DEPARTMENT OF
ECOLOGY
State of Washington

Rule Implementation Plan

Water Quality Standards for Surface Waters of the State of Washington

Revisions to Chapter 173-201A WAC

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Implementation Plan for Preliminary Draft Revisions to Chapter 173-201A WAC

Purpose

The Department of Ecology (Ecology) provides the information in this implementation plan to meet agency and Administrative Procedure Act (RCW 34.05.328) requirements related to rule adoptions.

Introduction

On September 30, 2014, Ecology released a preliminary draft of revisions to Chapter 173-201A WAC Water Quality Standards for Surface Waters of the State of Washington. These changes will be to adopt toxic criteria to protect human health and language on implementation tools. The purpose of this preliminary draft rule implementation plan is to inform those who must comply with Chapter 173-201A WAC about how Ecology intends to:

- Implement and enforce the rule.
- Inform and educate persons affected by the rule.
- Promote and assist voluntary compliance for the rule.
- Evaluate the rule.
- Train and inform Ecology staff about the new or amended rule.

Also included in this plan is information about:

- Supporting documents that may need to be written or revised because of the new rule or amended rule.
- Other resources where more information about the rule is available.
- Contact information for Ecology employees who can answer questions about the rule implementation.

In general, Ecology would implement and enforce the proposed changes in the draft rule (after final rule adoption and upon rule effective date) in the same way the current rule is implemented and enforced. The preliminary draft rule changes include human health criteria for surface water (WAC 173-201A-240) and three separate implementation tools: variances (WAC 173-201A-420), compliance schedules (WAC 173-201A-510(4)), and intake credits (WAC 173-201A-460). The proposed modifications to the variance and compliance schedule language are changes to existing language. The proposed human health criteria and the proposed intake credit language are new sections added to the rule.

Summary of proposed changes

The proposed rule revision would result in several important changes to the state standards:

New human health criteria for surface waters.
(1) Numeric criteria. The proposed human health criteria are water concentrations for 96 toxic substances to protect people who consume fish and shellfish from local waters and who drink untreated water from local surface waters. These criteria are calculated from a variety of different factors, including chemical-specific toxicity to humans, how chemicals move from water into fish and shellfish and then into humans, as well as other factors. The criteria

calculation and these factors are discussed at more length in the Overview of Key Decisions document section on Human Health Criteria Equations and Variables. Specific sections on PCBs and arsenic are found in the Overview of Key Decisions document. The arsenic approach includes specific language on arsenic reduction efforts to protect Washington surface waters. Thus, the preliminary rule contains a mix of (1) calculated criteria values, and (2) values based directly on the National Toxics Rule (NTR) as part of the overlain risk management decision described above. This does not apply to arsenic, where the preliminary draft proposal is a value based on the Safe Drinking Water Act.

Implementation tools

(2) Variances: Variances are temporary changes that waive the Surface Water Quality Standards (WQS) for a specific chemical and designated use for either a single discharge or for multiple discharges, or for specified stretches of surface waters (e.g., for a specific tributary, a lake, a watershed, etc.). Variances are used in situations where it can be demonstrated that: (1) a discharge can meet the permit limit or a water body can meet the criteria and designated use, but needs a longer time frame than allowed in a compliance schedule, or (2) it is not known whether the discharge will ever be able to meet the permit limit or a receiving water body's criteria and designated use. Because a variance is a temporary change to a criteria and use, variances are considered changes to the Water Quality Standards (WQS) and must go to EPA as a rule amendment.

The current WQS give a brief list of the requirements for granting variances, including a maximum five-year time frame. The federal and state requirements for variances are brief, and demonstrating the need for a variance could be very labor intensive, depending on the specific situation. More detailed specifications in the WQS will help set clearer expectations for both discharges and the state, and will result in more predictable outcomes for dischargers.

This proposed rule-change does not grant any specific variances to WQS. Instead, this proposed rule change gives more details on the information requirements for granting variances and on the types of actions that would be required of dischargers during variance periods. This includes a proposal to extend the duration of variances beyond five years if necessary.

(3) Compliance schedules: Compliance schedules are tools used in Ecology discharge permits, orders, or other directives that allow time for discharges to make needed modifications to treatment processes in order to meet permit limits or requirements. They are commonly used for construction and treatment plant upgrades, and cannot be used for new or expanding discharges. Compliance schedules are used when there is an expectation that the discharge will meet permit limits at the end of the schedule. The current WQS contain a maximum time limit of ten years for compliance schedules. In 2009 the Washington legislature passed a law requiring Ecology to develop longer compliance schedules for certain types of discharges. This preliminary draft rule follows that legislative direction by removing the maximum time limit for compliance schedules. This approach applies to compliance schedules for the National Pollutant Discharge Elimination System **(**NPDES) permits.

(4) Intake credits: Intake credits are a permitting tool that allows a discharge limit to be calculated in a way that does not require the discharger to "clean-up" pollutants in the discharge beyond the level of intake water when the intake and receiving water body for the discharge are the same water body. This tool is currently used for technology-based limits, but Washington does not have a regulation that allows use of this tool to meet limits based on water quality criteria (a.k.a. water quality-based limits). This tool is used to meet water quality-based limits in several other states, including Oregon and the Great Lakes states.

This preliminary draft rule contains language describing how and when intake credits could be used.

Guidance

Ecology intends to develop guidance to assist Ecology staff and others to implement the final new and revised portions of the rule. This will help ensure the new criteria and implementation tools are consistently applied by Ecology. This future guidance will be available online and will be updated as experience implementing the new standards warrants. See List of Supporting Documents of this document for a complete list of guidance that will be done to support this rule.

Incorporating and implementing rule revisions

Approval of the New Standards by the USEPA

The rule becomes effective 31days after the final rule adoption. However, the state water quality standards must also be approved by EPA to determine that the revisions in the rule comply with the federal Clean Water Act. Clean Water Act approval may require EPA consultation on portions of the final rule that could affect ESA-listed aquatic species.

EPA can take one of the following courses of action on the state's new rule:
1. Approve within 60 days of submittal
2. Disapprove within 90 days of submittal
4. Partially approve or partially disapprove portions of the revised rule.

EPA has informed Ecology that the intake credits portion of the proposed rule is "not a water quality standard," and thus that portion of the future rule will not require Clean Water Act approval, and will be available for use 31 days after filing.

Ecology will keep the public up-to-date and informed on how federal approval of the new rule is proceeding.

List of impaired waters - 303(d)

Periodically, Ecology produces a list of impaired waters that do not meet the water quality standards. This list is commonly called the 303(d) list, since the requirements come from Section 303(d) of the federal Clean Water Act. The existing federal human health criteria issued to Washington in 1992 (and as revised in 1999) are being used to develop the 303(d) list for 2014. Future 303(d) lists will use the water quality standards that have been adopted and approved at the time the 303(d) list is compiled. If adopted, these new water quality standards will be used to determine impaired water bodies for future listings.

Total maximum daily loads (TMDLs)
There is continuous ongoing TMDL work that will be in various stages of completion once the standards are finalized. This chart describes how Ecology plans to manage that work once the standards become effective.

TMDL Status	Transition Solution
1. TMDL formally approved, submitted, or ready to be submitted	• Keep TMDL in place, even if criteria in the new rule is different • Continue implementation measures • Monitor compliance with TMDL allocations • Compare TMDL targets to new criteria, but not required to change targets • Water body will be placed in category 4a: Has a TMDL - in accordance with the new 303(d) listing policy
2. TMDL not yet approved, but field work completed and report may or may not be completed	• Proceed with submittal of TMDL package prior to the effective date of newly adopted standards • The Summary Implementation Strategy in the TMDL needs to address monitoring plan to pick up new criteria if possible • Possible exceptions requiring closer evaluation involve point source dominated TMDLs
3. TMDL study in progress and field work begun but not completed	• Continue study but include new criteria, if possible • Analysis may still be based on old criteria • Extent of inclusion of new criteria depends on individual study and the difference between the old and new criteria • Develop monitoring plan that incorporates new criteria
4. TMDL study planned and no field work yet begun	• Include new criteria in study design and sampling and drop old criteria
5. 303(d) listed but no priority set for doing study	• Retain on 303(d) list • Continue to scope and schedule projects. When projects are selected for work, the project would be treated the same as in (4) above

Revisions to the toxics table
Proposed changes to the format of the toxics table: Permit writers will need to refer to the new proposed toxics table in WAC 173-201A-240 to determine the new proposed criteria.

Changes to all criteria will be implemented when permits are renewed or when new permits are issued.

Permits
There is ongoing permit work that will be in various stages of completion once the standards become effective. This table describes how Ecology plans to manage that work once the standards become effective.

Permit Status at the Date of Adoption	Transition Solution
1. Public notice completed	Issue permit but make sure applicant understands that new rules were just adopted and might cause changes in the next permit.
2. Entity review completed but public notice not started. New standards don't affect reasonable potential or the limits.	Go to public notice with permit
3. Entity review completed but public notice not started. New standards cause reasonable potential and effluent limits	Go to public notice with the permit. Prior to notice, Ecology will first estimate whether the reasonable potential determination would likely change if the standards get approval from EPA and whether it would make a significant difference to our decision and conditions.
4. Entity review not begun	Use new criteria to do reasonable potential and effluent limits.

401 Certifications

Ecology will issue 401 Certifications based on the standards that are in effect when the certification is issued. When Ecology goes to public notice, it can estimate how the certification might change if the proposed WQS become effective (after approval from EPA) prior to issuance of the certification, and whether it would make a significant difference to Ecology's decision and conditions.

All certifications that go to public notice after the standards are revised should be based on the new standards.

Informing and educating persons affected by the rule

Ecology will inform and educate affected parties through ongoing, already established meeting venues, holding specific meetings, doing outreach to our email listserve, and using our website.

Previous activities

Affected persons and the public have been informed and educated about the potential and proposed changes to the water quality standards over the past several years. Since this rulemaking began in 2012, there have been numerous technical and policy forums, stakeholder discussions, and public workshops and meetings. Statewide public workshops were held on several occasions prior to publication of the preliminary draft rule. The most recent comprehensive stakeholder meetings were a public meeting on November 6, 2013 and a Delegate's Table meeting on February 10, 2014.

Current activities

For the release of the preliminary draft rule, Ecology emailed announcements to approximately 1000 individuals on our WQS listserve informing them of Ecology's preliminary draft changes to the water quality standards. All of the preliminary draft changes to the water quality standards are available to the public on Ecology's website. (http://www.ecy.wa.gov/programs/wq/swqs/Currswqsruleactiv.html). This material includes the proposed regulatory language and supporting documentation. The water quality standards ListServ will continue to provide updates. Interested persons can obtain written material upon request.

Future activities

When a formal proposed draft rule is released, public meetings and hearings on the formal draft rule proposal will be held. The purpose of these workshops and hearings will be to inform and educate the public on the reasons for the proposed changes and to give the public an opportunity to ask questions and formally testify on the proposal. During the formal public comment period, Ecology will also consult directly with tribes and interested parties can submit written comments.

After final rule adoption, Ecology will work with interested parties to prioritize guidance document needs. Currently, it is anticipated that guidance on implementation tools (variances, compliance schedules, and intake credits) and pollution reduction activities for arsenic will be the initial primary focus for guidance development.

Ecology will continue to be available to external interests after final rule adoption to explain the final rule changes.

Ecology will also prepare a formal package with the final rule and supporting documentation, to submit to EPA for approval. Until EPA gives written approval of the state's new standards, they cannot be used for federal actions (including NPDES permitting and 401 certifications).

Promoting and assisting voluntary compliance

Ecology will provide direct technical assistance to any entity that requests it. Ecology will continue to work with key interests that are covered under the water quality standards. Ecology continues to encourage voluntary compliance with the water quality standards. Ecology supports numerous water quality programs that, at least in part, promote voluntary compliance:

- Total maximum daily loads (TMDLs)
- Nonpoint pollution programs
- Federal and state grants and loans
- Ongoing technical assistance from permit writers and compliance staff

These programs provide a great deal of financial and technical support to entities voluntarily complying with the water quality standards.

Evaluating rule

Ecology is required to report on progress made implementing the water quality standards through our 303(d) reporting requirements to EPA. We will identify waters that are meeting these criteria, not meeting these criteria, or are scheduled for a TMDL.

The purpose of the surface water quality standards is to restore and maintain the chemical, physical, and biological integrity of Washington's waters. More specifically, the water quality standards are designed to protect public health, public recreation in the waters, and the propagation of fish, shellfish, and wildlife. The numeric and narrative criteria in the water quality standards are intended to protect those beneficial uses.

The final changes to the water quality standards will be considered to have achieved their purpose if they fully protect the beneficial uses. The water quality standards should also protect those beneficial uses in the least burdensome way.

Interim milestones: The preliminary draft rule language on compliance schedules and variances include requirements for interim milestones to meet water quality standards. These milestones include interim permit limits and proposed language on future use of interim water quality criteria and designated uses, and pollution reduction activities (if variances are adopted in subsequent rule changes).

Objectively measurable outcome: Outcomes of the rule can be measured if water quality standards are attained. Ecology monitors surface waters across the state to determine whether designated uses are being met. Monitoring data (meeting requirements of the Data Quality Act; RCW 90-48-570 to 90-48-590) will be used to determine whether designated uses are met.

Training and informing agency staff

A rule-making of this magnitude will require broad outreach to permit writers and other staff and management involved with water quality regulation. This will be done through meetings, email communication, written guidance and one-on-one communication. After final adoption of the rule, Ecology will notify all Water Quality Program staff, as well as staff from other programs that would use the new criteria or tools, again after EPA has finished its Clean Water Act (CWA) review of the newly adopted standards. The proposed intake credit provision would be available for use immediately after adoption of the rule because this provision does not require EPA CWA review. However, other new provisions will need CWA review and approval before use. Below are examples of staff resources to address training and information sharing related to the final rule.

NPDES permits and 401 certifications: The Water Quality Program will provide training for the Ecology permit writers on changes to the rule and to permit writer's guidance. In addition, permit writers are given the opportunity to review and comment on changes to Ecology's *Water Quality Program Permit Writer's Manual*, which will contain the new guidance on how to implement the final rule changes. Permit writing tools and templates and forms will be updated to account for provisions in the final rule, and permit writers will be notified of changes. Most changes to the guidance discussed here would need approval from the program management team represented by both regional and headquarters management. Thus, the permit writing staff

will also receive reinforcement from their local management regarding use of new guidance. Ongoing support is provided by Ecology's Permit Writer's Workgroup, made up of permit writers who meet quarterly to discuss emerging issues and facilitate communication throughout the regions and across other programs with staff who issue permits.

Water Quality Assessment: The staff working with the Water Quality Assessment will be involved in determining any new approaches that are needed in order to assess Washington waters for compliance with the final human health criteria. Portions of that group are already involved with the preliminary draft rule via the development of information to support the Administrative Procedures Act-required preliminary Cost Benefit Analysis. This group will continue to be involved with the Cost Benefit Analysis until the final rule is adopted, and will be aware of all changes to criteria that will affect how surface waters are assessed.

Total maximum daily loads:
The TMDL staff at Ecology's regions will be informed of changes to the standards through TMDL implementation workshops and *Water Quality Program Permit Writer's Manual* notifications.

Additional training on implementation of the revised water quality standards will also be made available to those staff upon request.

List of supporting documents that may need to be written or revised

Guidance and other documents that will need to be developed or revised:

- Ecology's *Water Quality Program Permit Writer's Manual* will need be modified to include new guidance on:
    - Compliance schedules
    - Water quality-based intake credits
    - How requirements in a variance are placed in permits
    - Arsenic reduction efforts. The new arsenic criteria are paired with arsenic source reduction requirements. How those requirements are specified in permits will be described in the Permit Writers Manual.
    - How the duration of exposure (lifetime or other exposure assumptions) is considered in human health criteria implementation.
- Permit templates, Fact Sheet templates, and permit application forms will need to be updated to reflect the new criteria and tools.
- PermitCalc (Ecology's permit spreadsheet tool) will need to be updated.
- Materials available to the public (e.g., web sites, Focus Sheets) will need to be updated to reflect the final rule.
- The Water Quality Assessment and the 303(d) listing policy (Ecology Water Quality Program Policy 1-11) will need to be revised to reflect the new rule. Specifically, a new

policy on the assessment and listing process for the new arsenic criteria will need to be developed. The current policy uses fish tissue as the basis of listing for human health criteria impairments. The new arsenic criteria are water concentrations for total arsenic – there is no bioconcentration factor included in this chemical's criteria development (the criteria cannot be equated with tissue concentrations), and the criteria are based on the drinking water exposure route. The new criteria are expressed as a total measure in the water column (not inorganic, filtered, or dissolved). The basis of the new criteria concentrations is the Safe Drinking Water Act Maximum Contaminant Level (MCL). The MCL was developed with consideration of the carcinogenicity of arsenic.

- Variance guidance describing the general and specific requirements for different types of variances (individual or multiple discharger, water body) will need to be developed. The variance guidance might be combined with the current draft guidance on Use Attainability Analysis (both variances and use attainability analyses are based on similar federal guidance and requirements) or could be a stand-alone document.
- Listings of all active variances will be made available to the public on the web.

More information

For additional information go to Ecology websites noted below::

Rule making website:
http://www.ecy.wa.gov/programs/wq/swqs/Currswqsruleactiv.html

Water Quality Standards website:
http://www.ecy.wa.gov/programs/wq/swqs/index.html

Contact information
For a better understanding of the human health criteria and implementation rules contact:

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