard requested that DEQ add specified reaches as bull trout use.</p> <p>This project was identified as a high priority during the 2017 triennial review. DEQ initiated the project in 2020 and expects to complete it in 2022.</p>
<p>Designated Use - Aquatic Life Subcategories for Dissolved Oxygen - In Progress</p> <p>OAR 340-041-0016</p>	<p>Adopt clear and appropriate aquatic life use designations based on the best available data.</p> <p>Specify where and when resident trout spawning is a designated use. Identify where cold, cool and warm water aquatic life communities occur.</p>	<p>The location and timing of the aquatic life use subcategories used in the dissolved oxygen standard have not been designated in rule. The rules do not specify where "active resident trout spawning areas" are located or when spawning and egg incubation occurs. DEQ currently relies on an ecoregional approach and spawning dates outlined in an implementation memo to EPA.</p>	<p>Because there are still data limitations, the uses may be specified by method rather than mapped. The method-based approach would incorporate site specific data when it becomes available or is updated.</p>	<p>This project was identified as a high priority during the 2017 triennial review. DEQ initiated the project in 2020 and expects to complete it in 2022.</p> <p>It will ensure that use designations are based on the best available information and will increase certainty regarding where the dissolved oxygen criteria apply. This will enable DEQ and regulated parties to implement the dissolved oxygen standard more accurately and consistently.</p> <p>This project is rated as high in urgency because EPA requested that DEQ designate resident trout spawning use prior to the next water quality assessment.</p>

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	DEQ Reasoning for Priority
Variance Procedures - In Progress OAR 340-041-0059	DEQ's variance procedures need to be updated to reflect current state and federal regulations and guidance.	The current Variance Internal Management Directive does not reflect Oregon's variance rule updates from 2020 or EPA regulations promulgated in 2015.	Clear implementation procedures will support the use of variances where they are appropriate.  Variances are a Clean Water Act tool for permits and 401 certifications when a water quality standard is not feasibly attainable.	High administrative value because DEQ anticipates that there will be a need for variances in order to issue permits.  This was identified as priority work in the 2017 triennial review. DEQ has initiated the project, but work will continue through 2021.
Temperature Variances - In Progress OAR 340-041-0028, OAR 340-041-0059	Variances for discharges who cannot feasibly meet permit limits based on the current temperature criteria.	The biologically-based temperature criteria are colder than what can be feasibly achieved in multiple locations around the state. Therefore, DEQ expects some dischargers will need to obtain a variance.	Variances for qualified dischargers as needed and appropriate.	This project has high administrative value and urgency because it will allow DEQ to issue permits, with conditions, for dischargers who cannot achieve permit limits based on the temperature standard.  This project is a continuation of variance work identified as a high priority in the 2017 triennial review.
Toxics - aquatic life criteria OAR 340-041-0033	Update Oregon's aquatic life criteria. Consider EPA recommendations for acrolein, carbaryl, diazinon, nonylphenol and selenium. Consider adopting the federally promulgated aluminum and acute cadmium criteria into state rule.	EPA has published new or updated aquatic life criteria recommendations that DEQ has not yet adopted. In addition, EPA promulgated aluminum and acute cadmium criteria for Oregon.	Aquatic life criteria that are up to date with the latest science and with EPA recommendations, to the extent warranted.	High environmental value by adopting new and updated aquatic life toxics criteria. The new criteria will help DEQ limit or prevent discharges and runoff of these pollutants to Oregon waters.  While some of these pollutants are not widely found in Oregon waters or regulated discharges, some are found in ambient waters at levels of concern.
Toxics - narrative criterion OAR 340-041-0033	Review and update procedures to apply Oregon's narrative toxics criterion (i.e. Internal Management Directive). Evaluate how Whole Effluent Toxicity testing is working for the permitting program. Consider other methods or other published benchmarks.	EPA has not developed numeric criteria recommendations for all the new and varied toxic substances that may be impacting waters. Developing procedures to implement the narrative toxics criterion may provide DEQ an opportunity to protect beneficial uses from toxic substances which have no numeric criteria.	The ability to regulate toxic pollutants of concern that have no Clean Water Act numeric criteria.	Potential for high ecological and human health value by allowing DEQ to regulate toxic pollutants of concern that have no numeric criteria.  High administrative value for permitting efficiency and effectiveness by providing clear procedures.

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	DEQ Reasoning for Priority
Biocriteria OAR 340-041-0011	Update procedures to apply the narrative biocriteria. Consider how the biocriteria could complement other criteria, such as excessive algal growth and sedimentation, and how to develop stressor identification tools.	The narrative biocriteria criterion could be more fully used to understand where impacts to beneficial uses are occurring. Better methods for the stressor identification process are needed. Also, the biological criterion is currently not applicable to all waterbodies.	Clear procedures that apply new metrics and methods to more fully use biocriteria and biological assessment in DEQ's water quality protection programs.	High environmental value through aquatic life protection. This will allow DEQ to consistently apply the existing narrative criterion.
Excessive Aquatic Plant and Algal Growth and Nuisance Phytoplankton Growth OAR 340-041-0007, OAR 340-041-0019	A phased, integrated approach for dealing with excessive aquatic plant and algae growth and eutrophication. This approach should include clear and consistent procedures to apply the excessive algal growth narrative criterion and chlorophyll-a action value together with the numeric pH and dissolved oxygen criteria.	DEQ does not have documented procedures to apply these narrative criteria. Total Maximum Daily Loads can identify the pollutants causing dissolved oxygen, pH or chlorophyll-a exceedances. However, there may be a need to control nutrient loading prior to the completion of a TMDL.	Targeted control of nutrient pollution where it is degrading water quality.  Consider whether numeric nutrient criteria are needed for specific waterbodies.	This would help DEQ address excessive algal growth and nutrient loading with current rules.  High environmental and administrative value for waterbodies where the water quality impacts from nutrient loading could be reduced or mitigated.
Sedimentation OAR 40-041-0007 (11)	Build on current knowledge and experience to develop procedures to apply the narrative criterion pertaining to suspended and bedded sediment.	DEQ does not have documented procedures to apply this narrative criterion. However, stream substrate is an important feature of salmonid spawning habitats, including Endangered Species Act listed species. Sediment transport and dynamics are a variable but critical element of a properly functioning stream and floodplain. The importance is heightened by recent wildfires, which may lead to increased inputs of sediment.	Clear metrics and methods to apply the sedimentation narrative criterion. Improved ability to prevent or remedy the impacts of sediment on threatened and endangered salmon and steelhead and other native biota and to protect healthy functioning streams.	High environmental value through protection of aquatic life use. However, this project will likely require significant staff resources.  There are no external drivers or pending actions creating urgency for this project. But it has been a need that has gone unaddressed for a long time. DEQ staff expect that there are now methods and metrics that could be used to apply this criterion in a scientifically credible and appropriate manner.

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	DEQ Reasoning for Priority
Ocean acidification & Hypoxia  OAR 340-041-0021; OAR 340-041-0016	Work with the assessment program on methods to assess ocean conditions using existing numeric and narrative criteria. Begin background work to consider whether new or revised criteria are needed.	The assessment program is determining how current criteria may be used to assess whether marine aquatic life are impaired due to ocean acidification or hypoxia.  It is uncertain whether criteria revisions are needed to protect marine aquatic life or whether the data needed to revise the criteria is available.	Better ability to assess ocean conditions for aquatic life protection. Participate in the ocean acidification and marine dissolved oxygen focus groups that will convene to inform the 2024 assessment methodology.	Ocean acidification and hypoxia are important issues. DEQ needs a clear assessment methodology for the 2024 assessment cycle. The priority is to assist the assessment program with a methodology using current criteria. DEQ will also begin background work to determine whether criteria revisions are needed to protect marine aquatic life, as time allows.
Toxics - human health criteria – <b>As time allows</b>  OAR 340-041-0033	Conduct a thorough review of EPA’s recommended human health criteria to determine how Oregon’s human health criteria compare and whether updates are needed, as time allows.	Oregon last updated the human health criteria in 2011. EPA has published new criteria recommendations since that time. However, Oregon criteria are based on a much higher fish consumption rate than the national recommendations.	Identify the discrepancies between EPA recommended criteria and Oregon criteria and the basis for those.	This project has value for understanding how Oregon criteria compare with EPA's recommendations and would require a moderate amount of effort. The information will help DEQ evaluate whether to update the state’s human health criteria during the next triennial review.
Designated Use - public water supply, certain constructed waterways – <b>As time allows</b>  Beneficial use rule for each basin in OAR 340-041-0101 to OAR 340-041-0340.	Correct designated uses for certain constructed waterways, such as irrigation canals and drainage ditches, as time allows.  Potentially review domestic water supply use designations, as time allows.	Some waters, such as constructed irrigation canals and others, have legacy use designations from the basin approach that do not reflect existing uses and may not be appropriate or attainable for the waterbody. These use designations may be scientifically incorrect and are perceived by stakeholders as inappropriate goals for the waterbody.	Revised use designations where appropriate and scientifically supported, which will clarify what criteria apply.  Drinking water use is designated for many waters of the state that are not used for domestic water supply.	Ensuring that the designated uses for certain irrigation canals are accurate and appropriate will improve the water quality assessment and the credibility of water quality standards. Permitted discharges to these waters are rare, but may be proposed for water reuse. Use Attainability Analyses may be required.
pH  OAR 340-041-0021	Revise the pH criteria for the Crooked River, as time allows.	The pH criteria for the Crooked River may not reflect the basin conditions (i.e. geology, rainfall, buffering capacity, etc.) and the range of natural variability in pH. Other eastern Oregon pH criteria were revised in 1996.	Criteria that are protective of uses in the waterbody and reflective of basin conditions.	DEQ will soon begin Total Maximum Daily Load work for the Crooked River. Correcting the pH criterion, as appropriate, will ensure the TMDL targets the correct criterion. This revision can be packaged with another rulemaking to minimize the staff resource spent

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	DEQ Reasoning for Priority
Antidegradation Implementation IMD Update – <b>As time allows</b>  OAR 340-041-0004	Update the antidegradation policy implementation procedures, as time allows.	Oregon's antidegradation implementation procedures were developed in 2001. Since that time, both state and federal antidegradation regulations have been revised. Permittees and permitting staff rely on the IMD, which occasionally leads to incorrect outcomes.	Clear implementation procedures consistent with current state and federal regulations.	Changes would not have a high environmental value, but clarity would save time for staff writing permits and water quality certifications. The antidegradation directive is 20 years old. It contains incorrect rule citations and doesn't reflect the current approach to antidegradation evaluation and implementation.

## 4.2 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 the triennial review process. During the last Triennial Review in 2017, DEQ committed to evaluate the need for and scope of rulemaking to adopt new or revised 304(a) aquatic life criteria. DEQ evaluated the need and as a result, plans to conduct a rulemaking to update Oregon's aquatic life criteria, including new criteria published by EPA for acrolein, carbaryl, diazinon, and nonylphenol as well as an update of the selenium criteria. In addition, DEQ will consider adopting the acute cadmium and aluminum criteria currently in federal regulation into our state standards.

DEQ chose not to adopt 304(a) recommendations for the cyanotoxins microcystin and cylindrospermopsin as recreational criteria. EPA's 304(a) recommendations for microcystin and cylindrospermopsin are to either adopt them as human health recreational criteria or use them as advisory values. The Oregon Health Authority issues recreational advisories for harmful algal blooms and uses the EPA-recommended thresholds. In addition, DEQ assesses waterbodies and identifies them as impaired based on those advisories. As a result, adopting these as water quality criteria would result in no significant additional benefit to Oregon waters.

DEQ also chose not to update human health criteria during the next three years. DEQ updated Oregon's human health criteria in 2011 based EPA's recommendations at that time and incorporated a fish consumption rate of 175 grams/day, which is among the highest rates in the nation. Use of this fish consumption rate may ensure that Oregon's human health criteria are sufficiently protective for many chemicals as compared to EPA's 2015 recommended human health criteria, which varied in terms of whether the 2015 recommendations were more or less stringent than previous recommendations. The priority projects identified in DEQ's workplan, including an update to our aquatic life toxics criteria, will fully utilize DEQ's available staff over the next three years. DEQ will review EPA's recommended 304(a) criteria and how they compare with Oregon's human health criteria near the end of this three year period to consider and prepare for a possible review of the human health criteria during the next Triennial Review period.

# Appendix A- 2021-2024 Triennial Review Workplan

**Table A-1. 2021–2024 Water Quality Standards Workplan: Estimated Schedule (Subject to Change)**

Project	2021		2022				2023				2024	
	July-Sept.	Oct.-Dec.	Jan.-March	April - June	July-Sept.	Oct.-Dec.	Jan.-March	April-June	July-Sept.	Oct.-Dec.	Jan.-March	April-June
Update Fish and Aquatic Life Use Designations												
Aquatic Life Use Definition Clarifications												
pH for Crooked River												
Variance Procedures												
Temperature or other Requested Variances and UAAs/SSC												→
Revise Aquatic Life Toxics Criteria												
Update Antidegradation IMD		As	time	allows								
Biocriteria Application Procedures												
Ocean Acidification & Hypoxia: assessment, background work												
Toxics Narrative Criterion Application Procedures												
Excessive Growth Narrative Criterion Application Procedures												
Sedimentation Application Procedures												→
Background Review of Human Health Toxics Criteria									As	time	allows	
Revise Designated Uses for Constructed Waterways								As	time	allows		→

Notes:

1. The schedule and timeframes illustrated above are estimates and are subject to change.
2. The projects on this table are in chronological order and are not strictly in priority order.
3. Select medium priority projects will be initiated “as time allows,” as noted in the timelines.
4. The alternating colors are used only to make the table easy to read.

# Appendix B- Summary of and Response to Public Comments

Commenter Acronym	Commenter Full Name or Organization
ACWA	Oregon Association of Clean Water Agencies;
CBD	Center for Biological Diversity
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
CR	Columbia Riverkeeper
CRITFC	Columbia River Inter-Tribal Fish Commission
DC	Doris Cellarius (Individual)
DLCD	Department of Land Conservation and Development
DRA	Deschutes River Alliance
EPA Region 10	U.S. Environmental Protection Agency, Region 10
EPID	Eagle Point Irrigation District
GRP	Grazing Reform Project;
MFID	Middle Fork Irrigation District
NEDC	Northwest Environmental Defense Center
NWEA	Northwest Environmental Advocates
NWPPA	Northwest Pulp & Paper Association
ODFW	Oregon Department of Fish and Wildlife
OFB	Oregon Farm Bureau
OFIC	Oregon Forest & Industries Council
OFS	Oregonians for Food & Shelter
OWRC	Oregon Water Resources Congress
Portland BES	City of Portland Bureau of Environmental Services
PWB	Portland Water Bureau

## B.1 Comments on DEQ’s High Priorities

### B.1.1 General

**Comments:**

1. Agree that the projects DEQ identified as high priority will have substantial environmental value or administrative value for permitting efficiency and effectiveness. Supports allocating DEQ resources to these projects. (Portland BES, ACWA)
2. Support high priority projects in the order they were presented, except sedimentation should be a medium priority. (NWPPA)
3. Support as high priority projects to develop procedures to interpret and apply narrative criteria. (EPA Region 10, ACWA)

**Response:** DEQ appreciates the input on the set of proposed high priority projects and that this work will provide environmental and administrative value. DEQ appreciates the support for developing procedures to apply narrative criteria.

4. Revise the draft Highest Priorities list because it excludes pressing water quality problems. (CR, NEDC)

5. DEQ received comments that other projects should be elevated to a high priority, including: revising the antidegradation policy, the temperature standard, and the mixing zone rule, developing UAA procedures, and adopting wetlands criteria.

**Response:** In response to comments that additional high priority work should be included, DEQ made some additions to the 2021-2024 workplan. The final 2021-2024 workplan reflects DEQ's priorities and the current staff capacity in the water quality standard program.

### **B.1.2 Designated Use - Fish and Aquatic Life Subcategories for Temperature - In Progress (Beneficial use rule for each basin in OAR 340-041-0101 to OAR 340-041-0340)**

#### **Comments:**

1. Support for this project being a high priority. (MFID, DRA, ODFW, DLCD)

**Response:** DEQ appreciates the support for this high priority project.

2. Suggest revising bull trout use spawning and juvenile rearing temperature criterion. The reservoir criterion for Laurance Lake is problematic and is not consistent with the best management of the reservoir for bull trout. (MFID)

**Response:** The aquatic life use update project will correct where bull trout are designated uses based on data from USFWS and ODFW. However, the workplan does not include a revision to the temperature criterion at OAR 340-041-0028(4)(f). Federal regulations require standards to protect designated beneficial uses, in this case, bull trout. Obstacles arising related to best management for the fish will need to be addressed within the 401 certification program.

3. DEQ should update the aquatic life uses for the Bull Run River. The City can provide data. (PWB)

**Response:** DEQ has included consideration of this use change in the scope of the aquatic life use updates currently underway.

### **B.1.3 Designated Use - Aquatic Life Subcategories for Dissolved Oxygen - In Progress (OAR 340-041-0016)**

#### **Comments:**

1. DEQ should update the aquatic life uses for the Bull Run River. The City can provide data. (PWB)

**Response:** DEQ has included consideration of this use change in the scope of the aquatic life use updates currently underway.

2. ACWA encourages the use of finer spatial discretization of aquatic life designated uses for dissolved oxygen when supported by local conditions and best science. (ACWA)

**Response:** DEQ would like to hear more from ACWA about this comment. The scope of this project does not include revising the dissolved oxygen standard, and therefore, DEQ is not changing the use

subcategories as defined in that rule. However, if this pertains to identifying where and when those use subcategories occur and should be designated, DEQ would welcome more information regarding ACWA's suggestion during that process.<sup>3</sup> Concern about revising use subcategories for dissolved oxygen without also revising the dissolved oxygen standard. Urge DEQ to make the subcategories detailed, well-informed, data-driven and attainable. (OFB, OFIC, OFS, OWRC).

**Response:** DEQ will strive to ensure this work is well-informed, data driven and clear. The use subcategories are established in the dissolved oxygen standard, which is not being revised at this time. Use designations will be based on information about where and when the use is an existing use or has been attained in the waterbody since 1975. DEQ's goal is that the use designations are accurate and appropriate.

#### **B.1.4 Variance Procedures - In Progress (OAR 340-041-0059) and Temperature Variances - In Progress (OAR 340-041-0028, OAR 340-041-0059)**

##### **Comments:**

1. Commenters support DEQ's work on variances as high priorities, and agree they will have environmental or administrative value. (Portland BES, ACWA, NWPPA)

**Response:** DEQ appreciates the support for these high priority projects.

2. Commenters do not agree that the projects related to variances provide any environmental benefit. (NWEA)

**Response:** Variances have administrative value and can also provide environmental value because they provide a tool for moving forward with permitting a facility that cannot feasibly meet a particular water quality criterion and sets milestones for improving water quality during the term of the variance. Renewing permits in a timely manner is an important goal for DEQ and provides water quality improvements and benefits for other water quality parameters, as well as steps to reduce the pollutant subject to the variance.

3. DEQ should remove variance procedures from the highest priorities list. (CR, NEDC)

**Response:** This project is currently underway and is needed so that DEQ can respond to variance requests in an appropriate, efficient and consistent manner.

4. While variances make sense in specific cases, they should not be used broadly to avoid improvements to water quality for the sake of process efficiency. (CRITFC, CTUIR)

**Response:** DEQ agrees that variances are not a tool to avoid water quality improvements. Variances provide an alternative target for a permitted point source facility or entity subject to a 401 certification for a specified period of time. In order to receive a variance, the permittee must demonstrate that it is not feasible to attain the criterion (i.e. a permit limit based on meeting the criterion instream) for a specific period of time and must identify how they will reduce the pollutant during the term of the variance.

5. Support clear procedures for variances and creation of temperature variances. However, DEQ should prioritize revising the standards that necessitate the use of variances to recognize natural conditions and do use attainability analysis. (OFB, OFIC, OFS, ORWC)

**Response:** DEQ acknowledges the support for the variance work. DEQ has considered whether to revise the temperature standard to better account for natural conditions. This would be a larger time-consuming

rulemaking project. At some point, revisions to the underlying standard may become a priority. However, in the meantime, variances provide a near term solution for permittees.

6. Portland Water Bureau has a Bull Run Water Supply Habitat Conservation Plan and has achieved environmental goals, but cannot meet water temperature targets in all years. The City needs a regulatory compliance pathway and regulatory certainty. (PWB)

**Response:** DEQ acknowledges the City's concern and interest in aligning the HCP and CWA targets. DEQ has included review of the Bull Run River use designations in the scope of the ALU project to ensure the standards are appropriate. DEQ will discuss regulatory options with the city if the temperature criteria remain unattainable.

### **B.1.5 .Toxics - aquatic life criteria (OAR 340-041-0033)**

#### **Comments:**

1. Support updating aquatic life criteria as a high priority. (NWEA, EPA Region 10, ACWA, CR, NEDC)

**Response:** DEQ appreciates the support for this project as a high priority.

2. Ensure approach is consistent with and does not go further than federal recommendations. Ensure each criterion is necessary and appropriate to protect beneficial uses in Oregon. (OFB, OFIC, OFS, OWRC)

**Response:** It is DEQ's intent to adopt aquatic life criteria that are necessary and appropriate to protect Oregon's native aquatic species and meet federal requirements.

3. If adopt aluminum, ensure Oregon can use bioavailable so streams are not listed as impaired due to natural levels of aluminum. (ACWA, OFB, OFIC, OFS, OWRC)

**Response:** DEQ intends to use the bioavailable method to measure ambient aluminum concentrations. DEQ is currently developing reliable bioavailable analytic methods. If DEQ adopts aluminum criteria, we will make this clear.

### **B.1.6. Toxics – narrative criterion (OAR 340-041-0033)**

#### **Comments:**

1. Agree it is a high priority to develop procedures to apply the Oregon's narrative criterion for toxics. (NWEA, EPA Region 10, DC, CRITFC, CR, NEDC, CTUIR)

2. Agree with DEQ's high priorities, which include the toxics narrative procedures, but did not add comment specifically about this project. (Portland BES, NWPPA, ACWA)

3. Cannot support this project as a priority, there is insufficient detail provided about the intent, how it will be updated and what other benchmarks or methods will be considered. (OFB, OFIC, OFS, OWRC)

**Response:** DEQ appreciates the comments that support this project as a high priority. DEQ understands the concern about the limited information provided in the project description. DEQ would evaluate scientifically credible and relevant information or benchmarks published by EPA or other federal agencies.

### **B.1.7. Biocriteria OAR 340-041-0011**

**Comments:**

1. Support that it is a high priority to develop science-based, clear and transparent procedures to implement the narrative biocriteria. (ACWA)
2. Agree that it is a high priority to develop clear procedures to apply the biocriteria, particularly bio-assessment methods for ocean acidification and hypoxia. (ODFW, DLCD)

**Response:** DEQ appreciates the support for this as a high priority project. This project, in the near term, would update and document bio-assessment methods that could be used for wade-able streams and will consider whether there are methods that enable DEQ to expand biocriteria assessment to additional freshwater systems. The project scope does not include bio-assessment methods for ocean waters. See response to comments B.2.1 below.

### **B.1.8. Excessive Aquatic Plant and Algal Growth and Nuisance Phytoplankton Growth (OAR 340-041-0007, OAR 340-041-0019)**

**Comments:**

1. Support establishing numeric nutrient criteria for priority waterbodies and developing procedures to apply the narrative criteria as a high priority. (NWEA, EPA Region 10, CRITFC, CR, NEDC, CTUIR, DRA)

**Response:** DEQ appreciates the support for addressing excessive growth as a high priority project.

2. This will also help with problem of ocean acidification and dissolved oxygen in marine waters. (NWEA, CR, NEDC)

**Response:** DEQ appreciates this observation. Managing water quality in rivers should reduce land-based loading to estuarine and marine waters.

3. Support setting standards for nutrient loading in headwaters on public lands. (GRP)

**Response:** DEQ acknowledges this interest in headwaters.

4. DEQ should also revise pH and address harmful algal blooms, these are all related to nutrient pollution, and a comprehensive plan to address these interrelated issues is much more likely to succeed. (DRA)

**Response:** DEQ appreciates the comment that multiple water quality parameters can be related to nutrient loading and are interrelated. Water quality standards specifically, are established by parameter. However, we agree that the relationships between parameters as well as the relationship to endpoints that impact beneficial uses need to be considered in order to establish a set of water quality criteria that will protect the beneficial uses.

5. This is not a high priority, work is already occurring to address harmful algal blooms. If move forward, be careful to focus on harmful algal blooms that present a threat to drinking water, recreation or the health of livestock and wildlife. Algal blooms occur naturally, so avoid a coarse or broadly applied nutrient criteria. (OFB, OFIC, OFS, OWRC)

**Response:** DEQ agrees that work is already occurring, especially on how to predict and warn water suppliers of toxic algal blooms. DEQ is also aware of additional issues related to how to prevent and control algal blooms that are caused or exacerbated by anthropogenic sources that could be addressed through improved application of water quality standards. This effort will focus on protecting the uses listed above as well as aquatic life. DEQ agrees that the standards must account for the variability of natural conditions across the state's waterbodies.

### **B.1.9. Sedimentation (OAR 40-041-0007 (11))**

#### **Comments:**

1. Excessive sediment is a problem from headwaters downstream and is damaging streambanks and wetlands. (Grazing Reform Project)
2. Agree that high priority rating for sedimentation narrative procedures is warranted. Excess sediment is a leading cause of habitat degradation for ESA-listed salmonids. (CR, NEDC)
3. Support for procedures to implement narrative criteria. (EPA, Portland BES, NWEA, ACWA)
4. The other high priority projects are more critical. (NWPPA)
5. Strongly urge DEQ not to move forward with sedimentation review in order to address other issues. If DEQ does move forward, urge a fair, balanced and transparent approach that creates attainable targets, accounts for natural background conditions and avoids arduous compliance burdens. (OFB, OFIC, OFS, OWRC)

**Response:** DEQ appreciates the support from some commenters for this project as a high priority. DEQ also acknowledges that sediment loads and transport are part of naturally functioning stream systems and that a water quality standard needs to account for natural conditions and variability and address excess sedimentation that would harm beneficial uses.

## **B.2 Select Comments on DEQ's Medium Priorities**

### **B.2.1. Ocean Acidification, Dissolved Oxygen, other (OAR 340-041-0021, OAR 340-041-0016)**

#### **Comments:**

1. Assessment of ocean acidification (OA) and dissolved oxygen in marine waters should be a high priority projects. (CRITFC)
2. Concerned about marine ecosystems and ocean conditions, supports DEQ's work on OA. (CTUIR)
3. Include updated ocean acidification criteria as a high priority. OA, pH and biocriteria are related. (CBD)
4. Marine water dissolved oxygen criterion should be high priority. (ODFW, DLCD)
5. Re-evaluate temperature standard for marine waters. (ODFW, DLCD)

**Response:** DEQ acknowledges that several commenters rate ocean conditions as a high priority. During the 2021-2024 timeframe, the standards program will work with the water quality assessment program on methodologies to assess ocean acidification and hypoxia, including input from technical experts. This will enable the standards program to begin to research and evaluate the science and the policy issues and to determine whether to revise or adopt new Clean Water Act standards related to ocean conditions during the next triennial review.

### **B.2.2. Toxics - human health criteria (OAR 340-041-0033)**

#### **Comments:**

1. Support DEQ undertaking this project to ensure Oregon's human health criteria are based on the latest scientific information and protect high fish-consuming populations. (CRITFC)

**Response:** DEQ agrees that a review and update of the human health criteria should be conducted periodically. However, having made a large revision to our HHC in 2011, we conclude that other standards projects should be initiated in the near term and an update to the HHC should be considered for the next triennial review cycle. If time allows during the 2021-2024 timeframe, staff will begin to compare EPA's latest human health criteria recommendations to determine what revisions have been made, what they are based on, and how they compare to Oregon's human health criteria.

### **B.2.3. Designated Use - public water supply, constructed waterways beneficial use rule for each basin (OAR 340-041-0101 to OAR 340-041-0340)**

#### **Comments:**

1. Project to correct designated uses for constructed waterways, such as irrigation canals and drainage ditches should be a high priority for 2021-2024. (OFB, OFIC, OFS, OWRC)

2. Encourage DEQ to be flexible and address this as opportunities arise, even if it remains a medium priority. (OWRC)

**Response:** Although DEQ understands the interest in correcting the uses for these waterways, we are unaware of significant consequences to delaying this work and have concluded that this work does not have a high urgency. However, DEQ agrees that the state's use designations should be accurate and appropriate. Therefore, DEQ added this project to DEQ's 2021-2024 workplan as time allows if the needed information and documentation are available. DEQ encourages the commenters to identify specific consequences or opportunities for specific revisions in support of this effort.

### **B.2.4. pH (OAR 340-041-0021)**

#### **Comments:**

1. Urges DEQ to elevate revisions to pH to pursue that concurrently with the algal growth/nutrient work. (DRA)

2. pH corrections should be prioritized ahead of toxics criteria and methodologies for narrative criteria. (OFB, OFIC, OFS, OWRC)

**Response:** DEQ proposes to include revising the pH criterion for the Crooked River. DEQ will be working on a TMDL for the Crooked River and it would be beneficial to have the correct pH standard in place. In addition, the information is available and this should not be a time consuming project. However,

revising the pH criteria for the Columbia River and for coastal basins would require significantly more effort and that work is not a higher priority than the projects proposed for the 2021-2024 timeframe.

#### **B.2.4. Antidegradation (OAR 340-041-0004)**

##### **Comments:**

1. Recommend developing a method to implement Tier 1 of the antidegradation policy. (NWEA)
2. Support moving an antidegradation policy update to a high priority. (CR, NEDC)

**Response:** DEQ has developed a method to implement its antidegradation policy with respect to protection of existing uses, frequently called “Tier 1 protection.” This method is documented in a November 2014 memo available on DEQ’s antidegradation web page. Based on comments received, DEQ has included an update of the antidegradation Internal Management Directive in the 2021-2024 workplan as time allows, in order to ensure the procedures are clear and consistent with current state and federal policies. DEQ does not plan to update the antidegradation policy at OAR 340-041-0004 during this triennial review period.

### **B.3 New Projects Suggested by Commenters**

#### **B.3.1. Columbia and Lower Snake Rivers Temperature TMDL implementation**

##### **Comments:**

1. The priority list should be amended to include actions that address Oregon’s implementation of EPA’s Columbia and Lower Snake Rivers Temperature (TMDL) given that the TMDL is failing to meet temperature standards. (CRITFC, CR, NEDC, CTUIR).

**Response:** Implementation of the temperature TMDL is not a water quality standards revision and is outside the scope of the work of the water quality standards program. DEQ’s TMDL program will be developing an Oregon Water Quality Management Plan to address Oregon’s implementation of EPA’s Columbia and Lower Snake Rivers Temperature TMDL. That process will include an opportunity for public comment.

#### **B.3.2. Mixing Zones**

##### **Comments:**

1. Strongly urges DEQ to revise mixing zone rules in the interest of clarifying places where and under what circumstances mixing zones are not allowed in order to protect the public and wildlife. Recommends this project as a high priority (NWEA).
2. Commenters urge DEQ to revisit the agency’s mixing zone regulations and internal management directive (“IMD”) to ensure the agency’s current policies reduce persistent bioaccumulative toxic pollutants and protect water quality (CR, NEDC).

**Response:** DEQ uses the mixing zone rules in OAR 340 division 041 and the Mixing Zone Internal Management Directive to ensure placement and sizing of mixing zones are protective of the receiving stream beneficial uses. The procedures described in the IMD ensure critical water quality habitat is protected. Location, size, impacts of conventional and toxic pollutants, as well as bio-accumulative toxic pollutants are included in the evaluation of point source discharges in individual NPDES permit renewals. DEQ believes the IMD ensures that the mixing rules are implemented to protect beneficial uses.

# Appendix C- Summary of External Comments

Table C-1. General comment summary by commenter.

General Comment Summary
<p>BES is supportive of DEQ’s efforts to review and update the state’s water quality standards. We agree that all of the priority projects identified by DEQ as ‘high’ priorities in Table 1 are efforts that will have substantial environmental value or administrative value for permitting efficiency and effectiveness. We recognize that DEQ must balance projects with available resources and that all efforts cannot be addressed during this review period. BES supports DEQ’s assignment of ‘medium’ and ‘low’ priority project ratings with the following exception with the exception of the ranking of Wetlands criteria. (Portland BES).</p> <p>EPA supports DEQ for undertaking a triennial review of the state’s water quality standards consistent with the federal water quality standards regulations at 40 CFR 131.20 and strongly encourages DEQ to use the triennial review process to update any of Oregon’s water quality standards to align with EPA’s regulations (EPA Region 10).</p> <p>NWPPA generally agrees with the high priority projects drafted by DEQ, with the exception of sedimentation, which should be reduced to a "medium" or "low" priority (NWPPA).</p> <p>ACWA supports DEQ's work to review and update water quality standards, and to develop priority ratings of "high", "medium", and "low" to the standards review and revision projects. ACWA agrees that the projects prioritized as "high" would have significant administrative and/or environmental value and supports DEQ's allocation of resources to complete these projects within the next three years (ACWA).</p> <p>We urge DEQ and the Environmental Quality Commission (“EQC”) to take bold action to address the serious threats facing Oregon’s rivers, streams, wetlands, and other waterbodies. DEQ proposes to invest an inordinate amount of staff time to create pollution loopholes such as variances at the cost of revising and developing standards to reduce pollution. We urge DEQ and the EQC to frame the Triennial Review through the lens of pollution reduction (CR, NEDC).</p> <p>Many of the State’s waterways remain polluted; toxic contaminants in many fish species, from many locations, are well-documented. The Review should focus on what is needed to address and correct this situation (CTUIR).</p> <p>DRA urges DEQ to give more weight to the “value” and “urgency” of a water quality project in determining its projects’ priority levels. While it is important to consider the level of effort and the risk of success in assessing a project, valuable and urgently-needed projects should be pursued regardless of the effort needed or level of previous experience on the topic (DRA).</p> <p>Augmenting DEQ’s in-house capacity for developing standards including technical expertise with marine data is a top recommendation from ODFW Marine Resources Program (MRP) and Water Quality and ODFW Quantity Program (WQQ) and DLCD. This enables the State to elevate projects that support effective assessment and management of Oregon’s marine and marine-influenced waters. Without sufficient capacity at ODEQ, there will be increased reliance on outside partners that may shift priorities or delay the necessary progress to assess and classify Oregon’s marine waters (ODFW, DLCD).</p> <p>As a broad policy, we strongly encourage DEQ to accurately estimate both the time and resources involved in completing any of these updates. Each of these updates would require strong stakeholder engagement, a transparent process, and thorough evaluation of relevant science around the update, all of which would require significant staff time and agency resources. We strongly encourage DEQ not to aspire to more updates than they can achieve while maintaining a transparent process and engagement with impacted stakeholders, and while completing the four current updates they have underway (all of which need greater stakeholder engagement). We encourage the agency to focus on crafting attainable water quality standards that recognize natural impairments to beneficial uses and fixing broken water quality standards (OFB, OFIC, OFS, OWRC).</p>

Regarding the process, we would suggest DEQ further engage with stakeholders outside of the formal Triennial Review to discuss and develop strategies for addressing high, medium, and low priority water quality standards review and revision projects. This could be helpful in several ways; improved transparency on how the agency prioritizes water quality program workload, increased awareness about the drivers behind the priorities, leading to greater stakeholder support for agency identified priorities, and creating opportunities for proactive revision if resources become available or other circumstances change (OWRC).

**Notes:** ACWA – Oregon Association of Clean Water Agencies; CBD – Center for Biological Diversity; CTUIR – Confederated Tribes of the Umatilla Indian Reservation; CR – Columbia Riverkeeper; CRITFC – Columbia River Inter-Tribal Fish Commission; DC – Doris Cellarius (Individual) ; DLCDC – Department of Land Conservation and Development; DRA - Deschutes River Alliance; EPA Region 10 – U.S. Environmental Protection Agency, Region 10; EPID – Eagle Point Irrigation District; GRP – Grazing Reform Project; MFID – Middle Fork Irrigation District; NEDC - Northwest Environmental Defense Center; NWEA – Northwest environmental Advocates; NWPPA – Northwest Pulp & Paper Association; ODFW – Oregon Department of Fish and Wildlife; OFB – Oregon Farm Bureau; OFIC – Oregon Forest & Industries Council; OFS – Oregonians for Food & Shelter; OWRC – Oregon Water Resources Congress; Portland BES – City of Portland Bureau of Environmental Services; PWB – Portland Water Bureau

**Table C-2. Summary of external comments received by project.**

DEQ's High Priority Projects	Project Scope and Outcome	Summary Comments Received
Designated Use - Fish and Aquatic Life Subcategories for Temperature - In Progress Beneficial use rule for each basin in OAR 340-041-0101 to OAR 340-041-0340	Adopt clear and appropriate aquatic life use designations based on the best available data, primarily from the Oregon Department of Fish and Wildlife.  Designate additional bull trout habitat as requested by the US Fish & Wildlife Service and remove reaches that are not bull trout habitat according to data from USFWS and ODFW. Update interior basin resident trout use designations	Provide river miles on designated use maps. (NWEA).  Revise report language to reflect that "EPA's request" includes the updates to the resident trout spawning use designations to be clarified in rule, as well as additional areas of bull trout spawning and rearing use, consistent with the final critical habitat for bull trout referenced in the USFWS 2015 Biological Opinion (EPA Region 10)  Supports DEQ prioritizing a review of the Fish and Aquatic Life Subcategories for Temperature under the 2021 Triennial Review, specifically for a revision to the bull trout spawning and juvenile rearing temperature criteria under OAR 340-041-0028(4)(f) (MFID).  Agrees that this project will have substantial environmental or administrative value for permitting efficiency and effectiveness (Portland BES, ACWA).  Supports this as a high priority project and the allocation of resources to work on this project (NWPPA, ACWA).  DEQ should update the designated fish uses and aquatic life subcategories for the Bull Run River, including data submitted by the Water Bureau over the last 6 years (PWB).  Supports revising fish and aquatic life use subcategories for temperature and dissolved oxygen as a "high" priority, and urges DEQ to complete these projects as soon as possible (DRA).  Supports as fourth-ranked high priority project. Recommends new rule language to contain provisions for more frequent updates (ODFW, DLCDC).

<p>Designated Use - Aquatic Life Subcategories for Dissolved Oxygen - In Progress OAR 340-041-0016</p>	<p>Adopt clear and appropriate aquatic life use designations based on the best available data.</p> <p>Specify where and when resident trout spawning is a designated use. Identify where cold, cool and warm water aquatic life communities occur. Because there are still data limitations, the uses may be identified by map or by method. The method-based approach would incorporate site specific data when it becomes available or is updated.</p>	<p>Provide river miles on designated use maps. (NWEA).</p> <p>DEQ should update the designated fish uses and aquatic life subcategories for the Bull Run River, including data submitted by the Water Bureau over the last 6 years (PWB).</p> <p>Agrees that this project will have substantial environmental or administrative value for permitting efficiency and effectiveness (Portland BES).</p> <p>Supports this as a high priority project and the allocation of resources to work on this project (NWPPA).</p> <p>Agrees that the projects prioritized as "high" would have significant administrative and/or environmental value and supports DEQ's allocation of resources to work on these projects. Also encourages use of finer spatial discretization of aquatic life designated uses for dissolved oxygen when supported by local conditions and best science (ACWA).</p> <p>Supports revising fish and aquatic life use subcategories for temperature and dissolved oxygen as a "high" priority, and urges DEQ to complete these projects as soon as possible (DRA).</p> <p>Does not support the revision of designated uses for fish and aquatic life subcategories for dissolved oxygen without reviewing and/or revising the DO standard first (OFB, OFIC, OFS, OWRC).</p>
<p>Variance Procedures - In Progress OAR 340-041-0059</p>	<p>The directive needs to be updated to reflect current state and federal regulations and guidance.</p> <p>Clear implementation procedures will support the use of variances where they are appropriate.</p>	<p>Does not support the development of variance procedures as a high priority project. Strongly disagrees that nonpoint source pollution will be remedied with variances. Views variances as a method for avoiding water protection goals (NWEA).</p> <p>Agrees that this project will have substantial environmental or administrative value for permitting efficiency and effectiveness (Portland BES).</p> <p>Does not support work on variance procedures. DEQ should focus on other methods, such as addressing non-point sources to protect water quality (CRITFC).</p> <p>Agrees that the projects prioritized as "high" would have significant administrative and/or environmental value and supports DEQ's allocation of resources to work on these projects. (ACWA).</p> <p>Does not support broad, statewide variance work as a way to protect resources (CTUIR).</p> <p>Supports work toward creating variances when regulations cannot be met. Urges DEQ to also prioritize revising standards that cause the need for variances (OFB, OFIC, OFS, OWRC).</p> <p>Supports this as a high priority project and the allocation of resources to work on this project (NWPPA).</p>

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		<p>Encourages DEQ to use ODFW's Statewide Aquatic Habitat Prioritization Tool in variance determination (ODFW, DLCD).</p>
<p>Temperature Variances - In Progress OAR 340-041-0028, OAR 340-041-0059</p>	<p>Variances for dischargers who cannot feasibly meet permit limits based the current temperature criteria.</p>	<p>Does not support the development of variance procedures as a high priority project. Strongly disagrees that nonpoint source pollution will be remedied with variances. Views variances as a method for avoiding water protection goals (NWEA).</p> <p>Agrees that this project will have substantial environmental or administrative value for permitting efficiency and effectiveness (Portland BES).</p> <p>Supports this as a high priority project and the allocation of resources to work on this project (NWPPA).</p> <p>Agrees that the projects prioritized as "high" would have significant administrative and/or environmental value and supports DEQ's allocation of resources to work on these projects (ACWA).</p> <p>Strongly believe that DEQ should remove variance procedures from the highest priorities list (CR, NEDC).</p> <p>Does not support work on variance procedures. DEQ should focus on other methods, such as addressing non-point sources to protect water quality (CRITFC).</p> <p>Requests regulatory certainty about meeting water temperature targets in the lower Bull Run River and supports this work as a high priority project at DEQ. Given the tight schedule for DEQ's review process, Water Bureau staff would like to work soon with DEQ to determine a CWA pathway that will protect the beneficial fish uses and will provide long-term regulatory certainty for Portland (PWB).</p> <p>Supports work toward creating variances when regulations cannot be met. Urges DEQ to also prioritize revising standards that cause the need for variances (OFB, OFIC, OFS, OWRC).</p> <p>Encourages DEQ to use ODFW's Statewide Aquatic Habitat Prioritization Tool in variance determination (ODFW, DLCD).</p>
<p>Toxics - aquatic life criteria OAR 340-041-0033</p>	<p>Update Oregon's aquatic life criteria, considering EPA recommendations for acrolein, carbaryl, diazinon, nonylphenol and selenium. Adopt the criteria into state rule to replace the federally promulgated aluminum and acute cadmium criteria.</p>	<p>Supports updating aquatic life criteria for toxics, including the selenium criterion (tissue and water column) (NWEA).</p> <p>Supports DEQ updating aquatic life criteria for toxics by adopting criteria for acrolein, carbaryl, diazinon, nonylphenol, and selenium (EPA Region 10).</p> <p>Agrees that this project will have substantial environmental or administrative value for permitting efficiency and effectiveness (Portland BES).</p>

	<p>Aquatic life criteria that are up to date with the latest science and with EPA recommendations, to the extent warranted.</p>	<p>Supports this as a high priority project and the allocation of resources to work on this project. Suggests focusing on aluminum and cadmium aquatic life criteria before other toxics. (NWPPA).</p> <p>Agrees that the projects prioritized as "high" would have significant administrative and/or environmental value and supports DEQ's allocation of resources to work on these projects. Emphasizes the use of bioavailable aluminum method where appropriate (ACWA).</p> <p>Supports adoption of new aquatic life toxics criteria, emphasizing that nonylphenol is a common contaminant (CR, NEDC).</p> <p>Urges DEQ to be discerning if adopting aquatic life criteria for toxics. Particularly, DEQ should not exceed EPA recommended stringency for these chemicals. Further, recommends DEQ keep in mind aluminum bioavailability when deciding whether to adopt aquatic life aluminum standard (OFB, OFIC, OFS, OWRC).</p>
<p>Toxics - narrative criterion OAR 340-041-0033</p>	<p>Review and update procedures to apply Oregon's narrative toxics criterion (i.e. Internal Management Directive). Evaluate how Whole Effluent Toxicity testing is working for the permitting program. Consider whether it would be appropriate to use other methods or other published benchmarks.</p> <p>The ability to regulate toxic pollutants of concern that have no Clean Water Act numeric criteria.</p>	<p>Strongly support the development of application procedures for the toxics narrative criterion. Urges DEQ to include emerging pollutants when developing such procedures (NWEA).</p> <p>Supports DEQ systematically translating narrative criteria, using the latest science in updating approaches (EPA Region 10).</p> <p>Encourages DEQ to address PFAS contamination now, supporting the translation of the toxics narrative criteria to a numeric limit (using Colorado as a case study) (DC).</p> <p>Agrees that this project will have substantial environmental or administrative value for permitting efficiency and effectiveness (Portland BES).</p> <p>Supports DEQs development of procedures to translate narrative toxics criteria, citing persistent bioaccumulative chemicals as a particular concern (CRITFC).</p> <p>Supports this as a high priority project and the allocation of resources to work on this project (NWPPA).</p> <p>Agrees that the projects prioritized as "high" would have significant administrative and/or environmental value and supports DEQ's allocation of resources to work on these projects. Particularly supportive of the development of procedures for narrative criteria (ACWA).</p> <p>Strongly urges DEQ to move the development of narrative toxics criterion procedures to the top of the high priority list (CR, NEDC).</p> <p>Supports narrative toxics procedure development as a high priority project, citing persistent bioaccumulative chemicals as human health issues that may be addressed through this effort (CTUIR).</p>

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		<p>Does not support development of narrative toxics criterion as a priority because of a lack of detail provided regarding intent and methods that will be used to create procedures. Concerned about the development of benchmarks in lieu of or beyond the federal standards and the subsequent impact on the regulated community. Requests that the project be described more completely and included in a future Triennial Review (OFB, OFIC, OFS, OWRC).</p>
<p>Biocriteria OAR 340-041-0011</p>	<p>Evaluate the potential to more fully use biocriteria. Develop procedures to apply and implement the narrative biocriteria. Consider how the biocriteria could complement other criteria, such as excessive algal growth and sedimentation, and how to develop stressor identification tools.</p> <p>Clear procedures that enable DEQ to more fully use biocriteria and biological assessment methods in our programs.</p>	<p>Supports DEQ systematically translating narrative criteria, using the latest science in updating approaches (EPA Region 10).</p> <p>Agrees that this project will have substantial environmental or administrative value for permitting efficiency and effectiveness (Portland BES).</p> <p>Supports this as a high priority project and the allocation of resources to work on this project. (NWPPA).</p> <p>Supports developing narrative biocriteria as a high priority to develop science-based, clear, and transparent procedures to implement the narrative criteria. This will enable DEQ to develop limits in future permit renewals with a consistent policy framework and methods that consider all relevant local/regional data needed to establish limits that are protective of beneficial uses. Concerned about overly stringent effluent limits based on narrative biocriteria (ACWA).</p> <p>Supports developing narrative biocriteria as a third-ranked high priority project, with a particular focus on developing biocriteria procedures that would be capable of assessing marine waters for ocean acidification and hypoxia (ODFW, DLCD).</p> <p>Urge DEQ to prioritize biocriteria, but not in the way stated in the Draft Water Quality Standards Project Priorities for Public Comment. DEQ should not develop tools to use the existing water quality standard more widely. Instead, it should revise the water quality standard comprehensively, engaging with stakeholders, updating the Assessment Tool, modifying the standard so our members can understand the causes of a 303(d) listing for biocriteria, and creating a delisting criterion (OFB, OFIC, OFS, OWRC).</p>
<p>Excessive Aquatic Plant and Algal Growth and Nuisance Phytoplankton Growth OAR 340-041-0007, OAR 340-041-0019</p>	<p>A phased, integrated approach for dealing with excessive aquatic plant and algae growth and eutrophication. This approach should include clear and consistent procedures to apply the excessive algal growth narrative criterion and chlorophyll-a action value together with the numeric pH and dissolved oxygen criteria</p> <p>Targeted control of nutrient pollution where it is degrading water quality.</p>	<p>Support work on Excessive Aquatic Plant and Algal Growth and Nuisance Phytoplankton Growth. Set standards for nutrient loading and require nutrient and bacteria monitoring on national forest lands where livestock graze (GRP).</p> <p>Support work on Excessive Aquatic Plant and Algal Growth and Nuisance Phytoplankton Growth. Recommends replacing the chlorophyll-a action value with a criterion, and adopting nutrient criteria (NWEA).</p> <p>Supports DEQ systematically translating narrative criteria, using the latest science in updating approaches (EPA Region 10).</p>

		<p>Agrees that this project will have substantial environmental or administrative value for permitting efficiency and effectiveness (Portland BES).</p> <p>Supportive of this project. Recommends establishing numeric nutrient criteria and clear procedures for implementing algal growth criteria as a high priority, elevating these two "medium" priority projects to be included with this one (CRITFC).</p> <p>Supports this as a high priority project and the allocation of resources to work on this project (NWPPA).</p> <p>Supports developing narrative criteria as a high priority and agrees that this project would have significant administrative and/or environmental value (ACWA).</p> <p>Commenters support establishing numeric nutrient criteria for priority waterbodies and developing procedures to apply the narrative criteria. DEQ should evaluate replacing the current "action value" for chlorophyll-a with an actual criterion, and adopt nutrient criteria (CR, NEDC).</p> <p>Recommends establishing numeric nutrient criteria and clear procedures for implementing algal growth criteria as a high priority, elevating these two "medium" priority projects to be included with this high priority (CTUIR).</p> <p>Supports Excessive Aquatic Plant and Algal Growth and Nuisance Phytoplankton Growth as a high priority, but urges DEQ to elevate Numeric Nutrient Criteria, revisions to pH, and Algae-HABs to a "high" priority status as well and pursuing all four projects as one singular project because these projects are heavily linked (DRA).</p> <p>Have considerable concern about DEQ using such a broad narrative criteria as the basis for developing procedures to apply that criteria to prevent excessive algal growth. Do not support this as a "high" priority. If undertaken, urge DEQ to write a careful set of procedures to focus on harmful algal blooms that present a public health threat (not all naturally-occurring blooms) (OFB, OFIC, OFS, OWRC).</p>
<p>Sedimentation OAR 40-041-0007 (11)</p>	<p>Build on current knowledge and experience to develop methodologies and procedures to apply the narrative criterion pertaining to suspended and bedded sediment.</p> <p>Improved ability to prevent or remedy the impacts of sediment on threatened and endangered salmon and steelhead and other native biota and to protect healthy functioning streams.</p>	<p>Recommends setting standards to reduce bank trampling at headwaters as a means to reduce sedimentation (GRP).</p> <p>Recommends adding detail regarding the driver that demonstrates why the sedimentation narrative criterion is ineffective (NWEA).</p> <p>Supports DEQ systematically translating narrative criteria, using the latest science in updating approaches (EPA Region 10).</p> <p>Agrees that this project will have substantial environmental or administrative value for permitting efficiency and effectiveness (Portland BES).</p>

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		<p>Does not support developing sedimentation narrative criteria as a "high" priority project, due to a lack of external drivers and significant staff resources required. Recommends moving to medium or low priority (NWPPA).</p> <p>Supports developing narrative criteria as a high priority and agrees that this project would have significant administrative and/or environmental value (ACWA).</p> <p>Commenters recommend that DEQ prioritize development of sediment narrative procedures, citing benefit to salmonids which are susceptible to habitat degradation caused by sedimentation (CR, NEDC).</p> <p>Strongly urges DEQ not to move forward with its sedimentation review, and to move to a lower priority in favor of other work. If project proceeds, urges DEQ to develop scientifically appropriate benchmarks taking into account environmental variability (OFB, OFIC, OFS, OWRC).</p>
DEQ's Medium Priority Projects	Project Scope and Outcome	Summary Comments Received
<p>Ocean acidification OAR 340-041-0021</p>	<p>Revise or adopt criteria to protect aquatic life from ocean acidification</p> <p>Better ability to assess coastal water conditions for ocean acidification.</p>	<p>Assessment of ocean acidification and dissolved oxygen in marine waters and their effect on aquatic life should be classified as high priority projects under ODEQ's tiered criteria (CRITFC).</p> <p>Encourage DEQ to include updated ocean acidification criteria as a "high priority" item for this year's review. Highlights the relationship between several WQS proposed projects and OA, including pH and biocriteria (CBD).</p> <p>Concerned about marine ecosystem and ocean conditions, supports DEQ's work on OA (CTUIR).</p> <p>Recommends DEQ take on OA as the second highest ranked "high" priority project. Recommend include aragonite saturation as a metric for OA and identifying biologically relevant criteria and standards for ocean acidification for marine waters (ODFW, DLCD).</p>
<p>Dissolved Oxygen - marine water, numeric criteria OAR 340-041-0016</p>	<p>Consider DO numeric criteria for marine waters to address ocean hypoxia.</p> <p>New marine criteria for DO.</p>	<p>Assessment of ocean acidification and dissolved oxygen in marine waters and their effect on aquatic life should be classified as high priority projects under ODEQ's tiered criteria (CRITFC).</p> <p>Further assessment of ocean acidification and dissolved oxygen in marine waters and their effects on aquatic life, in particular, should be part of ODEQ's future work (CTUIR).</p> <p>Recommends elevating re-evaluating marine water dissolved oxygen criteria to become the first-ranked high priority project. Cites commonly used marine thresholds as support for altering criteria (ODFW, DLCD).</p>

<p>Numeric Nutrient Criteria – for priority waterbodies</p>	<p>In a phased approach, DEQ may establish numeric nutrient criteria for priority waterbodies in addition to developing procedures to apply the narrative criteria.</p> <p>Site specific numeric nitrogen or phosphorus criteria for sensitive waterbodies.</p>	<p>Strongly recommends that DEQ take additional steps to address nitrogen and phosphorus pollution either through the systematic implementation of narrative criteria or through adoption of numeric nutrient criteria for priority waterbodies (EPA Region 10).</p> <p>Recommends moving numeric nutrient criteria to the highest priority level, noting that algal blooms are a result of many different factors that are unlikely to be completely addressed by implementation of narrative criteria alone (CRITFC).</p> <p>Commenters support establishing numeric nutrient criteria for priority waterbodies and developing procedures to apply the narrative criteria. DEQ should evaluate replacing the current “action value” for chlorophyll-a with an actual criterion, and adopt nutrient criteria (CR, NEDC).</p> <p>Narrative criteria alone may not be adequate to deal with the problem; numeric nutrient criteria may be necessary, and procedures for implementing algal growth criteria (CTUIR).</p> <p>Supports Excessive Aquatic Plant and Algal Growth and Nuisance Phytoplankton Growth as a high priority, but urges DEQ to elevate Numeric Nutrient Criteria, revisions to pH, and Algae-HABs to a "high" priority status as well and pursuing all four projects as one singular project because these projects are heavily linked (DRA).</p> <p>Little information is provided on this project, and it is unclear whether DEQ has specific water bodies in mind. Numeric nutrient criteria would be in addition to narrative criteria related to aquatic plants, algal growth, and nuisance phytoplankton growth. We do not recommend moving forward with this update at this time because the narrative criteria are subjective for water bodies without TMDLs, and regulations stipulate that TMDLs should be created for water bodies that need them. Thus, this potential project is an unnecessary use of DEQ resources (OFB, OFIC, OFS, OWRC).</p>
<p>Toxics - human health criteria                  OAR 340-041-0033</p>	<p>Do a thorough review of EPA’s criteria to determine whether Oregon is addressing all the human health criteria recommended by EPA.</p> <p>Review detailing the discrepancies between EPA recommended criteria and Oregon criteria.</p>	<p>Supports DEQ undertaking this project. The fish consumption rate used by Oregon will only be protective of high fish-consuming populations, including tribes, if it is based on the latest scientific information (CRITFC).</p>
<p>Designated Use - public water supply, constructed waterways                  Beneficial use rule for each basin in                  OAR 340-041-0101 to OAR 340-041-0340.</p>	<p>Drinking water supply use designation review and corrections. Drinking water use is designated for many waters of the state that are not used for domestic water supply.</p>	<p>Supports DEQ’s proposed project to correct designated uses for constructed waterways, such as irrigation canals and drainage ditches and supports the inclusion of this as a second-tier priority project. Requests notification if project is undertaken by DEQ (EPID).</p> <p>Strongly support DEQ moving forward with the project that will correct designated uses for constructed waterways (e.g., canals and irrigation ditches) and recommend DEQ make this a high priority item in 2021-2024. This project should be prioritized ahead of newly identified</p>

	<p>Correct designated uses for constructed waterways, such as irrigation canals and drainage ditches.</p> <p>Revised use designations where appropriate and scientifically supported, which will clarify where certain criteria do and do not apply</p>	<p>projects to update toxics criteria or create methodologies for application of narrative criteria (OFB, OFIC, OFS, OWRC).</p> <p>We are very supportive of correcting use designations that have been erroneously applied to district infrastructure or otherwise lack scientific validity. Encourage DEQ to be flexible and address the medium priorities as opportunities arise. In particular, possibly when DEQ is updating variance procedures (high priority) (OWRC).</p>
pH OAR 340-041-0021	<p>Revise the pH criteria for the Crooked River, Columbia River, and some coastal basins.</p> <p>Criteria that are protective of uses in the waterbody and are reflective of basin characteristics.</p>	<p>Supports Excessive Aquatic Plant and Algal Growth and Nuisance Phytoplankton Growth as a high priority, but urges DEQ to elevate Numeric Nutrient Criteria, revisions to pH, and Algae-HABs to a "high" priority status as well and pursuing all four projects as one singular project because these projects are heavily linked (DRA).</p> <p>In 2021-2024, it should be prioritized ahead of new projects identified to revise toxics criteria and develop methodologies for narrative criteria, particularly given the fact that some criteria, such as aluminum, are pH dependent (OFB, OFIC, OFS, OWRC).</p>
Antidegradation OAR 340-041-0004	<p>Revise antidegradation implementation procedures.</p> <p>Clear implementation procedures.</p>	<p>Recommends a method for implementing Tier I of the antidegradation policy including, in particular, a way in which DEQ can accept public and public agency input in an ongoing fashion on existing uses that are not designated (NWEA).</p> <p>Supports moving updating the antidegradation policy to a "high" priority. DEQ is required to have implementation methods that apply to all waters, not just point sources exclusively as DEQ's most recent memorandum (2014) (CR, NEDC).</p>
Temperature OAR 340-041-0028	<p>Address the disapproval of the natural conditions criterion contained in the temperature standard. Clarify how the "human use allowance" is calculated and the function of biologically based numeric criteria. Possibly add a "seasonal cold water" aquatic life use sub category and criteria in the temperature rule.</p> <p>Statewide or site specific revisions to the temperature standard that protect uses, are scientifically credible, and can be implemented efficiently</p>	<p>Request that DEQ retain the "high" priority designation for resolving the temperature standard assigned during the previous triennial review process, citing uncertainty for permit NPDES permit holders and the ineffectiveness of using temperature variances to restore cold water functions and beneficial uses (ACWA).</p> <p>Recommends temperature standard evaluation ranked as the fourth highest priority item for Triennial Review, citing concerns over health of anadromous species in Oregon in both freshwater and marine environments (ODFW and DLCDC).</p> <p>Strongly encourage DEQ to prioritize resolving the issues around attainability of standards due to natural conditions. If some less stringent number is protective of the designated use, then we would encourage the agency to consider revising the relevant biologically based numeric criterion (OFB, OFIC, OFS, OWRC).</p>
Drinking water OAR 340-041-0033	<p>Review whether additional water quality criteria are needed to protect drinking water supply use, such as turbidity, total dissolved solids or toxics criteria.</p>	<p>Does not support time and resource investment into developing separate standards for drinking water sources when the existing standards are already designed to protect the most sensitive uses on the system (OFB, OFIC, OFS, OWRC).</p>

	Gap analysis and identify whether additional criteria or criteria revisions are needed to protect drinking water source waters.	
Use Attainability Analysis procedures	<p>Develop clear and efficient procedures for completing analyses. Review and update DEQ's procedures.</p> <p>Working with EPA, develop clear and efficient procedures for both DEQ and EPA to improve the use of this tool where it is appropriate.</p>	<p>Strongly support DEQ moving forward with completing use attainability analyses, and view this as closely related to the natural conditions criteria. Include "naturally impaired" use designations (OFB, OFIC, OFS, OWRC).</p> <p>Encouraged that DEQ has included "Use Attainability Analysis procedures" as a medium priority project and proposes to develop clear and efficient procedures for completing such analyses. Encourage DEQ address this medium priority as opportunities arise, potentially during variance procedure work (OWRC).</p>
Wetlands	<p>Wetlands criteria development or guidance on application of existing criteria.</p> <p>Improved ability to protect wetlands water quality, identify whether wetland specific criteria are needed.</p>	<p>DEQ should elevate the priority of developing wetland criteria and guidance to 'high'. As noted in the priority list description, Oregon lacks wetland specific criteria or guidance for how to apply current criteria to wetlands. This is a substantial gap that limits the ability to protect these unique and important ecosystems (Portland BES).</p> <p>Acknowledges DEQ's concern about resources required for a full-blown wetland standards development process. At the same time, Commenters proposal responds to the on-the-ground reality that wetlands are under threat and vital to Oregon's economy, environment, and resilience in the age of climate change. Specifically, Commenters recommend that DEQ focus on: (1) the use of Tier I antidegradation to protect existing uses, and (2) implementation of the aquatic life designated use, particularly for CWA § 401 certifications (CR, NEDC).</p> <p>Encourage DEQ not to take on this complex and low benefit project that will cause considerable friction with existing non-point source programs (OFB, OFIC, OFS, OWRC).</p>
Outstanding Resource Waters OAR 340-041-0004	<p>Develop screening criteria and nominate waters for Outstanding Resource Waters designation.</p> <p>Clear screening criteria and a process to standardize nomination and designation.</p>	<p>Concerned that ORW designations can be used to create new water quality regulations to prohibit routine activities by our members in certain areas. Support a project to develop an unambiguous process for nomination and evaluation of potential ORWs in Oregon. Should be prioritized above the toxics criteria and methodologies for narrative criteria presently listed as highest priority projects for 2021-2024(OFB, OFIC, OFS, OWRC).</p>
Nuisance phytoplankton growth in estuarine waters OAR 340-041-0019	<p>Add a chlorophyll-a action value or other indicators of excessive plant or phytoplankton growth for estuarine waters. Because this is an action value, not a criterion, it does not need to be adopted by rule. It could be included in procedures to apply the narrative algal growth criterion.</p> <p>New chlorophyll-a action value or other indicator of excessive plant or</p>	<p>Does not support expending DEQ time and resources on the development of a chlorophyll-a action value for estuaries ahead of other water quality standards work (OFB, OFIC, OFS, OWRC).</p>

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	phytoplankton growth in estuarine waters.	
Lakes criteria procedures document for pH, temperature, dissolved oxygen	Develop a directive or procedures for interpreting and applying these criteria in lakes.  Directive or procedures document for interpreting lakes criteria.	Does not support expending DEQ time and resources on development of lake criteria procedures ahead of other water quality standards work (OFB, OFIC, OFS, OWRC).
<b>DEQ's Low Priority Projects</b>	<b>Project Scope and Outcome</b>	<b>Summary Comments Received</b>
Natural conditions criteria OAR-340-041-0007 (2)	Method to efficiently address situations where criteria are not attainable due to natural conditions.  An efficient and scientifically appropriate method to assess naturally occurring conditions and establish appropriate water quality objectives. This would allow the state to target pollution control and restoration resources to areas with the need and potential for improvement.	DEQ should prioritize a careful consideration of situations where natural conditions protect uses or where criteria are not attainable due to natural conditions as one of its highest priority items (OFB, OFIC, OFS, OWRC).
Algae - harmful algal blooms OAR 340-041-0007	Method to efficiently address situations where criteria are not attainable due to natural conditions  An efficient and scientifically appropriate method to assess naturally occurring conditions and establish appropriate water quality objectives. This would allow the state to target pollution control and restoration resources to areas with the need and potential for improvement.	Although narrative criterion may exist to address the problem, the issue is not likely to improve without establishing numeric nutrient criteria and clear procedures for implementing algal growth criteria. We recommend moving this issue to the highest priority level (CRITFC).  Narrative criteria alone may not be adequate to deal with the problem; numeric nutrient criteria may be necessary, and procedures for implementing algal growth criteria (CTUIR).  Supports Excessive Aquatic Plant and Algal Growth and Nuisance Phytoplankton Growth as a high priority, but urges DEQ to elevate Numeric Nutrient Criteria, revisions to pH, and Algae-HABs to a "high" priority status as well and pursuing all four projects as one singular project because these projects are heavily linked (DRA).  While our members would be interested following Algae - harmful algal bloom as a low priority project, we do support them being designated as lower priority by the agency (OFB, OFIC, OFS, OWRC).
Total dissolved solids OAR 340-041-0032	Review and update the total dissolved solids criteria.	Supports this project as a low priority (OFB, OFIC, OFS, OWRC).

	Implementation procedures regarding these "guide values," or update criteria based on new science.	
Turbidity - criteria (see implementation above) OAR 340-041-0036	<p>Revise turbidity criteria to ensure protection of beneficial uses (fish and wildlife and drinking water) and to resolve the issue of how to apply the criteria at low levels.</p> <p>Criteria that reflect the best available science on the impacts of turbidity on designated uses. Improved ability to apply turbidity criteria in Clean Water Act programs</p>	Supports this project as a low priority (OFB, OFIC, OFS, OWRC).
Toxics - Per- and Polyfluoroalkyl Substances OAR 340-041-0033	<p>Consider adopting statewide criteria for PFAS.</p> <p>Statewide criteria for PFAS or specific substances with impacts to beneficial uses</p>	<p>Encourages DEQ to adopt numeric water quality criteria for PFAs, citing the long timeline associated with EPA releasing criteria and questioning the effectiveness of those potential criteria levels (DC).</p> <p>While our members would be interested in statewide criteria for perfluorinated alkyl substances as a low priority project, we do support them being designated as lower priority by the agency (OFB, OFIC, OFS, OWRC)).</p>
<b>New Projects Suggested from External Review</b>	<b>Project Scope and Outcome</b>	<b>Summary Comments Received</b>
New Project: Columbia and Lower Snake Rivers Temperature TMDL implementation	<p>Address Oregon's implementation of EPA's Columbia and Lower Snake Rivers Temperature (TMDL).</p> <p>Identify additional measures that can be taken to minimize the thermal load that Oregon delivers to the mainstem Columbia and Lower Snake Rivers</p>	<p>The priority list should be amended to include actions that address Oregon's implementation of EPA's Columbia and Lower Snake Rivers Temperature (TMDL) given that the TMDL is failing to meet temperature standards. ODEQ should identify additional measures that can be taken to minimize the thermal load that Oregon delivers to the mainstem Columbia and Lower Snake Rivers (CRITFC).</p> <p>The high priority list should be amended to include actions that address Oregon's implementation of EPA's Columbia and Lower Snake Rivers Temperature (TMDL) (CR, NEDC, CTUIR).</p>
New Project: Mixing Zones	<p>Reform Oregon's mixing zone rules and clarify implementation procedures.</p> <p>Clarified implementation procedures and rule revision to account for specific instances in which mixing zones are inappropriate.</p>	<p>Strongly urges DEQ to revise mixing zone rules in the interest of clarifying places where and in which cases mixing zones are not allowed in order to protect the public and wildlife. Recommends this project as a high priority (NWEA).</p> <p>Commenters urge DEQ to revisit the agency's mixing zone regulations and internal management directive ("IMD") to ensure the agency's current policies reduce persistent bioaccumulative toxic pollutants and protect water quality (CR, NEDC).</p>

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Notes: ACWA – Oregon Association of Clean Water Agencies; CBD – Center for Biological Diversity; CTUIR – Confederated Tribes of the Umatilla Indian Reservation; CR – Columbia Riverkeeper; CRITFC – Columbia River Inter-Tribal Fish Commission; DC – Doris Cellarius (Individual); DLCD – Department of Land Conservation and Development; DRA - Deschutes River Alliance; EPA Region 10 – U.S. Environmental Protection Agency, Region 10; EPID – Eagle Point Irrigation District; GRP – Grazing Reform Project; MFID – Middle Fork Irrigation District; NEDC - Northwest Environmental Defense Center; NWEA – Northwest environmental Advocates; NWPPA – Northwest Pulp & Paper Association; ODFW – Oregon Department of Fish and Wildlife; OFB – Oregon Farm Bureau; OFIC – Oregon Forest & Industries Council; OFS – Oregonians for Food & Shelter; OWRC – Oregon Water Resources Congress; Portland BES – City of Portland Bureau of Environmental Services; PWB – Portland Water Bureau;’

# Appendix D - Water Quality Standards Project Needs Considered in Public Review

Table D-1: Draft Highest Priority Projects for Public Input

<b>Designated Use - Fish and Aquatic Life Subcategories for Temperature - In Progress</b> Beneficial use rule for each basin in OAR 340-041-0101 to OAR 340-041-0340		
<b>Problem</b>	<b>Project Scope and Outcome</b>	<b>DEQ's Reason for High Priority</b>
Aquatic life use designations have not been updated since 2003 and may not reflect current information.	Adopt clear and appropriate aquatic life use designations based on the best available data, primarily from the Oregon Department of Fish and Wildlife. Designate additional bull trout habitat as requested by the US Fish & Wildlife Service and remove reaches that are not bull trout habitat according to data from USFWS and ODFW. Update interior basin resident trout use designations.	High administrative and environmental value that will allow for DEQ to apply the correct water quality criteria to protect aquatic life.  This project was identified as a high priority during the 2017 triennial review. DEQ has initiated the project and expects to complete it by summer 2022.

<b>Designated Use - Aquatic Life Subcategories for Dissolved Oxygen - In Progress</b> OAR 340-041-0016		
<b>Problem</b>	<b>Project Scope and Outcome</b>	<b>DEQ's Reason for High Priority</b>
The location and timing of the aquatic life use subcategories used in the dissolved oxygen standard have not been designated in rule. DEQ currently relies on an ecoregional approach and spawning dates outlined in an implementation memo to EPA.  The rules do not specify where "active resident trout spawning areas" are located or when spawning and egg incubation occurs. The rules also do not identify where the cold, cool and warm water aquatic life subcategories occur.	Adopt clear and appropriate aquatic life use designations based on the best available data.  Specify where and when resident trout spawning is a designated use. Identify where cold, cool and warm water aquatic life communities occur.  Because there are still data limitations, the uses may be identified by map or by method. The method-based approach would incorporate site specific data when it becomes available or is updated.	This project was identified as a priority during the 2017 triennial review. DEQ has initiated the project and expects to complete it by summer 2022.  It will ensure that use designations are based on the best available information and will increase certainty regarding where the dissolved oxygen criteria apply. This will enable DEQ and regulated parties to implement the dissolved oxygen standard more accurately and consistently.  This project is rated as high in urgency because EPA requested that DEQ designate the use subcategories in rule prior to the next water quality assessment cycle.

<b>Variance Procedures - In Progress</b> OAR 340-041-0059		
<b>Problem</b>	<b>Project Scope and Outcome</b>	<b>DEQ's Reason for High Priority</b>
<p>The current Variance Internal Management Directive does not reflect Oregon's variance rule updates from 2020 or EPA regulations promulgated in 2015.</p> <p>Variations are a Clean Water Act tool available for National Pollution Discharge Elimination System permits and 401 certifications when the water quality standard is not feasibly attainable for a defined time period.</p>	<p>The directive needs to be updated to reflect current state and federal regulations and guidance.</p> <p>Clear implementation procedures will support the use of variances where they are appropriate.</p>	<p>High administrative value because DEQ anticipates that there will be a need for variances in order to issue permits.</p> <p>This was identified as priority work in the 2017 triennial review. DEQ has initiated the project, but work will continue through 2021.</p>

<b>Temperature Variances - In Progress</b> OAR 340-041-0028, OAR 340-041-0059		
<b>Problem</b>	<b>Project Scope and Outcome</b>	<b>DEQ's Reason for High Priority</b>
<p>The biologically-based temperature criteria are colder than what can be achieved in multiple locations around the state. Therefore, DEQ expects some dischargers will need to obtain a variance.</p>	<p>Variances for dischargers who cannot feasibly meet permit limits based on the current temperature criteria.</p>	<p>This project has high administrative value and urgency because it will allow DEQ to issue permits, with conditions, for dischargers who cannot achieve permit limits based on the temperature standard.</p> <p>This project is a continuation of variance work identified as a high priority in the 2017 triennial review. DEQ expects to complete preparatory work in 2021. No permittee has applied for a temperature variance to date.</p>

<b>Toxics - aquatic life criteria</b> OAR 340-041-0033		
<b>Problem</b>	<b>Project Scope and Outcome</b>	<b>DEQ's Reason for High Priority</b>
<p>EPA has published new or updated aquatic life criteria recommendations that DEQ has not yet adopted. In addition, EPA promulgated aluminum and acute cadmium criteria for Oregon.</p>	<p>Update Oregon's aquatic life criteria, considering EPA recommendations for acrolein, carbaryl, diazinon, nonylphenol and selenium. Adopt the criteria into state rule to replace the federally promulgated aluminum and acute cadmium criteria.</p> <p>Aquatic life criteria that are up to date with the latest science and with EPA recommendations, to the extent warranted.</p>	<p>High environmental value by adopting new and updated aquatic life toxics criteria. The new criteria will help DEQ limit or prevent discharges and runoff of these pollutants to Oregon waters.</p> <p>While analysis of available data indicates that some of these pollutants are not widely found in Oregon waters or regulated discharges, some are found in ambient waters at levels of concern.</p>

<b>Toxics - narrative criterion</b> OAR 340-041-0033		
<b>Problem</b>	<b>Project Scope and Outcome</b>	<b>DEQ's Reason for High Priority</b>
EPA has not developed numeric criteria recommendations for all the new and varied toxic substances in use. Developing more specific procedures to implement the narrative toxics criterion may provide an opportunity to protect beneficial uses from toxic substances for which DEQ has no numeric criteria. Some of these are referred to as pollutants of emerging concern.	Review and update procedures to apply Oregon's narrative toxics criterion (i.e. Internal Management Directive). Evaluate how Whole Effluent Toxicity testing is working for the permitting program. Consider whether it would be appropriate to use other methods or other published benchmarks.  The ability to regulate toxic pollutants of concern that have no Clean Water Act numeric criteria.	Potential for high ecological and human health value by allowing DEQ to regulate toxic pollutants of concern that have no numeric criteria.  High administrative value for permitting efficiency and effectiveness by providing clear procedures.

<b>Biocriteria</b> OAR 340-041-0011		
<b>Problem</b>	<b>Project Scope and Outcome</b>	<b>DEQ's Reason for High Priority</b>
The narrative biocriteria criterion could be more fully used to understand where impacts to beneficial uses are occurring. Better methods for the stressor identification process are needed. Also, the biocriteria narrative criterion is currently not applicable to all waterbodies.	Evaluate the potential to more fully use biocriteria. Develop procedures to apply and implement the narrative biocriteria. Consider how the biocriteria could complement other criteria, such as excessive algal growth and sedimentation, and how to develop stressor identification tools.  Clear procedures that enable DEQ to more fully use biocriteria and biological assessment methods in our programs.	High environmental value through aquatic life protection. This will allow DEQ to consistently apply the existing narrative criterion.

<b>Excessive Aquatic Plant and Algal Growth and Nuisance Phytoplankton Growth</b> OAR 340-041-0007, OAR 340-041-0019		
<b>Problem</b>	<b>Project Scope and Outcome</b>	<b>DEQ's Reason for High Priority</b>
DEQ does not have documented procedures to apply these narrative criteria. Total Maximum Daily Loads can identify the pollutants causing dissolved oxygen, pH or chlorophyll-a exceedances. However, there may be a need to control nutrient loading prior to the completion of a TMDL.	A phased, integrated approach for dealing with excessive aquatic plant and algae growth and eutrophication. This approach should include clear and consistent procedures to apply the excessive algal growth narrative criterion and chlorophyll-a action value together with the numeric pH and dissolved oxygen criteria  Targeted control of nutrient pollution where it is degrading water quality.	This would help DEQ address excessive algal growth and nutrient loading with current rules.  High environmental and administrative value for waterbodies where the water quality impacts from nutrient loading could be reduced or mitigated.

<b>Sedimentation</b> OAR 40-041-0007 (11)		
<b>Problem</b>	<b>Project Scope and Outcome</b>	<b>DEQ's Reason for High Priority</b>
<p>DEQ does not have documented procedures to apply this narrative criterion. Therefore, there has been limited and inconsistent implementation. However, stream substrate is an important feature of salmonid spawning habitats, including Endangered Species Act listed species. Sediment transport and dynamics are a variable but critical element of a properly functioning stream and floodplain. The importance is heightened by recent wildfires, which may lead to increased inputs of sediment.</p>	<p>Build on current knowledge and experience to develop methodologies and procedures to apply the narrative criterion pertaining to suspended and bedded sediment.</p> <p>Improved ability to prevent or remedy the impacts of sediment on threatened and endangered salmon and steelhead and other native biota and to protect healthy functioning streams.</p>	<p>High environmental value through protection of aquatic life use. However, this would require significant resources from the standards program and other DEQ staff.</p> <p>There are no external drivers or pending actions creating urgency for this project. But it has been a need that has gone unaddressed for a long time. DEQ staff expect that there are now methods and metrics that could be used to apply this criterion in a scientifically credible and appropriate manner.</p>

**Table D-2: Draft Second Tier Priority Projects for Public Input**

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	Overall Priority (H/M/L)	DEQ Reasoning for Priority
Ocean acidification OAR 340-041-0021	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 coastal water conditions for ocean acidification.	Medium	Ocean acidification is an important issue, but it is not clear whether there is sufficient data to establish appropriate criteria. Assist the assessment program with a methodology using current criteria and conduct background work to determine whether to establish new criteria.
Dissolved Oxygen - marine water, numeric criteria OAR 340-041-0016	Consider DO numeric criteria for marine waters to address ocean hypoxia.	The current narrative standard is difficult to apply. First identify procedures to apply the current criterion. Then consider whether the marine DO standard needs to be revised through rulemaking.	New marine criteria for DO.	Medium	EPA only has nationally-recommended numeric criteria specific to a region on the east coast of the U.S. It would be very challenging to develop numeric DO criteria for marine waters given the seasonal and long term variations in upwelling and currents.
Numeric Nutrient Criteria – for priority waterbodies	In a phased approach, DEQ may establish numeric nutrient criteria for priority waterbodies in addition to developing procedures to apply the narrative criteria.	Consider adopting site specific numeric nutrient criteria for priority waterbodies.	Site specific numeric nitrogen or phosphorus criteria for sensitive waterbodies.	Medium	DEQ can assess waterbodies for aquatic plant and algae or eutrophication problems based on the narrative criterion, chlorophyll-a action level and pH and dissolved oxygen criteria. DEQ does not permit discharges directly into lakes or reservoirs. However, there are discharges to other water bodies that may need to be controlled to protect uses.
Toxics - human health criteria OAR 340-041-0033	Do a thorough review of EPA's criteria to determine whether Oregon is addressing all the human health criteria recommended by EPA.	Oregon last updated the human health criteria in 2011. EPA may have published new criteria recommendations since that time. However, Oregon criteria are based on a higher fish consumption rate and are likely, therefore, to still be protective.	Review detailing the discrepancies between EPA recommended criteria and Oregon criteria.	Medium	This project has value for understanding how Oregon criteria compare with EPA's recommendations and would require a moderate amount of effort.

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	Overall Priority (H/M/L)	DEQ Reasoning for Priority
<p>Designated Use - public water supply, constructed waterways</p> <p>Beneficial use rule for each basin in OAR 340-041-0101 to OAR 340-041-0340.</p>	<p>Drinking water supply use designation review and corrections. Drinking water use is designated for many waters of the state that are not used for domestic water supply.</p> <p>Correct designated uses for constructed waterways, such as irrigation canals and drainage ditches.</p>	<p>Some waters have legacy use designations from the basin approach that do not reflect existing uses and may not be appropriate or attainable. These use designations may be scientifically incorrect and may be perceived by stakeholders as inappropriate goals for the waterbody.</p>	<p>Revised use designations where appropriate and scientifically supported, which will clarify where certain criteria do and do not apply.</p>	<p>Medium</p>	<p>Correcting the uses for some irrigation canals will improve the accuracy of Oregon's use designations and affect the assessment process. Permitted discharges to these waters are very rare. Use Attainability Analyses may be required. DEQ is not aware of any pending actions that would make this an urgent need, but there is high interest among some stakeholders.</p>
<p>pH</p> <p>OAR 340-041-0021</p>	<p>Revise the pH criteria for the Crooked River, Columbia River, and some coastal basins.</p>	<p>Some pH criteria do not reflect the basin characteristics (i.e. geology, rainfall, buffering capacity, etc.) and range of natural variability in pH.</p>	<p>Criteria that are protective of uses in the waterbody and are reflective of basin characteristics.</p>	<p>Medium</p>	<p>DEQ will soon begin Total Maximum Daily Load work for the Crooked River. Having this criterion corrected would be helpful. If these criteria revisions are packaged with another rulemaking, such as the Aquatic Life Use updates, this project would require little effort.</p>
<p>Turbidity - implementation (see Turbidity - criteria below)</p> <p>OAR 340-041-0036</p>	<p>Turbidity implementation procedures; staff training</p>	<p>In some instances, DEQ has not documented procedures to apply the existing criterion.</p>	<p>Improved ability to use turbidity criterion for Clean Water Act programs</p>	<p>Medium</p>	<p>While this project would provide some ecological and administrative value, DEQ is not aware of actions being impeded by this problem and there are no external deadlines, so this project has low urgency</p>
<p>Antidegradation</p> <p>OAR 340-041-0004</p>	<p>Revise antidegradation implementation procedures.</p>	<p>Oregon's antidegradation implementation procedures were developed in 2001. Since that time, DEQ has revised the policy in rule and added clarifications as addenda to the Internal Management Directive in response to EPA's 2013 review. Permittees and permitting staff rely on the directive, which occasionally leads to incorrect outcomes because it needs updating.</p>	<p>Clear implementation procedures.</p>	<p>Medium</p>	<p>Changes would not have a high environmental value, but clarity may help programmatic needs, especially for discharge permitting and water quality certifications. The antidegradation directive is now 20 years old. It contains incorrect rule citations and doesn't reflect current thinking regarding how DEQ now approaches antidegradation evaluations and implementation.</p>

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	Overall Priority (H/M/L)	DEQ Reasoning for Priority
Temperature OAR 340-041-0028	Address the disapproval of the natural conditions criterion contained in the temperature standard. Clarify how the "human use allowance" is calculated and the function of biologically based numeric criteria. Possibly add a "seasonal cold water" aquatic life use sub category and criteria in the temperature rule.	The temperature standard included several essential components meant to function together. The disapproval of the natural conditions criterion makes the temperature standard unattainable and more stringent than necessary to protect aquatic life uses in some locations. Consider a "seasonal cold water" category for rearing and migration habitat in waterbodies that are cold for part of the year, but cannot attain the biologically based numeric criteria during the warmest weeks even under natural conditions.	Statewide or site specific revisions to the temperature standard that protect uses, are scientifically credible, and can be implemented efficiently.	Medium	DEQ has developed a method for completing approvable Total Maximum Daily Loads under the current standard and will grant variances for National Pollution Discharge Elimination System permit holders who need them. DEQ is using these implementation strategies rather than correct the temperature standard through rulemaking due to level of effort.
Drinking water OAR 340-041-0033	Review whether additional water quality criteria are needed to protect drinking water supply use, such as turbidity, total dissolved solids or toxics criteria.	There are toxic pollutants for which DEQ does not have ambient water quality criteria that could impact drinking source waters. Current turbidity and dissolved solids criteria were not developed based on drinking water protection.	Gap analysis and identify whether additional criteria or criteria revisions are needed to protect drinking water source waters.	Medium	This could be of high value in limited locations. While there is no immediate external driver, urgency may be heightened due to wildfires.  Drinking water protection may also be addressed by developing procedures to apply the narrative toxics criterion (see high priority projects).
Use Attainability Analysis procedures	Develop clear and efficient procedures for completing analyses. Review and update DEQ's procedures.	DEQ's Use Attainability Analysis Internal Management Directive is old and was written before DEQ performed any Use Attainability Analysis. DEQ has now completed one analysis and could draw on that experience and new federal regulations to update the directive to ensure the process is clear, efficient and meets federal requirements. This could build on the work on the variance directive.	Working with EPA, develop clear and efficient procedures for both DEQ and EPA to improve the use of this tool where it is appropriate.	Medium	Analyses and site specific criteria can be adopted if needed without a procedures document. Because to date these have been very rare, a procedures document has less value than it would for procedures applied more frequently.

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	Overall Priority (H/M/L)	DEQ Reasoning for Priority
Wetlands	Wetlands criteria development or guidance on application of existing criteria	The lack of wetland specific criteria or guidance for how to apply current criteria to wetlands makes it more difficult for the water quality certification program to protect wetlands or provide a systematic means for evaluating and protecting the overall health and functioning of wetlands.	Improved ability to protect wetlands water quality, identify whether wetland specific criteria are needed.	Medium	EPA's recommended wetland criteria are narrative, which may not meet the objective of providing added clarity for the program. Rulemaking to adopt wetlands specific criteria could require a high level of effort.
Rule clean up: Treatment criteria, TMDL provisions, WQL waters Rule. OAR 340-041-0007; -0057; -0061 and TMDL rules contained in the basin rules.	Review Division 41 rules to clarify their purpose and consider moving rules that are not water quality standards to other divisions	There are provisions in these rules that are not water quality standards, which creates confusion. Inconsistency and lack of clear language has led to confusion, inconsistency and permit delays.	Rules that are not water quality standards are moved to a more appropriate location within OAR 340, or withdrawn if no longer needed.	Medium	This would have medium administrative value because it may reduce permitting delays. However, permits can still be completed without these clarifications, it just may take additional time.
Outstanding Resource Waters OAR 340-041-0004	Develop screening criteria and nominate waters for Outstanding Resource Waters designation.	To date, DEQ has made ORW designations only in response to citizen petitions. The new approach would implement the outstanding waters rule in Oregon's antidegradation policy and could lead to the nomination of multiple waterbodies for designation	Clear screening criteria and a process to standardize nomination and designation.	Medium	Citizen petitions have been successful. Should DEQ allow the citizen petition process, which saves agency staff resources, to continue, or should the agency establish a process and proactively nominate waters, per the outstanding waters rule?
Nuisance phytoplankton growth in estuarine waters OAR 340-041-0019	Add a chlorophyll-a action value or other indicators of excessive plant or phytoplankton growth for estuarine waters. Because this is an action value, not a criterion, it does not need to be adopted by rule. It could be included in procedures to apply the narrative algal growth criterion.	The current chlorophyll-a guidance value does not adequately represent estuarine conditions.	New chlorophyll-a action value or other indicator of excessive plant or phytoplankton growth in estuarine waters.	Medium	EPA has suggested that DEQ add these action values.

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	Overall Priority (H/M/L)	DEQ Reasoning for Priority
Lakes criteria procedures document for pH, temperature, dissolved oxygen	Develop a directive or procedures for interpreting and applying these criteria in lakes.	Current standards are difficult to apply throughout lake systems, particularly for stratified lakes. Opportunity to clarify the application of criteria to lakes.	Directive or procedures document for interpreting lakes criteria.	Medium	This project has medium administrative value because it would provide a consistent procedure for implementing standards in lakes.
Natural conditions criteria OAR-340-041-0007 (2)	Method to efficiently address situations where criteria are not attainable due to natural conditions.	Oregon's general "natural conditions" criterion and the natural conditions provision in the temperature standard were both disapproved. DEQ would evaluate how to efficiently address situations where a water body can't meet existing criteria due to natural conditions.	An efficient and scientifically appropriate method to assess naturally occurring conditions and establish appropriate water quality objectives. This would allow the state to target pollution control and restoration resources to areas with the need and potential for improvement.	Low	Not a situation that seems to be impacting our programs frequently. Site specific criteria could be an alternative
Algae - harmful algal blooms OAR 340-041-0007	Procedures to implement the narrative algal growth criterion, or revisions to the criterion, to better address harmful algae blooms. Evaluate whether to adopt EPA's recommendations for cyanotoxins as recreational use criteria, or as action values to protect recreation or drinking water source waters.	There is an increasing incidence of harmful algae blooms in the state that impact recreation and human health. EPA has released recommendations for cyanotoxins for recreational uses and in drinking water. DEQ lists waters as impaired using the current narrative criterion.	Clear procedures for implementing the nuisance algal growth criterion, or revisions to the criterion, to address harmful algae blooms.	Low	DEQ can address the issue with current rules; revised criteria will provide limited added benefit. However, better implementation procedures may be helpful. Oregon lists waterbodies as impaired for cyanotoxins once an advisory is issued by Oregon Health Authority. OHA already uses the EPA recommended cyanotoxin levels to issue advisories. Waterbody target parameters and levels to correct or prevent harmful algal blooms are likely to be site specific.
Total dissolved solids OAR 340-041-0032	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 regarding these "guide values," or update criteria based on new science.	Low	DEQ is not aware of an urgent need to address this issue.

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	Overall Priority (H/M/L)	DEQ Reasoning for Priority
Turbidity - criteria (see implementation above)  OAR 340-041-0036	Revise turbidity criteria to ensure protection of beneficial uses (fish and wildlife and drinking water) and to resolve the issue of how to apply the criteria at low levels.	Current criteria are difficult to measure and implement in permitting, TMDL and assessment. Criteria are not explicitly tied to aquatic life impacts. The criteria limits at low turbidity levels are more stringent than necessary to protect aquatic life impacts.	Criteria that reflect the best available science on the impacts of turbidity on designated uses. Improved ability to apply turbidity criteria in Clean Water Act programs	Low	DEQ initiated efforts to revise the standard in 2009 - 2011, but the rulemaking was not completed. Lack of urgency from many DEQ staff and external stakeholders.
Toxics - Per- and Polyfluoroalkyl Substances  OAR 340-041-0033	Consider adopting statewide criteria for PFAS.	Opportunity to address emerging contaminant issue	Statewide criteria for PFAS or specific substances with impacts to beneficial uses	Low	EPA is developing recommended criteria. DEQ would need to invest considerable resources to establish criteria prior to EPA recommendations. It would be more efficient to wait for EPA recommendations.