WQS Implementation Tools and Planned Changes to Address Short and Long-term Pollution Control Activities

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Where does this rule-making fit?

Integrated Pollution Control Strategy to Reduce Pollutant Concentrations in the Environment			
Three separate but concurrent processes support the Integrated Pollution Control Strategy			
Timeline	**Process 1. Water Quality Program Rule Revisions**	**Process 2. Fish Consumption Rate Technical Support Document**	**Process 3. Sediment Management Standards (SMS) Rule Revision**
Fall. 2011 – Fall 2012	Implementation Tools Rule-making	Conference – Dec. 12, 2011 Public comment ends Jan. 18 2012	SMS Rule-making
Fall 2012 - 2014	Human Health Criteria (HHC) Rule-making		

What are Implementation Tools?

- For purposes of this rule-making to address **short and long-term source control activities**, implementation tools are those regulatory tools contained in the water quality standards (WQS) that allow Ecology to grant compliance with WQS while activities to meet WQS are ongoing. These include variances and compliance schedules.
- Focus is on tools that address time-lines for compliance.

Why look at modifications to the current tools?

- Current tools are limited to 5 and 10-year time frames
- TMDLs and regular permitting situations sometimes result in permit-required control activities that will require more than 10 years to attain compliance with WQS (e.g., nutrient controls and toxics controls)
- We need a mechanism to get past the 10-year "wall" and grant compliance while longer-term efforts to meet criteria are ongoing

How does this rule-making tie into the broader Integrated Source Control strategy?

Long-term strategies to address environmental contamination and recontamination of different media (e.g., sediments, water, tissues) will be facilitated by this rule-making:

- NPDES-permitted discharges with source control requirements based on meeting standards will have time to address long-term controls and still remain in compliance.

Rule-making is to address compliance during long-term activities that are focused on meeting WQS

Key concepts

- Focus is on meeting CWA requirements – meet criteria and protect uses
- Focus is on extended timelines, where needed, that are tied to activities to meet CWA requirements
- Focus is on providing a predictable regulatory environment through clear and relevant timeframes for pollution control activities to occur
- **Focus is on accomplishing short-term work (already covered by WQS) and facilitating long-term work**

What are we calling short-term and long-term?

Example: Temperature controls

Timeframe	Activities
Short-term **1-10 years**	**Erosion controls started** **Trees planted** **POTW cooling alternatives examined and available fixes made** **Guarantees and agreements for continued activities in place**
Long-term **10-40 years**	**Erosion controls continued** **Trees grow** **POTW continues to examine ways to reduce effluent temperature** **Other actions**
Year 40	**Criteria met**

Tools that can address compliance during long-term activities focused on meeting WQS

1. **Variances – WAC 173-201A-420 (current language)**

- Temporary waiver from meeting water quality standards that must be re-evaluated periodically in order to be renewed. Applicable to dischargers or waterbodies based on specific evaluations.
- May be issued by Ecology for up to 5-years. May be renewed.
- A variance requires a WQS rule modification and USEPA CWA review and approval (including ESA consultation for ESA-applicable rule changes)

Tools that can address compliance during long-term activities focused on meeting WQS

2. **Compliance schedules – WAC 173-201A-510(4)** (current language)

- Applies to existing discharges
- Up to 10 years if needed
- Requires final limits based on WQ criteria and interim limits that are either numeric or non-numeric (e.g., construction of facilities by a specific date; source identification and controls by specific dates)

Legislative direction to address compliance schedules

2009 RCW 90.48.605 - Amending state water quality standards – Compliance schedules in excess of ten years authorized

"The department shall amend the state WQS to authorize compliance schedules in excess of ten years for discharge permits … that implement allocations contained in the total maximum daily load under certain circumstances…"

Legislative direction to address compliance schedules (cont.)

Compliance schedules may exceed 10 years if the department determines:

1. The permittee is meeting requirements under TMDL ASAP
2. The actions in compliance schedule are sufficient to achieve WQS ASAP
3. The compliance schedule is appropriate
4. The permittee is not able to meet its WLA solely by controlling and treating its own effluent.

Are there other tools available to address long-term control activities?

- We don't see a lot of tools to address long-term pollution control activities and related compliance issues.
- The Oregon process to address implementation tools for toxics regulation was comprehensive, and many alternatives were examined, but relatively few tools were found.
- Summary of ODEQ and USEPA 12/13/11 info later in presentation

What will Ecology focus on as we move forward with rule-making?

Changes to the current WAC language for both variances and compliance schedules.

Compliance schedules

Current WQS language (WAC 173-201A-510(4))	Possible change
"…may in no case exceed ten years, and shall generally not exceed the term of any permit."	Extend maximum compliance schedule to 20 years for special circumstances as per legislature's directive: For permits that implement allocations contained in the total maximum daily load under certain circumstances… • The permittee is meeting requirements under a TMDL ASAP • The actions in compliance schedule are sufficient to achieve WQS ASAP • The compliance schedule is appropriate • The permittee is not able to meet its WLA solely by controlling and treating its own effluent. **In addition: All infrastructure and legal agreements in place within first ten years.**

When would the longer compliance schedule be used?

Example:

- A TMDL requires significant reductions in nutrient inputs to meet downstream DO criteria.
- POTW cannot remove enough nutrients to meet DO criteria (some reductions are possible), but can work with other sources (e.g., nonpoint sources) to effect overall reductions over time so criteria will be met.

Compliance Schedule example (cont.)

Interim limits in permit would provide milestones for control of nutrients and final limit would reflect meeting the criteria.

Timeframe	Activities
Years 1-10	**All infrastructure and legal agreements in place** **POTW evaluation of nutrient removal** **Nutrient removal infrastructure in place** **Offsets evaluated and agreements made** **Activities in place (e.g., treatment, erosion controls, riparian habitat restoration)**
Years 10-20	**Continued evaluation of additional sources** **Continued source control activities**
Year 20	**DO criteria met**

Variances - Possible changes

Current WQS language (WAC 173-201A-420)	Possible change
Variance can last up to 5 years	Variance last up to 3-4 decades (**if needed**)
Reasonable progress is being made toward meeting the original criteria	Variances tied to pollution control activities that are required in permits or orders
Variance can be renewed after providing for public and intergovernmental involvement and review	Variances reviewed as part of a public process every 5 years – if variance no longer needed then variance revoked. EPA involved with review.

What would likely not change: A variance is a rule change that requires formal Ecology rule-making and rule adoption with EPA CWA approval (and ESA consultation if applicable).

When would this variance allowance likely be used?

When a normal 10-year or TMDL-driven 20-year compliance schedule is not long enough to meet criteria and protect uses.

Most, but not all, variances would be TMDL-driven

Example of a situation that could drive a long-term variance strategy

Example:

- A legacy pesticide is causing exceedances of human health-based criteria (HHC) and impairing the CWA "fishable" use
- TMDL source study shows that pesticide sources are widespread (e.g., coming from POTW discharge, stormdrains, NPS runoff, sediments)
- An integrated strategy requiring comprehensive source investigation and control is needed. Work on POTW and stormwater collection systems, erosion control, sediment and upland clean-up and natural attenuation might all be needed to meet the criteria and protect the use.
- Implementing this strategy will take decades.

Variance example (cont.)

Implementing this strategy will take decades

Time Frame	Activities
Pre-variance	**TMDL** **Information to support variance prepared** **Rule-making and EPA CWA approval**
Years 1-10	**Source tracking** **Source controls (e.g. erosion control, stormwater controls)** **Develop integrated, comprehensive source investigation and control program: could include POTW and stormwater collection systems, erosion control, sediment and upland clean-up and evaluation of natural attenuation** **Begin implementation of program** **Infrastructure and legal agreements in place**
Years 11- 35	**Implement comprehensive source investigation and control program**
Year 35	**Meet criteria and designated uses attained**

How often would long-term tools be used?

- We expect some use based on current and future needs, but each situation will be different and will require a site-specific assessment
- Goal is to meet criteria as soon as possible.
- Most use will be driven by TMDLs, so likely a geographic focus for numbers of variances or compliance schedules (e.g., one or more dischargers, waterbody variances)

Summary: ODEQ Presentation 12/13/11

Extensive process focused on more protective HH criteria, many implementation options examined but few found

Final rules reflect 2 new rules and 1 revised rule

- Intake Credits (OAR 340-045-0105)
- Variances (OAR 340-041-0059)
- Site-specific Background Pollutant Criterion
- **ODEQ Toxics Rulemaking Website:** ***http://www.deq.state.or.us/wq/standards/humanhealthrule.htm***
- ***ODEQ presentation from 12/13/11:*** ***http://www.ecy.wa.gov/programs/wq/swqs/RuleRev2011.html***

Summary: USEPA Presentation 12/13/11

All rule changes will be evaluated for compliance with CWA
"Does this rule language meet the requirements of the CWA?"

The ODEQ process was extensive

- Recommendation to use the information from that process to inform WA process

Implementation choices are limited

- Recommendation to not redo work that has already been done

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Presentation Summary

- Limited number of tools that could be used to facilitate long-term pollution control strategies
- Those tools could get us past the 10-year "wall" of the current standards language.
- Focus on variances and compliance schedules
- Revised WQS language would need to ensure that requirements for both short and long-term activities are clearly tied to extended compliance schedules or long-term variances

Ecology WQS contacts and information

Staff	Web sites	
Cheryl Niemi 360-407-6440 Cheryl.niemi@ecy.wa.gov	Washington Water Quality Standards: https://fortress.wa.gov/ecy/publications/SummaryPages/0610091.html	Water Quality Standards Rule-making: http://www.ecy.wa.gov/programs/wq/swqs/RuleRev2011.html
Becca Conklin 360-407- Becca.conklin@ecy.wa.gov	Washington Water Quality Standards Triennial Review and 5-year Plan: http://www.ecy.wa.gov/programs/wq/swqs/triennial_review.html	All-purpose portal for WQS, sediments, and fish consumption rates: Reducing Toxic Chemicals in Fish, Sediments, and Water: http://www.ecy.wa.gov/toxics/fish.html

Comments/Questions

Additional Information for Audience

WA WQS language for Compliance Schedules

- **WAC 173-201A-510(4)**
- (4) **General allowance for compliance schedules.**
- (a) Permits, orders, and directives of the department for existing discharges may include a schedule for achieving compliance with water quality criteria contained in this chapter. Such schedules of compliance shall be developed to ensure final compliance with all water quality-based effluent limits in the shortest practicable time. Decisions regarding whether to issue schedules of compliance will be made on a case-by-case basis by the department. Schedules of compliance may not be issued for new discharges. Schedules of compliance may be issued to allow for:
  - (i) Construction of necessary treatment capability.
  - (ii) Implementation of necessary best management practices.
  - (iii) Implementation of additional storm water best management practices for discharges determined not to meet water quality criteria following implementation of an initial set of best management practices.
  - (iv) Completion of necessary water quality studies; or
  - (v) Resolution of a pending water quality standards' issue through rule-making action.
- (b) For the period of time during which compliance with water quality criteria is deferred, interim effluent limitations shall be formally established, based on the best professional judgment of the department. Interim effluent limitations may be numeric or nonnumeric (e.g., construction of necessary facilities by a specified date as contained in an ecology order or permit).
- (c) Prior to establishing a schedule of compliance, the department shall require the discharger to evaluate the possibility of achieving water quality criteria via nonconstruction changes (e.g., facility operation, pollution prevention). Schedules of compliance may in no case exceed ten years, and shall generally not exceed the term of any permit.

WA WQS language on Variances

WAC 173-201A-420

Variance.

(1) The criteria established in WAC 173-201A-200 through 173-201A-260 may be modified for individual facilities, or stretches of waters, through the use of a variance. Variances may be approved by the department when:

(a)The modification is consistent with the requirements of federal law (currently 40 CFR 131.10(g) and 131.10(h)).

(b) The water body is assigned variances for specific criteria and all other applicable criteria must be met.

(c) Reasonable progress is being made toward meeting the original criteria.

(2) The decision to approve a variance is subject to a public and intergovernmental involvement process. (3) The department may issue a variance for up to five years, and may renew the variance after providing for another opportunity for public and intergovernmental involvement and review.

(4) Variances are not in effect until they have been incorporated into this chapter and approved by the USEPA.

[Statutory Authority: Chapters 90.48 and 90.54 RCW. 03-14-129 (Order 02-14), § 173-201A-420, filed 7/1/03, effective 8/1/03.]

USEPA: Water Quality Handbook - Chapter 5: General Policies (40 CFR 131.12)
5.3 Variances From Water Quality Standards

http://water.epa.gov/scitech/swguidance/standards/handbook/chapter05.cfm#section3

Variance procedures involve the same substantive and procedural requirements as removing a designated use (see section 2.7, this Handbook), but unlike use removal, variances are both discharger and pollutant specific, are time-limited, and do not forego the currently designated use.

A variance should be used instead of removal of a use where the State believes the standard can ultimately be attained. By maintaining the standard rather than changing it, the State will assure that further progress is made in improving water quality and attaining the standard. With a variance, NPDES permits may be written such that reasonable progress is made toward attaining the standards without violating section 402(a)(l) of the Act, which requires that NPDES permits must meet the applicable water quality standards.

State variance procedures, as part of State water quality standards, must be consistent with the substantive requirements of 40 CFR 131. EPA has approved State-adopted variances in the past and will continue to do so if:

- each individual variance is included as part of the water quality standard;
- the State demonstrates that meeting the standard is unattainable based on one or more of the grounds outlined in 40 CFR 13 1.10(g) for removing a designated use;
- the justification submitted by the State includes documentation that treatment more advanced than that required by sections 303(c)(2)(A) and (B) has been carefully considered, and that alternative effluent control strategies have been evaluated;
- the more stringent State criterion is maintained and is binding upon all other dischargers on the stream or stream segment;
- the discharger who is given a variance for one particular constituent is required to meet the applicable criteria for other constituents;
- the variance is granted for a specific period of time and must be rejustified upon expiration but at least every 3 years (Note: the 3-year limit is derived from the triennial review requirements of section 303(c) of the Act.);
- the discharger either must meet the standard upon the expiation of this time period or must make a new demonstration of "unattainability";
- reasonable progress is being made toward meeting the standards; and
- the variance was subjected to public notice, opportunity for comment, and public hearing. (See section 303(c)(l) and 40 CFR 131.20.) The public notice should contain a clear description of the impact of the variance upon achieving water quality standards in the affected stream segment.

40 CFR Section 131.10(g)

To grant a variance the state must demonstrate that meeting the standard is unattainable based on one or more of the grounds outlined in 40 CFR 13 1.10(g) for removing a designated use:

"States may remove a designated use which is not an existing use, or establish subcategories of a use requiring less stringent criteria if the state can demonstrate that attaining the designated use is not feasible (not an attainable use) because one or more of the following six conditions exist:

1.Naturally occurring pollution concentrations prevent the attainment of the use; or

2.Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or

3.Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or

4.Dams, diversions, or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use; or

5.Physical conditions related to the natural features of the water body, such as lack of proper substrate, cover, flow; depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses; or

6.Controls more stringent than those required by § 301 (b) and 306 of the Act would result in substantial and widespread economic and social hardship."