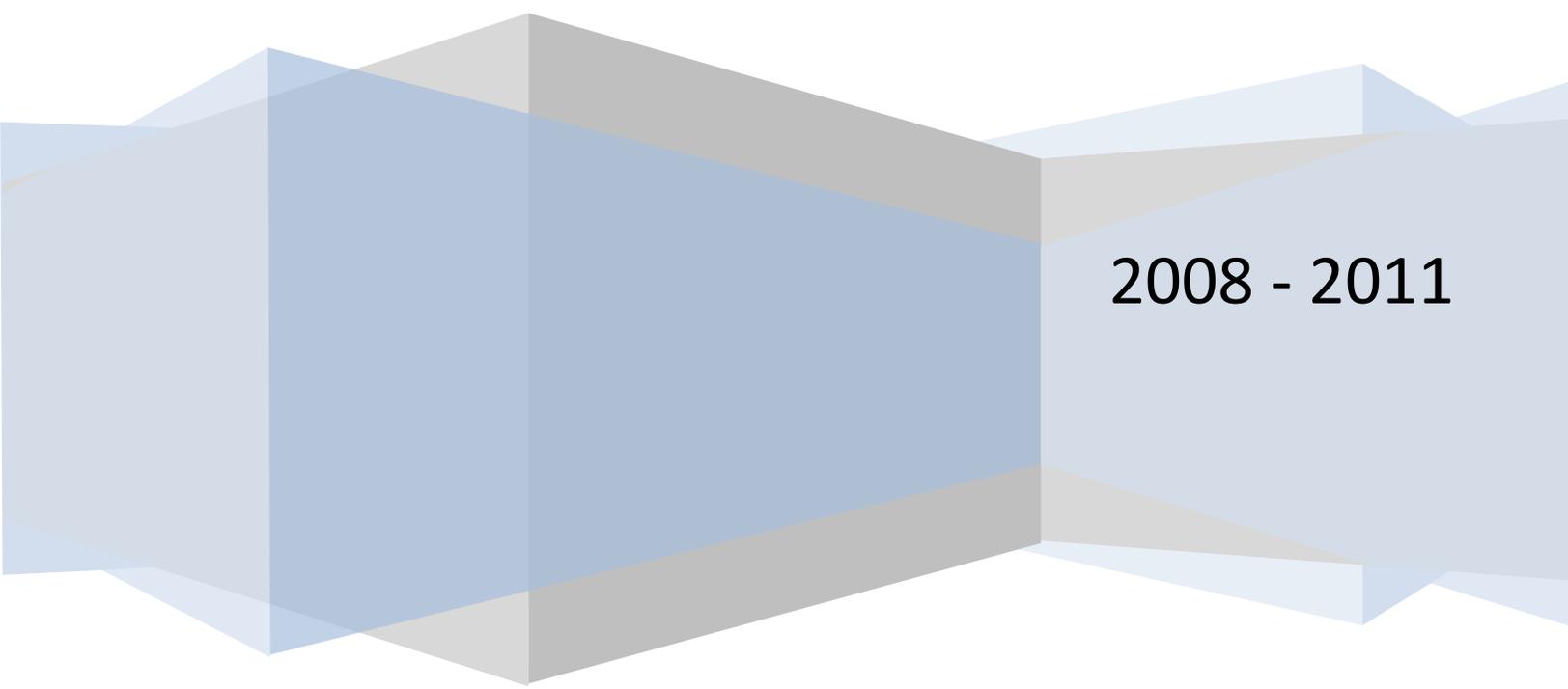


June 7, 2011

Executive Summary

Human Health Toxics Rulemaking



2008 - 2011

1. Introduction

DEQ is proposing revisions to Oregon's water quality standards and related regulations. Water quality standards establish goals for Oregon's surface waters such as protecting communities of fish and other organisms that live in the water, sources of drinking water and helping ensure that the fish we eat from Oregon waters is safe. DEQ's proposed revisions set levels of toxic pollutants (also known as the human health criteria) that allow the state to meet the goals of eating fish and drinking water.

DEQ ensures these levels are met by putting in place requirements for sources of these pollutants. Two important ways DEQ accomplishes this is by issuing permits to facilities that discharge treated wastewater, also known as National Pollutant Discharge Elimination System or NPDES permits, and by developing clean water plans, also known as Total Maximum Daily Loads or TMDLs, when data or information indicate the water body does not meet its goal. In addition, DEQ works with land management agencies such as the U.S. Forest Service and ODOT, as well as regulatory agencies such as Departments of Forestry and Agriculture to prevent nonpoint source pollution.

The proposed rules, if adopted, will affect requirements for sources of toxic pollutants including cities and businesses that discharge wastewater if their discharge contains one or more of the regulated pollutants. Forest and agricultural land managers, transportation and other construction projects and other parties subject to programs that control point and nonpoint pollution sources could also be affected if their activity results in the release of regulated toxic pollutants into surface waters. DEQ is proposing changes to its water quality standards regulation as well as some targeted changes to its NPDES and TMDL regulations to address how these new standards would be implemented by sources.

DEQ initiated this work in 2006 in response to U.S. Environmental Protection Agency's and many Tribes' concerns that DEQ's 2004 regulations addressing toxic pollutants did not adequately consider the amounts of fish people eat when setting criteria to protect the goal of safely eating fish. Since that time, DEQ has been working with EPA, Tribes, particularly the Confederated Tribes of the Umatilla Indian Reservation, interested members of the public, and experts in the public health field. DEQ's first objective was to identify the appropriate fish consumption level, or rate, and then develop regulations that would establish that rate as part of its water quality goals. The proposed rules represent the work done over the past four years to meet these objectives.

2. Background

The Federal Clean Water Act

The federal Clean Water Act requires states to develop and, from time to time, revise state water quality standards. While the Act requires states to develop and adopt the regulations, EPA retains an oversight role and must approve the regulations before states can implement them.

Water quality standards contain three major components: (1) the uses (or goals) assigned to the state's waters, such as recreation, protection of fish and other aquatic organisms, and public water supply (the

June 7, 2011

terms “designated uses” or “beneficial uses” are frequently used to describe the goals); (2) the pollutant concentrations associated with protection of the assigned uses (e.g., water quality criteria); and (3) procedures to ensure water quality is maintained and that also govern how and in what circumstances DEQ may allow a source to degrade water quality (known as the “antidegradation policy”). DEQ implements these water quality standards components and places requirements on sources where needed to achieve the state’s water quality goals.

Oregon’s water quality standards predate the 1972 federal Clean Water Act, and over the years, DEQ has revisited them to reflect new science and information. Frequently, EPA is the source of new information. With regard to criteria specifically, EPA continuously reviews scientific data and information used to establish criteria for human health protection and to protect communities of fish and other organisms that live in the water. Based on these reviews, EPA publishes criteria recommendations and the values used to calculate the criteria. The types of values EPA publishes include a fish consumption rate as well as values accounting for the amount of water people may drink, body weights, and, for pollutants that are known to be cancer-causing, a risk rate (e.g., one excess cancer case in one million people). States, including Oregon, typically use these EPA recommended criteria and values when adopting their own water quality standards.

While water quality standards express the desired water quality of the state’s waters, DEQ works to achieve these goals through a number of other Clean Water Act programs. First, DEQ administers the NPDES permitting program. DEQ places requirements in NPDES permits to ensure that the discharged wastewater is clean enough to meet water quality standards. In instances where DEQ does not issue a permit to a discharger or for an activity (for example, when the Army Corps of Engineers issues permits to entities that dredge river sediments), DEQ must “certify” that the permit being issued by the other regulatory authority contains sufficient requirements to meet the state’s water quality standards. In cases where DEQ looks at data and information and concludes a stream or lake’s water quality does not meet water quality standards, DEQ must develop a pollutant budget, or TMDL, that allocates allowable pollutant loads to sources within the water body or watershed.

Other State Requirements and Programs

In addition to the activities that DEQ carries out, other agencies within Oregon also have a responsibility to carry out activities to meet water quality standards. The Oregon Department of Agriculture must revise and implement Agriculture Water Quality Management Plans and rules. These plans provide guidance, while the rules provide an enforceable backstop to resolve water quality issues. The Oregon Department of Forestry implements the state’s Forest Practices Act by providing guidelines and management practices to operators managing state and private forest lands to prevent water quality issues through administrative rules.

DEQ works closely with the other state agencies in implementing the state and federal laws governing water quality.

DEQ's Efforts on Toxic Pollutants

The rules DEQ is proposing to address toxic pollutants through water quality standards and its implementing programs is only one area in which DEQ is working to address sources of toxic pollutants. Concurrent to this effort, DEQ is developing an Agency-wide Toxics Reduction Strategy. DEQ is identifying priority pollutants and opportunities for pollutant reduction efforts and will align resources and programs within the Agency to address those priority actions. The toxic pollutants directly addressed by this water quality standards rulemaking have also been identified as priority pollutants for the entire Agency. As a result, some of the actions proposed in the Toxics Reduction Strategy will help achieve the goals of the rulemaking.

DEQ anticipates completing a draft strategy to stakeholders in September 2011. This draft will outline specific actions DEQ proposes to reduce toxic chemicals and pollutants in Oregon's water, land and air. These actions will involve all of DEQ's divisions, as well as partnerships with other agencies and organizations. Development of revised water quality standards regulations is one component of DEQ's overall efforts to address and reduce toxic pollutants. Please see Figure 1 below which illustrates DEQ's Toxics Reduction Strategy.

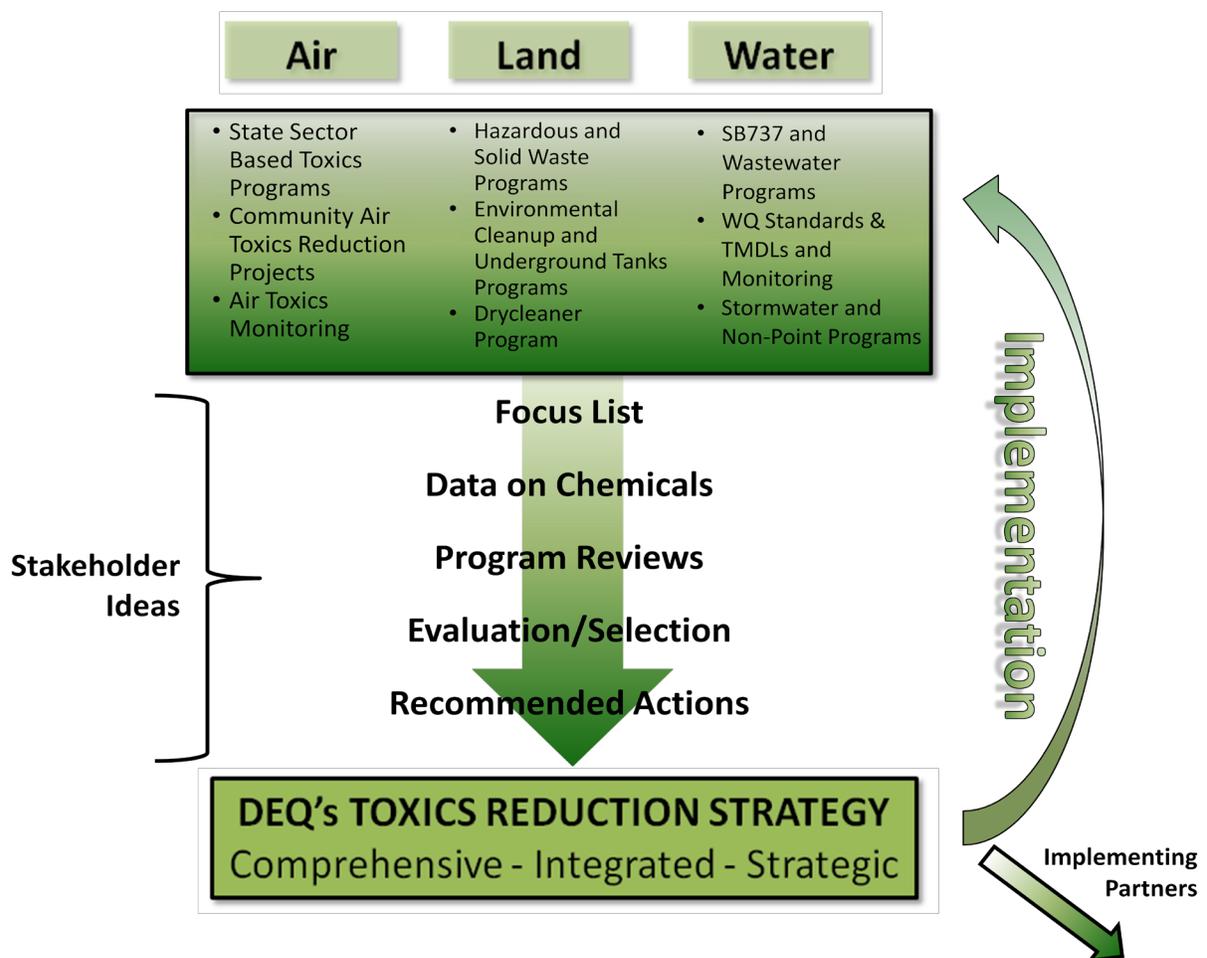


Figure 1: DEQ's Toxics Reduction Strategy

3. The Road to Proposed Rulemaking

Criteria adopted in 2004

Prior to DEQ's current efforts to develop proposed rules addressing human health criteria for toxic pollutants, DEQ developed and adopted rules in 2004. DEQ based these criteria on EPA's recommended criteria at the time, which used an assumed 17.5 grams per day fish consumption rate, which is approximately the amount of fish that fits on a cracker.

Tribes and EPA both expressed concerns about the protectiveness of criteria based on this value would, given the amount of fish that Oregonians consume. While DEQ adopted criteria based on EPA's national recommendations, EPA also pointed out its policy directing states to use local consumption information where available. They both pointed out Pacific Northwest studies documenting the consumption of greater amounts of fish by many populations.

Based on these concerns, DEQ agreed to revisit its water quality standards regulation addressing human health criteria for toxic pollutants.

In June 2010, EPA disapproved the majority of DEQ's human health criteria for toxic pollutants. They concluded the fish consumption rate used would be inadequate to protect Oregonians based on the amount of fish and shellfish they are known to consume. EPA's disapproval caused the majority of the 2004 water quality criteria to no longer be effective, leaving in place the previously effective criteria adopted in the late 1980's. The proposed human health criteria for toxic pollutants will address EPA's disapproval. Without revisions to Oregon's water quality standards to address EPA's disapproval, EPA must develop federal regulations for Oregon addressing their disapproval.

Developing the Proposed Rulemaking

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. Simultaneously, DEQ convened a public health expert advisory workgroup and charged them with evaluating the available and relevant fish consumption data and information. The [Human Health Focus Group Report: Oregon Fish and Shellfish Consumption Rate Project](#) contains the Human Health Focus Group's findings and is posted on DEQ's website. 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 committee wrote a memo to DEQ summarizing the committee's perspectives ([FIAC Memo to the Environmental Quality Commission](#)), which DEQ also posted on its website.

June 7, 2011

The workshops and input gathered through that process culminated in a joint three government recommendation to DEQ's Environmental Quality Commission (EQC) in October 2008. The three governments recommended DEQ pursue water quality standards revisions based on a 175 grams per day fish consumption rate. This rate represents a ten-fold increase from the fish consumption rate used in the 2004 water quality standards, and equates to approximately 23 eight-ounce meals per month. The EQC agreed with this recommendation and further 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;
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.

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. 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. Oregon Departments of Agriculture and Forestry also participated in workgroup discussions.

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.

4. Proposed Rulemaking

Actions Considered

In developing this rulemaking, DEQ considered proposed revisions for many areas of its water quality standards and implementing regulations. DEQ discussed the following areas of potential revisions with its stakeholder advisory workgroups and used the issue papers to evaluate rule revisions or other actions that could be taken.

June 7, 2011

- Revisions to human health criteria for toxic pollutants;
- Revisions to water quality standards and NPDES permitting rules to address high levels of background pollutants;
- Revisions to water quality standards to address circumstances where facilities may not have treatment technologies available to meet calculated limits in the NPDES permits;
- Revisions to TMDL regulations addressing the inclusion of air or land sources in the development of TMDLs;
- Revisions to water quality standards rules to allow the criteria revisions to be phased in over time or other revisions allowing time specifically for sources to comply;
- Revisions to water quality standards or other rules to address toxic pollutants that may adhere to sediment and transported through soil erosion;
- Revisions to water quality standards and TMDL rules to clarify how actions under the Agriculture Water Quality Management Act and Forest Practices Act meet water quality standards;
- Revisions to water quality standards and Internal Management Directives addressing how DEQ implements antidegradation;
- Revisions to NPDES permitting rules to address indirect discharges of toxic pollutants to municipal wastewater treatment facilities that are currently not included as part of the federal pretreatment program; and

Rules Being Proposed

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 constitute the core of DEQ's proposed rules. DEQ is proposing human health criteria revisions for toxic pollutants based on a fish consumption rate of 175 grams per day. 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 some instances, the proposed rules will be used for more than just the human health criteria. For example, some revisions could also be used to implement criteria that protect fish and other organisms that live in surface waters of the state. These revisions add to or, in some cases, revise current rules governing water quality standards implementation and may be used in a variety of situations. Some rules are intended to be used in situations where the water quality standards are being met; others target situations where water quality standards are not being met and sources may not be able to feasibly meet the necessary pollutant concentrations. The list below provides a brief description of each proposed rule item, including the circumstances in which DEQ or the source may use the regulation.

Intake Credits

DEQ is proposing a new “intake credit” provision in its NPDES regulation. DEQ would use this provision during the development of a facility’s NPDES permit where DEQ finds that background pollutants in a discharger’s intake water at high levels. As long as the discharger does not increase the mass or concentration of the background pollutants found in its intake water, DEQ would not require the facility to further reduce the pollutants in its discharge. This rule would apply to a relatively narrow set of situations and consequently, may not be widely used. The issue paper titled, “Implementing Water Quality Standards for Toxic Pollutants in Clean Water Act Permits” contains a further description of this rule.

Site-Specific Background Pollutant Criterion Provision

DEQ is proposing a new “site-specific background pollutant criterion provision” in its water quality standards regulation. This provision complements the proposed intake credit provision, also addressing the presence of high background pollutant concentrations in a discharger’s intake water. DEQ would implement the rule during the development of a facility’s NPDES permit when the facility can’t avoid increasing the pollutant concentration that comes in from their intake water. In that instance, DEQ would allow the facility to discharge its concentrated effluent as long as the receiving surface water pollutant concentration did not increase by more than a small amount (up to 3%). The provision would prohibit adding more of the pollutant to the surface water than is present in the intake water, would be limited to carcinogenic pollutants, and would constrain the surface water concentration increase to within the EPA-accepted cancer risk level of one in 10,000. DEQ may use this provision for facilities that concentrate process water through the cooling water evaporation, a process that increases the concentration of pollutants already present in their intake water. The issue paper titled, “Implementing Water Quality Standards for Toxic Pollutants in Clean Water Act Permits” contains a further description of this rule.

Variances with Pollutant Reduction Plan Requirement

DEQ is proposing significant revisions to its current water quality standards provision governing variances. DEQ and facilities interested in requesting a variance would use the revised provision when a facility could not immediately meet its permit limits based on water quality standards and where some uncertainty exists regarding when or if the requirements could be met. The revised provisions would allow NPDES permitted facilities to seek a short-term exemption from meeting water quality standards-based limits for a specific pollutant(s) and require a pollutant reduction plan to ensure progress toward meeting the water quality standards in the interim. While DEQ envisions the variance development and approval would most efficiently occur during the development and issuance of an NPDES permit, variance development and approval could also be used at any time during the term of the permit. The issue paper titled, “Implementing Water Quality Standards for Toxic Pollutants in Clean Water Act Permits” contains a further description of this rule.

June 7, 2011

Revisions to the Water Quality Standards and Total Maximum Daily Load Regulations to Address Nonpoint Sources

DEQ is proposing water quality standards regulation revisions 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 (FPA) and Agriculture Water Quality Management (AgWQM) Act. FPA rules are meant to be reviewed for their adequacy to meet TMDL load allocation when TMDLs are issued. AgWQM Area plans and rules are reviewed and revised every two years to ensure that the TMDL load allocations are met when area plans and rules are implemented.

DEQ proposes 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. DEQ anticipates additional rulemaking since the mechanism for addressing TMDL allocations through other media programs will need to be defined and described in the administrative rules affecting air and land quality programs.

Other Approaches Available Under Current Regulations

Meeting Water Quality Standards

DEQ currently uses a number of approaches to implement water quality standards in its Clean Water Act programs and to put requirements in place to meet water quality standards. The proposed rules would add to these current approaches and may, in some cases, be used in conjunction with these approaches.

DEQ issues NPDES permits that require dischargers to meet water quality standards. If a discharger can't immediately comply with water quality-based requirements, DEQ can use a compliance schedule as part of the permit to identify enforceable requirements and milestones the permittee must implement to achieve water quality standards-based requirements.

DEQ also develops Total Maximum Daily Loads (TMDLs) to bring impaired waterbodies into compliance with water quality standards and to support beneficial uses.

Further, the Oregon Department of Agriculture implements and revises Agriculture Water Quality Management Plans that provide guidance and rules to land owners and producers and provide an enforceable backstop to resolve water quality issues. The Oregon Department of Forestry implements the state's Forest Practices Act by enforcing management practices and guidelines to operators managing state and private forest lands to prevent water quality issues.

DEQ also has in place a current regulation addressing situations when the lowering of water quality may occur. The current water quality standards require that water quality achieves standards or is better than the water quality standards. No lowering of water quality may occur, except in specified circumstances and after involving the public in a decision as to whether the lowering of water quality is "necessary."

When information indicates that the water quality standards aren't being met

DEQ routinely reviews data from throughout the state to identify waters that don't meet water quality standards. In those instances, Oregon's current water quality standards prohibit further degradation of water quality as part of its antidegradation requirements. In addition, where DEQ identifies waters that don't meet water quality standards, it must prepare a TMDL. The objective of the TMDL is to calculate the assimilative capacity of water bodies, also referred to as the loading capacity. Designated Management Agencies (DMAs) are then responsible for implementing TMDLs for nonpoint sources under their jurisdiction to meet standards. Point sources are responsible for implementing TMDLs through permits. In addition, when DEQ writes permits for discharges to these waters, DEQ puts in place appropriate requirements to support this objective both in advance of the TMDL development, which allocates pollutant loads, and in the writing of permits to reflect the TMDL after it's developed.

When information indicates the water quality standards can't be achieved

DEQ expects that in some circumstances a water body may not be able to achieve water quality standards. In these cases, DEQ may look at the water quality standards and evaluate whether the water body goals are the correct ones. In addition, DEQ may evaluate whether natural or other conditions make it a priority for DEQ conduct further evaluation of relevant scientific information. DEQ followed this approach in its recent proposed rulemaking addressing the iron, manganese, and arsenic criteria, where natural conditions resulted in widespread exceedances of the human health criteria. DEQ can use approaches authorized by the current water quality standards to change the water body goals or uses or to change the criteria based on an evaluation of scientific data and information. DEQ has not frequently made these types of changes to its water quality standards in the past, but recognizes that these types of changes may need to be considered in the future.

5. Implementation Strategies

In addition to the proposed rule revisions, DEQ is developing Internal Management Directives to address additional details regarding the implementation of the proposed rules. DEQ routinely develops these types of documents to provide direction to its staff regarding how the rules should be implemented in its programs. These documents can also provide information that would be helpful to interested parties about how the rules would be implemented, including how DEQ intends to make decisions and the data and information DEQ would use in the rules' implementation.

Based on the rules proposed, DEQ plans to develop or amend current Internal Management Directives to address the following proposed rules:

- **Variations with pollutant reduction plans** – DEQ will describe the types of data and analysis facilities will need to submit, how it will evaluate the information in deciding to approve a request for a variance, the necessary elements of pollutant reduction plans, and how variances would be evaluated and approved in conjunction with the permit issuance process.

- **Intake credits** – DEQ will include intake credit guidance to DEQ staff in the Reasonable Potential Analysis Internal Management Directive.
- **Site-specific background pollutant criterion provision** – DEQ will describe how it will establish water quality-based limits in instances where the site-specific background pollutant criterion allowance applies.
- **TMDL implementation** – DEQ will clarify how it will develop and ensure more effective implementation of TMDLs, including the possibility of assigning load allocations to significant land and air sources.

To provide additional information to interested stakeholders regarding how DEQ may implement the proposed rule revisions, DEQ published detailed outlines of the Internal Management Directives (with the exception of intake credits, since DEQ expects the guidance to simply describe calculations) on its website to accompany the proposed rules that went out for public comment. DEQ further developed the Internal Management Directives as it worked on finalizing the proposed regulations and developed draft IMD documents for variances and TMDLs based on the rules proposed in December 2010. DEQ will complete final IMDs for variances and TMDLs as well as additional IMDs relevant to this rulemaking that will reflect the final rules adopted by the EQC. These final IMDs will be completed following EPA approval of the rules.

6. Rule Revisions DEQ is Not Pursuing

DEQ evaluated a number of potential rule revisions that it did not include as part of the proposed rules. The revisions not pursued include:

- Revisions to water quality standards or other rules to address toxic pollutants that may adhere to sediment and transport through soil erosion;
- NPDES permitting rule revisions to address indirect toxic pollutant discharges to municipal wastewater treatment facilities currently not included in the federal pretreatment program;
- Revisions to water quality standards and Internal Management Directives addressing how DEQ implements antidegradation;
- Water quality standards rule revisions to allow the criteria revisions to be phased in over time or other revisions allowing time specifically for sources to comply;

DEQ evaluated several different factors in concluding that it would not pursue rule revisions specifically targeting these areas at this time. These factors included whether federal and state regulations would allow the approach, whether the approach would achieve the desired environmental outcome, whether DEQ has the appropriate authority and resources to implement the revisions, and whether the scientific information currently available supports the approach contemplated. DEQ evaluated these factors with input from the stakeholder advisory committees, EPA, DEQ staff and management, and other state agencies that share regulatory oversight of nonpoint source activities to protect water quality. The issue papers published on DEQ's website in conjunction with the proposed rules describe the specific rule revisions considered, DEQ's evaluation of the potential revisions, and why it recommends not pursuing regulations at this time.

June 7, 2011

In several instances, DEQ has actions underway or is proposing actions related to the areas discussed. Specifically, DEQ recommends the following alternative approaches:

- **Toxic pollutants associated with sediments.** DEQ recommends continuing its efforts to implement current water quality standards provisions related to this issue. DEQ will continue its efforts to address excess sedimentation as it assesses and develops TMDLs for waters identified as having sedimentation issues. DEQ will also continue to work with the Departments of Forestry and Agriculture regarding the control of sediment and prevention of erosion to keep sediment-bound mercury (deposited from the air onto the soil) and legacy pollutants (e.g. DDT) out of water bodies. DEQ's Pest Management and Pesticide Stewardship Partnership efforts will continue its focus on keeping current use pesticides out of water bodies through ongoing Integrated Pest Management as well as erosion control.
- **Implementation of Antidegradation for Nonpoint Sources.** DEQ will review the current antidegradation policy and implementation plan and evaluate what actions or measures are needed to implement the antidegradation policy for nonpoint sources. DEQ proposes to add a chapter to its existing internal management directive describing the process or actions the department will take to implement the antidegradation policy for nonpoint sources, including actions that involve working with other state, federal and local agencies.
- **Toxic pollutant discharges to municipal wastewater treatment facilities.** As part of the variance proposed rule language, a POTW must demonstrate that it has the legal authority (such as a sewer use ordinance) to regulate the pollutant for which the variance is sought. In addition, DEQ will continue to support municipalities in implementing the federal pretreatment rules and encourage any POTW efforts to adopt sewer use ordinances or other pollution control practices.

7. Conclusion

The proposed water quality standards revisions represent a significant improvement in the protecting Oregonians. The fish consumption rate used more accurately represents the fish known to be consumed by Oregonians. In addition, this rulemaking will remove the need for EPA to put in place regulations for Oregon. DEQ has worked to incorporate feedback from interested parties for over four years, and will continue to do that with this proposed rulemaking.

DEQ heard from cities and businesses that are likely to be affected by this proposed rulemaking. DEQ performed an evaluation of the existing data and information to try to evaluate the potential impacts of this rule, but in many cases, the data and information are not available to reach solid conclusions. DEQ will put in place regulatory requirements stemming from these rules, once adopted by the Environmental Quality Commission and approved by EPA, as permits are renewed, water quality data collected and evaluated, and TMDL analyses done to further evaluate pollutant sources within watersheds. Some of these actions will occur soon after EQC adoption and EPA approval, others will occur over time as data and information become available. DEQ and sources will have more information

June 7, 2011

and gain more knowledge through this process in addition to gaining more experience implementing the proposed rules. DEQ may conclude that it would prefer alternative regulatory approaches, which may include proposals discussed during this rulemaking but not pursued, or other regulatory approaches altogether. In this case, DEQ may need to develop further revisions to its water quality standards rules.

Throughout DEQ's development of these proposed rules, DEQ has continued its efforts to prevent toxic pollutants from entering Oregon's environment, recognizing the toxic pollutants do not respect typical boundaries DEQ and others typically set through its programs. Many of DEQ's programs target toxic pollutants that may originate as releases into the air, into the soil and into the waters of the state. DEQ continues to implement these programs and pursue new approaches it finds can be effective as reducing and preventing toxic pollutants in our environment. DEQ also recognizes that where toxic pollutants exist at high levels, the most effective approaches to reducing the pollutants result from comprehensive programs and collaborative efforts. The Toxics Reduction Strategy is one such comprehensive effort that will evaluate many of the proposals brought to the table through this rulemaking process as well as many others that have been suggested that are broader than what DEQ evaluated as part of this process. DEQ expects the recommended actions to build upon not just DEQ's efforts and programs, but to look build upon other groups' efforts to result in the most effective actions.