#### State of Oregon

Department of Environmental Quality Memorandum

**Date: May 27, 2011**

**To:** Environmental Quality Commission

**From:** Dick Pedersen, Director

**Subject:** Agenda Item X, Rule Adoption: Revised Water Quality Standards for Human Health and Revised Water Quality Standards Implementation Policies

June 16-17, 2011 EQC Meeting

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| **Why this is Important** | The proposed rule addresses a significant gap in the level of human health protection provided by Oregon’s current water quality standards and will address this deficiency which EPA also identified as part of its June 2010 disapproval of Oregon’s human health criteria for toxic pollutants. In addition, this rule proposes or revises three permitting implementation tools that are critical for addressing known and anticipated permitting issues and clarifies how DEQ will interact with the Departments of Agriculture and Forestry in their implementation programs to control nonpoint sources of pollutants. |
| **Department Recommendation and EQC Motion** | The Department of Environmental Quality recommends that the commission amend Oregon’s water quality standards revising the human health criteria for toxic pollutants and the revised water quality standards implementation policies as presented in attachment A. The amendments to OAR 340-041, OAR 340-042, and OAR 340-045 contain * revisions to the human health criteria for toxic pollutants,
* a new “intake credit” provision,
* a new “background pollutant allowance” provision,
* revisions to the variance rules,
* revisions explaining how the mechanisms for forestry and agricultural nonpoint sources work to meet water quality standards and the TMDL load allocations under the Forest Practices Act and Agriculture Water Quality Management Act, and
* revisions clarifying how air or land sources are treated in the development of TMDLs.

DEQ also recommends that the and the implementing provisions contained in OAR 340-041, OAR 340-042, and OAR 340-045 become applicable under state law only after the revisions considered to be water quality standards are approved by EPA and become effective under the federal Clean Water Act. Language to this effect is included in the rule language and in Table 40 as presented in Attachment A.  |
| **Background and Need for Rulemaking** | The Clean Water Act establishes DEQ’s responsibility to develop and adopt water quality standards in Oregon to protect human health. Standards form the basis and guideposts for other programs DEQ administers under the Clean Water Act. DEQ must periodically review those standards and keep them up-to-date with science and new information and ensure that all beneficial uses are protected. DEQ works to ensure the water quality standards protect the majority of Oregonians, including susceptible groups, in determining the appropriate level of protection reflected in the standards.Numeric water quality criteria, which are expressed as concentrations that are not to be exceeded, are a key component of water quality standards. Meeting water quality standards ensures that Oregonians can consume fish and shellfish and use state waters for drinking water supply without adverse health effects. Some water bodies are currently contaminated by the pollutants addressed by this rulemaking. Some of these pollutants have been studied extensively by the scientific community, such as methylmercury, and have well-documented human health effects from exposure through fish consumption. Implementation of water quality standards through Clean Water Act programs prevent future pollution and provide mechanisms for addressing pollution that has already occurred. Water quality standards provide appropriate benchmarks for these purposes. In 2004, the EQC, adopted EPA’s recommended toxic pollutants criteria for aquatic life and for human health. The human health criteria were based on a fish consumption rate of 17.5 grams per day (g/d), which represents national consumption data. EPA and tribal members objected to the criteria, stating that the criteria do not protect Tribal members who eat much greater amounts of fish. In 2005, DEQ committed to revisiting the criteria and began a stakeholder process to reconsider the fish consumption rate.In October 2008, DEQ presented the results of this process to the commission along with a joint recommendation from DEQ, the Confederated Tribes of the Umatilla Indian Reservation and EPA to use 175 grams per day in revising the human health criteria. In turn, the commission directed DEQ to 1. Revise Oregon’s toxics criteria for human health based on a fish consumption rate of 175 grams per person per day;
2. Propose rule language that will allow DEQ to implement the standards in National Pollutant Discharge Elimination System (NPDES) permits and other Clean Water Act programs in an environmentally meaningful and cost-effective manner;
3. Propose rule language or develop other implementation strategies to reduce the adverse impacts of toxic substances in Oregon’s waters that are the result of non-point source (not via a pipe) discharges or other sources not subject to section 402 of the Clean Water Act; and
4. Develop a proposed rule and implementation methods that carefully consider the costs and benefits of the fish consumption rate and the data and scientific analysis already compiled or that is developed as part of the rulemaking proceeding.

DEQ has been working toward these directives since that time with rulemaking advisory workgroups, public discussion and comment on rules, and through the department’s consideration of the many comments received on the rulemaking. The proposed final rules include criteria revisions based on 175 grams per day. As described in the “Stakeholder Involvement” section of this report, DEQ spent a considerable amount of time discussing the choice of an appropriate fish consumption rate with interested members of the public and public health experts. These early discussions culminated in the joint recommendation to the commission and the commission’s direction to proposed rules based on 175 grams per day. During the public comment period, DEQ received many comments on use of fish consumption rate. Carefully considered those comments as described in “Key Issues” section. Many of the comments received raised similar issues to the topics of discussion and DEQ’s considerations during the public workshops and interaction with public health experts. As a result, as described in further detail in the Key Issues section, DEQ continues to conclude 175 grams per day is an appropriate fish consumption rate to protect the majority of Oregonians, therefore, proposing final criteria based on 175 grams per day. Implementing NPDES permits. Brainstormed many different ideas to address known and anticipated permitting issues. Proposed those rules that would complement current permitting approaches and tools, were most likely to address identified issues, and likely to be found legal by EPA under Clean Water Act. Evaluated data and information provided by affected entities regarding the potential impact of the implementing the proposed rules into NPDES permits, supplemented that data and information with our own, and performed our own analysis. DEQ staff will present to the commission the findings of this analysis as part of its presentation.Approaching nonpoint source issues. Brainstormed dozens of potential regulatory and non-regulatory options. Evaluated against DEQ and other departments’ regulatory authorities. Cost and benefits and scientific data and information. DEQ conducted an extensive cost analysis. Used quantitative information where available, including SAIC report and information provided by stakeholder advisory workgroup members during their review. Where quantitative information was not available, DEQ described the circumstances under which cost impacts may occur for sources and resource implications for DEQ staff. These considerations were part of the discussions DEQ first had with the Fiscal Impact and Implementation Advisory Committee in 2008 and continued with the rulemaking advisory committees from 2008 through 2010. DEQ sought throughout the process to develop proposed rules that establish the appropriate goals and have permit implementation tools available to use in appropriate situations. In addition, during the rule development process, workgroup advisory members identified three pollutants that frequently occur at high levels in Oregon waters naturally and that frequently present associated issues for permittees. DEQ assessed the available scientific data and information and found that it would support less stringent criteria values for those pollutants. Based on the requests of stakeholders, DEQ also expedited criteria revisions for these three pollutants. The commission adopted revisions for these criteria in December 2010 (iron and manganese) and in April 2011 (arsenic).Lastly and importantly, on June 1, 2010, EPA disapproved Oregon’s 2004 human health toxics criteria that were based on a fish consumption rate of 17.5 grams per day. EPA took action at that point in time to meet timeframes established in a consent decree between EPA and plaintiffs. EPA disapproved the human health toxics criteria because the fish consumption rate used to calculate the criteria is not sufficiently protective of the fish consumption levels among Oregon’s population. As a consequence of EPA’s disapproval, the majority of currently effective human health criteria have reverted back to criteria from the 1980s based on fish consumption of 6.5 grams per day. Using a higher, more protective fish consumption rate of 175 grams per day in its calculation of human health toxics criteria will address EPA’s disapproval. If DEQ does not promulgate revised standards in a timely manner addressing EPA’s disapproval, EPA must conduct rulemaking to promulgate human health toxics criteria for Oregon. The resultant water quality standards, either set by DEQ or EPA, are the basis of NPDES and other regulatory tools used by DEQ and EPA to prevent or reduce water pollution.   |
| **Effect of Rule**  | DEQ is proposing revisions to its water quality standards regulation, as well as targeted changes to its NPDES permitting and TMDL regulations to address how these new standards would be implemented by sources. The proposed rules, if adopted, will be implemented alongside current regulations governing water quality standards and their implementation.The proposed human health criteria revisions based on a fish consumption rate of 175 grams per day constitute the core of DEQ’s proposed rules. [x-ref page numbers in attachments] This revision will serve as the basis for NPDES permit limits and other regulatory decisions. Revising the criteria will address EPA’s disapproval of DEQ’s 2004 criteria and obviate the need for EPA to put in place federal rules for Oregon.In addition to the proposed criteria revisions, DEQ is proposing new and revised rules addressing the implementation of these revised criteria in NPDES permits [x-ref page numbers in attachment]. * A new rule for “intake credits” will account for background pollutants that are present in a discharger’s intake water.
* A new rule for a “background pollutant allowance” allows a certain amount of concentration increase in the discharge from the ambient concentration, as long as mass is not increased and the ambient concentration does not exceed a 10-4 risk level value.
* Revisions to the rules for variances will continue to allow NPDES permitted facilities to seek a short-term exemption from meeting water quality standards-based limits for a specific pollutant(s). The revisions will allow the process to be synchronized with the NPDES permit issuance process and require pollutant minimization plans to ensure progress continues toward meeting water quality standards.

These rule revisions would be used in the development and issuance of NPDES permits and would complement current rule provisions to address issues identified as presenting issues for permittees today in addition to issues that may arise in the future either due to more and better data or as the result of the revised human health criteria. Both intake credits and the revised variance provision could be used to implement both human health and aquatic life criteria, if the conditions specified in the rules are met.DEQ is also proposing for adoption targeted revisions to the water quality standards and total maximum daily load regulations [x-ref pages in attachments] to explain how the mechanisms for forestry and agricultural nonpoint sources work to meet water quality standards and the TMDL load allocations under the Forest Practices Act and Agriculture Water Quality Management Act. Meeting conditions in the Agriculture Water Quality Management plans and practices in the Forest Practices Act will result in meeting new standards. The Oregon Departments of Agriculture and Forestry remain the implementing agencies under the proposed rule revisions. The rule revisions do not create a different set of responsibilities or oversight.In addition, DEQ proposes to adopt accompanying changes to the Total Maximum Daily Load regulations to clarify DEQ’s authority to identify and assign individual load allocations to significant air and land sources in TMDLs.[Summarize what the rule would do, and reference specific pages in Attachment A1 or A2, if applicable*.*] |
| **Commission Authority** | The Commission has authority to take this action under ORS 468.020, 468B.010 and 468B.035. |
| **Stakeholder Involvement** | In 2006, DEQ initiated work to relook at fish consumption information and any necessary rule revisions. From that time, DEQ’s effort to evaluate fish consumption information and to develop rules has involved many partners, interested stakeholders, and experts. Early in the process, DEQ formed a “Three Governments” partnership with EPA and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). During the first phase of this effort, the three governments co-hosted seven workshops around the state with the objectives of sharing information and discussing stakeholders’ views regarding an appropriate fish consumption rate. 195 people attended the workshops representing 64 different organizations or groups. Simultaneously, DEQ convened a public health expert advisory workgroup and charged them providing input on key questions that would enable DEQ to evaluate the available and relevant fish consumption data and information. DEQ also convened a Fiscal Impact and Implementation Advisory Committee and requested that the group provide input on the potential fiscal impacts associated with selecting a greater fish consumption rate and evaluate potential implementation approaches DEQ could consider when implementing any revised criteria. The workshops and input gathered through that process culminated in a joint three government recommendation to the commission in October 2008. The commission subsequently directed DEQ to use 175 grams per day as the fish consumption rate in the calculation of the human health criteria for toxic pollutants. In December 2008, DEQ convened a stakeholder advisory Rulemaking Workgroup, comprised of eight members representing municipal and county governments, industry, and environmental organizations, in addition to representatives from EPA and the Confederated Tribes of the Umatilla Indian Reservation. The members of this workgroup are listed in Attachment C1. DEQ charged the group to help DEQ develop innovative NPDES implementation options, provide input on rule language development, and identify issues beyond the scope of the rulemaking.Based on discussions occurring during that year and the interest of the group in discussing pollutant sources that do not receive an NPDES permit, DEQ expanded the workgroup to add five stakeholder advisory members representing nonpoint source interests, including the forestry and agricultural industry, and charged the workgroup with considering potential rule revisions related to nonpoint sources. The Oregon Departments of Agriculture and Forestry also participated in workgroup discussions. The members of this workgroup are listed in Attachment C2. The stakeholder advisory workgroups met approximately once a month. Through these discussions, DEQ developed a series of issue papers containing DEQ’s recommended approach to addressing identified issues, DEQ’s accompanying analysis, and documenting the workgroup discussions and concerns, including any issues the stakeholders identified as significant. DEQ published these issue papers on its website as supporting information for the proposed rulemaking. In addition, the facilitator for both rulemaking workgroups developed a summary of this process provided in an accompanying document to this staff report. |
| **Public Comment** | A public comment period extended from January 1, 2011, to March 21, 2011, and included public hearings in Bend, Eugene, Medford, Coos Bay, Ontario, Pendleton, Portland, and Salem. DEQ held an additional public hearing in Portland with the commission. DEQ extended the public comment period from February 18 to March 21 in response to requests from stakeholders and legislators. DEQ received comment from over 1100 individuals and organizations representing a variety of perspectives. Key issues arising from these comments as well as issues identified from the rulemaking process are summarized in the “Key Issues” section below. DEQ’s summary and response to comments is provided in Attachment C.  |
| **Key Issues** | 1. **DEQ’s selection of a fish consumption rate to be used in criteria calculations**

The selection of the fish consumption rate has been raised and discussed throughout this process, beginning in 2006 through the seven public workshops focused on this topic. Many commenters addressed this through their public comment. Comments raising concerns specifically asserted that the studies evaluated through this process are flawed for one or more reasons: the studies are outdated, the rate is not reflective of the amount of fish Oregonians consume from Oregon waters, the rate should not include salmon, the rate results in unreasonable criteria values, a rate this high is unreasonable in light of a lack of evidence of health effects from pollutants in fish. DEQ also received many comments supporting DEQ’s selection of 175 grams per day, citing DEQ’s use of peer reviewed studies, noting that it represents a significant improvement from the current fish consumption rate used, and appropriately protects the majority of Oregonians who consume fish.DEQ considered the input through its public workshops and reviewed the comments it received as summarized below and provided in more detail in the Summary and Response to Comments document provided in Attachment XX.***DEQ’s consideration of fish consumption studies***With regard to the fish consumption studies evaluated, the Human Health Focus Group identified five relevant studies considered to be scientifically defensible in developing a fish consumption rate for Oregon.  The five studies were published between 1994 and 2006. The CRTIFC fish consumption survey, published in 1994, remains relevant and reliable because it includes fish consumption data from two tribes that reside in Oregon—the Warm Springs Indian Reservation and the Confederated Tribes of the Umatilla Indian Reservation.  Although the survey was conducted in 1991 – 1992, it is still considered relevant for developing fish consumption rates in Oregon because it represents consumers who regularly eat fish and shellfish and are thus, more highly exposed to toxic pollutants than consumers who eat less. DEQ is not aware of any reason to conclude that the consumption patterns of the population surveyed have changed since that time. DEQ establishes standards to ensure all Oregonians are protected from toxics when exposed to water and when eating fish. The 175 gram per day rate will accomplish this objective.***DEQ’s consideration of salmon being included in the fish consumption rate***DEQ also carefully considered whether salmon should be incorporated as part of the fish consumption rate, including evaluating and discussing with the public and the Human Health Focus Group a number of approaches prior to arriving at the fish consumption rate approach used in its proposed rulemaking. Some approaches included salmon in the consumption rate, and others did not include salmon and accounted for people’s exposure to pollutants in salmon through other means.  DEQ and the Human Health Focus Group ultimately recommended that salmon be included in the fish consumption rate for several reasons, including salmon is a large portion of the locally caught fish diet, the cultural significance of salmon, particularly for the tribes, salmon spend a portion of their lifecycle in Oregon fresh and coastal waters, and uncertainty about how much toxics accumulation occurs in salmon in fresh waters versus estuarine or marine waters.This approach is similar to states and tribes that use fish consumption rates that are higher than EPA’s 17.5 g/day value (including Maine, New York, the Warm Springs Tribe, and the Confederated Tribes of the Umatilla Indian Reservation), that have also included marine species to provide protection for a high percent of the population, to reflect consumption of species eaten by the general population and to be consistent with the species included in fish advisories.***DEQ’s consideration of known health effects associated with eating fish***With regard to the concerns raised regarding whether the consumption of fish results in health effects, the criteria incorporate information regarding the toxicological effects of the pollutants. This information has been extensively reviewed by EPA. Further, information exists that documents direct health effects from eating fish contaminated with pollutants, such as mercury. The water quality standards serve as both a guidepost for implementing actions to prevent these effects and a benchmark for pollutant reduction actions when data indicate these levels have been exceeded. 1. **Adequacy of new and revised NPDES permit implementation tools**

Stakeholders and commenters raised concerns through the advisory committee and through comments regarding the sufficiency of the proposed permit implementation tools. Stakeholders and commenters stated that the proposed tools are not sufficient to address widespread permitting issues and did not meet EQC directive to [ ], In addition, DEQ received stakeholder input and subsequent comment that the proposed tools do not include sufficient detail about how they would be used, and in the case of background pollutant allowances and intake credits, commenters raised concern regarding their use for municipalities. DEQ needs a comprehensive plan for how it’s going to address each category of pollutants. Tools or identified aspects of tools are not legal (e.g., the background pollutant allowance, aspects of the variance rule). Some comments acknowledging need for tools and supportive of tools as striking balance between achieving improved water quality and addressing potential permitting issues.DEQ considered this input throughout the stakeholder advisory process and considered over a dozen approaches during this process. DEQ proposed tools that represent those approaches it had some assurance could be useful for permitting situations identified and could be approved by EPA as legal under the Clean Water Act. In response to comments received, staff significantly revised the background pollutant allowance. Revised intake credits to provide additional clarification. In preparing final rules for presentation to EQC, DEQ further evaluated available data and information to better characterize potential permitting issues that will be encountered and developed a plan for approaching pollutant categories using existing approaches, tools, as well as proposed rules which will be presented as part of EQC agenda item.1. **Detail and implementation of DEQ’s revised variance procedures**

Variance provision has the potential to apply in a variety of permitting situations where it’s not feasible to meet the calculated limits. While the impetus for revising the existing provision is to address situations that are likely to arise due to the revised human health criteria, the existing provision can be used for both human health and aquatic life criteria. In the course of the discussions related to the development of the proposed rule, stakeholders raised questions and concerns regarding the level of detail that should be contained in the rule, the applicability of the revisions to the aquatic life criteria, and whether the revisions should also include a multiple discharger variance. Commenters raised similar issues. DEQ’s consideration of these issues is described below.***Level of detail contained in proposed rule***In the course of developing revisions to the variance rule, stakeholders had many questions regarding the details of its implementation, which were also raised by commenters. Variances are going to be different among facilities and are likely to vary by pollutant. The level of needed data and analyses will likely vary among situations. Because there is not likely to be a “one size fits all “ approach, DEQ sought to include sufficient specificity in the rule to govern how the process would be implemented and provide additional specificity through the development of an Internal Management Directive and associated documents. DEQ released an outline of the IMD with the proposed rule revisions and has published a draft IMD to accompany this final proposed rulemaking to highlight and provide additional details regarding DEQ’s approach to implementing variances. In addition, to respond to questions and concerns raised during the stakeholder advisory committee process, particularly the concerns about the lack of experience by both permittees and DEQ in implementing such a provision, DEQ held a workshop with DEQ and EPA Region 10 staff and selected states and EPA regions to share their experiences implementing variances. DEQ subsequently held a stakeholder seminar with those states and EPA Regions to share and learn from those experiences.DEQ reviewed the comments it received on this topic and clarified elements of the rule to better define the roles of DEQ and permittees in implementing the provision. Further, as described in the preceding paragraphs and in the [Next Steps/Timeline], DEQ will complete the IMD following the commission’s adoption of the rule and develop related materials to facilitate the rule’s implementation. ***Applicability of variances***As noted above, DEQ’s impetus to pursue revisions to its variance provision was due to concern about new or exacerbated issues that could arise in the implementation of the revised human health criteria. The current variance provision may be used for either the human health or the aquatic life criteria where the specified conditions are met. During the rule development process, some stakeholder requested DEQ limit its proposed variance provisions to the human health criteria, citing concerns regarding whether the revisions would sufficiently protect aquatic life endpoints. The proposed revisions allow variances to more closely align with the NPDES permit issuance process and add a requirement to develop and implement a pollutant reduction plan to ensure further progress toward achieving the water quality standards. DEQ does not view these revisions as diminishing water quality protections for aquatic life, and particularly with regard to the new requirement to develop and implement a pollutant reduction plan, will provide for additional water quality improvements. For any variance addressing an aquatic life criterion, EPA must consult under the Endangered Species Act prior to approving the variance in order to ensure that the action does not jeopardize the existence of federally listed species or result in the adverse modification of designated critical habitat of such species. Based on these considerations, DEQ did not revise the variance rule to alter its applicability to the aquatic life criteria. ***Multiple discharger variances***Some states have developed multiple discharger variances where a common pollutant issue arose for a specified point source sector. State have found such an implementation tool useful since, once adopted as a rule by DEQ and approved by EPA, coverage of individual facilities seeking “coverage” under the multiple discharger variance do not require individual approvals by DEQ and EPA. This fact distinguishes it from the variance authorization procedures, however, sector- and pollutant-specific analyses must be conducted in conjunction with a specific rule to support its adoption. DEQ discussed with the stakeholder advisory workgroup during the development of proposed rules whether sufficient information was currently available indicating such a situation that would warrant inclusion of an additional rule provision. No such information was identified as part of that process. Through public comment, DEQ received several requests to reconsider including a multiple discharger variance. At this time, this information has not been provided or developed by the department. As a result, DEQ did not include a multiple discharger variance in the final proposed rules. DEQ will pursue such a rule in the future should information become available to support such an action.1. **DEQ’s intent and authority related to proposed water quality standards and total maximum daily load revisions addressing nonpoint sources**

Concern was raised that the proposed changes to OAR 340-041 and -042 over reach DEQ’s statutory authority under the Agriculture Water Quality Management Act and the Forest Practices Act and expands DEQs authority over nonpoint sources. Other comments raised concerns that proposed language did not go far enough for control of nonpoint sources to meet the intent of the Clean Water Act. DEQ considered the input but believes the proposed rule language is consistent with existing state statutes and the changes would be useful in clarifying DEQ’s role and responsibilities when working with nonpoint sources of pollutants.1. **Economic impacts associated with the proposed rulemaking; DEQ’s evaluation of the proposed rule’s cost**

Stakeholders and interested parties have raised concerns with the potential economic impact associated with this rulemaking throughout the process. In 2008, DEQ formed the Fiscal Impact and Implementation Advisory Committee to discuss some of these concerns and to inform early discussions regarding the selection of a fish consumption rate and to initiate and inform identification of potential implementation approaches for NPDES permitted sources. DEQ continued related discussions with the rulemaking advisory committee members as rule options were identified, analyzed and discussed. These discussions and analyses informed DEQ’s proposed rule and were incorporated into the drafting of the Statement of Need and Fiscal and Economic Impact.DEQ received additional comments on the proposed rule regarding the potential economic impact of the proposed rulemaking. Specifically, commenters expressed general concerns regarding DEQ’s assessment of potential costs described in the Statement of Need and Fiscal and Economic Impact (Attachment F) and more specific concerns regarding the economic consequence resulting from implementing criteria based on 175 grams per day fish consumption rate, costs associated with treatment technologies to achievement the proposed standards, costs associated with applying for and implementing the revised variance rules, and the economic impact to agricultural activities. DEQ considered the input through its public workshops and reviewed the comments it received as summarized below and provided in more detail in the Summary and Response to Comments document provided in Attachment B.***Impact of rules on Oregon’s economy***Stakeholders and commenters raised concerns through the advisory committee and through comments regarding the impact the proposed rules could have on Oregon’s economy. Members of the business community think they will have to install treatment technologies that will be very expensive or may cause businesses to close. DEQ does not intend for facilities to put in place treatment technologies that result in unreasonable costs or that are unproven for the application in question. DEQ has considered this issue throughout the process and has spent a significant amount of time with the stakeholder advisory workgroups discussing and developing proposed rules for implementation approaches. DEQ has developed a draft Internal Management Directive for Variances to accompany this staff report and will be finalizing this IMD along with others to provide additional detail regarding how DEQ plans to implement these approaches to achieve these objectives.Others commenters expressed a similar concern for Oregon’s economy based on a perception that the proposed rules create a new authority for DEQ to regulate nonpoint sources. DEQ does not agree that the revisions related to nonpoint sources will result in an impact on the economy as described by many commenters. DEQ’s materials accompanying the proposed rules, and its presentations at public hearings have stated that … . As such, DEQ continues to conclude that its Statement of Need and Fiscal and Economic Impact is accurate.***Level and accuracy of DEQ’s analysis of potential costs***DEQ consulted with the stakeholder advisory groups on its draft of the Statement of Need and Fiscal and Economic Impact, which included quantitative cost information developed by SAIC, an EPA contractor. Where quantitative information was not available, DEQ described the circumstances in which it anticipated costs could be incurred. DEQ solicited and included any additional information stakeholders were able to provide into its analysis. Some commenters questioned the accuracy of the information contained in DEQ’s analysis, but few provided specific information detailing alternative analyses. Where commenters included cost information relevant to the proposed rules, DEQ evaluated the information and found that it was similar to the estimates included in the Statement of Need and Fiscal and Economic Impact. In response to requests for DEQ to develop additional quantitative cost analyses, While the estimates contained in the Statement of Need and Fiscal and Economic Impact are uncertain, potential costs associated with the implementation of these standards will vary on a facility by facility basis, and specific estimates are very difficult without knowing each and every situation. DEQ’s approach to evaluating potential costs represents a thorough and reasonable approach, given the Agency’s resources and the amount of information available.***Human health criteria based on 175 grams per day are not achievable; treatment technologies, if available, are too expensive***Throughout this process, DEQ has discussed the viability of achieving criteria based on 175 grams per day with the public and stakeholders. Most of the 114 pollutants included in the proposed rule have not previously been found at detectable levels in effluent, and DEQ does not expect that to change for the majority of pollutants addressed in this rulemaking. DEQ acknowledges that for some pollutants, the revised criteria may result in new or lower effluent limits for NPDES permitted sources and spent significant time with the stakeholder advisory group discussing implementation approaches to address this circumstance. DEQ does not intend for facilities to put in place treatment technologies that result in unreasonable costs or that are unproven for the application in question. DEQ spent significant amount of time with the stakeholder advisory workgroups discussing and developing proposed rules for implementation approaches. DEQ’s Statement of Need and Fiscal and Economic Impact incorporate the use of these necessary implementation tools.***DEQ’s estimates regarding the costs to obtain and implement variances***DEQ’s estimates regarding the cost to obtain and implement variances were based in part, on quantitative information developed in the report by SAIC, an EPA contractor. In addition DEQ estimated the resources needed within DEQ to evaluate and approve variances. Some stakeholders raised questions regarding DEQ’s estimates during the development of the Statement of Need and Fiscal and Economic Impact and several comments questions DEQ’s assessment of costs. The level of data, information and analysis involved in the development and approval of variances are likely to vary facility by facility and pollutant by pollutant. In addition, DEQ expects time and resources to develop and approve variances will decrease as the department and permittees become more experiences. As a result, DEQ providing a precise cost estimate is not a practicable exercise. Two commenters provided cost estimates for obtaining a variance. In one case, the estimated dollar amounts were simply stated without an accompanying cite or information that would have enabled DEQ to understand how the dollar figures were calculated, therefore, DEQ was unable to verify whether the dollar figures represented a better estimate of costs than included in the Statement of Need and Fiscal and Economic Impact. In the other case, executive summary of a cost analysis was provided related to developing a pollutant reduction plan for four pollutants: arsenic, cadmium, methylmercury, and PCBs. DEQ doesn’t expect NPDES permitted sources to need variances for first three pollutants.[[1]](#footnote-1) In addition, the summary noted that the estimates represented an “order of magnitude” estimate. As a result, without some of the underlying data and analyses, DEQ is unable ascertain the extent to which these estimates are significantly different than the information developed in conjunction with the proposed rule.***DEQ’s analysis of the proposed rule’s effect on landowners***Will ruin business; will have no effect1. **Environmental effect of the proposed rules**

DEQ initiated the process in 2005 to relook at water quality standards rules based upon concerns raised by EPA and Oregon tribes that the water quality standards adopted in 2004 would not be adequate to protect people from exposure to pollutants associated with the consumption of fish. Commenters have further questioned whether the proposed rules will result in a measurable or demonstrated environmental effect. Stakeholder and commenters expressed these concerns in a couple of different ways. Some commenters asserted that DEQ did not adequately describe the environmental issue the rule is intended to address; others asserted that DEQ’s proposed rules were insufficient to address the broad ranges of sources of toxic pollutants. Some commenters requested that DEQ develop pollutant specific watershed-based strategies to accomplish this latter objective.***Environmental objective achieved by proposed rules***Some commenters suggested that DEQ failed to identify the environmental problem these proposed standards will address. DEQ explained in the materials accompanying the proposed rules that water quality standards serve multiple purposes, including serving as the baseline for implementing Clean Water Act programs that serve to prevent pollution from occurring at undesirable levels. They also serve as benchmarks for implementing restorative actions, including the development and implementation of Total Maximum Daily Loads when these levels are found to be exceeded. DEQ explained in response to these comments that it does not believe that standards should only be established in reaction to excessive pollutant levels, and that establishing appropriate standards serve an important function in preventing pollution as well. Preventing pollution from occurring is ultimately more cost-effective than attempting to clean up pollution from Oregon’s water bodies.Other commenters expressed concern with the extent to which the proposed rules would be sufficient to address known environmental issues and asserted that the proposed rules do not reach broadly enough to reduce levels of pollution. Throughout the development of the proposed rules, DEQ discussed with members of the stakeholder advisory group many different regulatory and non-regulatory options. DEQ proposed revised criteria and implementation approaches that it concluded would address the known environmental issues, would build upon existing regulatory and non-regulatory programs, and that would be found to be legal by EPA under the Clean Water Act. DEQ further evaluated comments received on this point, but did conclude that additional regulatory provision would be appropriate to include at this time. As described in the [Next step/Timeline], DEQ has a number of actions and activities underway that will continue its efforts to further prevent and reduce toxic pollutants’ release into Oregon’s waters.***Implementation strategy for pollutant categories***Some commenters requested DEQ develop an implementation strategy addressing categories of toxic pollutants based on a watershed approach that involve all pollutant sources. |
| **Next Steps** | If adopted by the commission, the rule amendments will be filed with the Secretary of State and submitted to EPA for approval. DEQ proposes that the revisions to the human health criteria and the implementing provisions contained in OAR 340-041, OAR 340-042, and OAR 340-045 become applicable under state law only after the revisions considered to be water quality standards are approved by EPA and become effective under the federal Clean Water Act. DEQ has included language in OAR 340-041 and Table 40 to this effect. Once EPA approves the water quality standards, DEQ will post updated Tables 20, 33A, 33B and Table 40 on DEQ’s website where they will be available to the public and affected permittees. Any needed changes to effluent limits in NPDES permits, Oregon’s list of impaired waters, and any other Clean Water Act implementation of the revised rules will be evaluated on their current schedules (e.g., as permits are renewed). In addition, water quality program staff will notify all DEQ staff and managers that implement water quality standards of the rule changes. DEQ will also notify the members of DEQ’s stakeholder advisory committees, points of contact from the Departments of Agriculture and Forestry, individuals who commented on the rulemaking, points of contact at EPA Region 10, [who else?] of the adoption of the rule, DEQ’s planned implementation of the rule, and next steps as described below.A draft Internal Management Directive for variances based upon the proposed rule and a draft Internal Management Directive for total maximum daily loads have been made available in conjunction with this staff report. Upon the commission’s adoption of these rules, DEQ will develop final Internal Management Directives addressing (1) variances; (2) intake credits; (3) background pollutant allowances; and (4) total maximum daily load development based on the final adopted rules. DEQ water quality staff will conduct internal training for program staff responsible for implementing the various rules.In addition, DEQ will develop templates for variances to be used for municipal and industrial sources. DEQ expects to develop these templates within 18 months following the commission’s adoption of final rules. In addition, following that effort, DEQ will determine whether a multiple discharger variance is needed for a pollutant a particular sector or sectors. If DEQ determines that there is such a need, rulemaking to adopt a multiple discharger variance would begin. DEQ expects that such an effort would take approximately two years.[Other items to include  |
| **Attachments** | 1. Proposed Rule Revisions
2. Summary of Rule Revisions
3. Proposed Rule Revisions {redlined version}
4. Proposed Revisions to Tables 20, 33A, 33B, and new Table 40
5. Summary of Public Comments and Agency Responses
6. Advisory Committee Memberships
7. Rulemaking Workgroup
8. Non-NPDES Workgroup
9. Fiscal Impact and Implementation Advisory Workgroup
10. Human Health Focus Group
11. Presiding Officer’s Reports on Public Hearings
12. Relationship to Federal Requirements Questions
13. Statement of Need and Fiscal and Economic Impact
14. Land Use Evaluation Statement
 |
| **Available Upon Request** | {Note: Attachments A through G must be attached to staff report. Use your discretion to list and attach documents below only if needed to explain key issues raised in report.}1. Issue Paper: Human Health Toxics Criteria
2. Issue Paper: Implementing Water Quality Standards for Toxic Pollutants in NPDES Permits
3. Issue Paper: Revisions to the Water Quality Standards and TMDL Rules (Divisions 41 and 42)
4. Facilitator’s Report
5. Written Comment Received
6. Draft Internal Management Directive: Implementing Water Quality Standards Variances for NPDES Permittees
7. Draft Internal Management Directive: Total Maximum Daily Loads
8. Memo regarding development of MOU between DEQ and the Department of Agriculture and MOA between DEQ and the Department of Forestry
9. Rule Implementation Plan
10. Timeline for Next Steps
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Approved:

 Section: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Division: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. The commission adopted revisions to the human health arsenic criteria in April 2011, resulting in a significantly less stringent value. EPA approved DEQ’s removal of the human health criteria for cadmium in June 2010. Aquatic life criteria for cadmium remain, but the analysis did not specify whether the cost estimate was based on the cadmium aquatic life criteria. DEQ states in the Summary and Response to Comments that it intends to use EPA’s Methylmercury Implementation Guidance which should not result in the need for variances for that pollutant. [↑](#footnote-ref-1)