



Oregon Department of Environmental Quality

2021 Triennial Review

Draft Water Quality Standards Project Priorities for Public Comment

Introduction

The DEQ water quality standards program is conducting a Triennial Review process to review and prioritize work needs. The federal Clean Water Act requires states to periodically review and update water quality standards and hold a public hearing. The Triennial Review will result in a work plan of priority projects that the water quality standards program plans to complete or initiate in 2021-2023 and a report summarizing the comments received and the rationale for the project priorities.

To develop the work plan, DEQ has identified and ranked a preliminary list of water quality standards projects. Projects may include those that incorporate new scientific information, meet federal requirements, clarify standards or improve the application of standards in water quality programs. DEQ considered several factors when assigning preliminary priorities of high, medium or low to potential standards review and revision projects.

Prioritizing projects

Priority ratings were established by reviewing the value, urgency, level of effort and risk to project success for each project. 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 ranked 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 for the work. Level of effort was ranked by staff resources required, 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, 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.

Project tables

The nine high priority projects shown in Table 1 below are described by the issue addressed by each project, the project scope and outcome expected, and the reason for the high priority rating. High priority projects are those considered the highest priority for the water quality standards program to initiate or work on during the next three years. However it is important to note that DEQ will not be able to complete all the high priority projects during this timeframe with the staff resources available.

This document also lists potential water quality standards projects that were rated medium to low (see Table 2). These projects are described by the problem addressed for each project, the project scope, the outcome, and the reasoning for the priority. While they may identify important water quality issues, DEQ considered the high priority projects to be most important to initiate in the near term. The additional work can be considered again during the next triennial review.

Next Steps

Following public comment, DEQ will consider the comments and decide whether to revise the project scope or priorities. DEQ will then develop a 2021-2023 Water Quality Standards Workplan. The Workplan will identify the projects DEQ plans to complete or initiate in 2021 through 2023, given the staff resource available, and will include a schedule of when we expect to initiate and complete each project. Some projects initiated during this timeframe may extend into the following years. DEQ will write a report that summarizes the Triennial Review Process and the public comments received. The Report and Workplan will be provided to EPA and presented to the Environmental Quality Commission.

For all projects, the corresponding Oregon Administrative Rule (OAR) is listed along with the topic, if applicable. The rule language for the listed water quality standards can be found in [Oregon Administrative Rules Chapter 340, Division 41](#).

Table 1: Draft Highest Priority Projects for Public Input

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		
Problem	Project Scope and Outcome	DEQ's Reason for High Priority
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.

Designated Use - Aquatic Life Subcategories for Dissolved Oxygen - In Progress OAR 340-041-0016		
Problem	Project Scope and Outcome	DEQ's Reason for High Priority
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.

Variance Procedures - In Progress

OAR 340-041-0059

Problem	Project Scope and Outcome	DEQ's Reason for High Priority
<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>

Temperature Variances - In Progress

OAR 340-041-0028, OAR 340-041-0059

Problem	Project Scope and Outcome	DEQ's Reason for High Priority
<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 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>

Toxics - aquatic life criteria

OAR 340-041-0033

Problem	Project Scope and Outcome	DEQ's Reason for High Priority
<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>

Toxics - narrative criterion OAR 340-041-0033		
Problem	Project Scope and Outcome	DEQ's Reason for High Priority
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.

Biocriteria OAR 340-041-0011		
Problem	Project Scope and Outcome	DEQ's Reason for High Priority
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.

Excessive Aquatic Plant and Algal Growth and Nuisance Phytoplankton Growth OAR 340-041-0007, OAR 340-041-0019		
Problem	Project Scope and Outcome	DEQ's Reason for High Priority
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.

Sedimentation

OAR 40-041-0007 (11)

Problem	Project Scope and Outcome	DEQ's Reason for High Priority
<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 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.
Designated Use - public water supply, constructed waterways Beneficial use rule for each basin in OAR 340-041-0101 to OAR 340-041-0340.	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. Correct designated uses for constructed waterways, such as irrigation canals and drainage ditches.	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.	Revised use designations where appropriate and scientifically supported, which will clarify where certain criteria do and do not apply.	Medium	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.

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	Overall Priority (H/M/L)	DEQ Reasoning for Priority
pH OAR 340-041-0021	Revise the pH criteria for the Crooked River, Columbia River, and some coastal basins.	Some pH criteria do not reflect the basin characteristics (i.e. geology, rainfall, buffering capacity, etc.) and range of natural variability in pH.	Criteria that are protective of uses in the waterbody and are reflective of basin characteristics.	Medium	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.
Turbidity - implementation (see Turbidity - criteria below) OAR 340-041-0036	Turbidity implementation procedures; staff training	In some instances, DEQ has not documented procedures to apply the existing criterion.	Improved ability to use turbidity criterion for Clean Water Act programs	Medium	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
Antidegradation OAR 340-041-0004	Revise antidegradation implementation procedures.	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.	Clear implementation procedures.	Medium	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.
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.

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	Overall Priority (H/M/L)	DEQ Reasoning for Priority
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.
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.

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	Overall Priority (H/M/L)	DEQ Reasoning for Priority
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.
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

Topic and OAR (if applicable)	Project Scope	Problem Statement	Outcome/Result	Overall Priority (H/M/L)	DEQ Reasoning for Priority
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.
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.

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Alternative formats

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