



# RULE-MAKING ORDER PERMANENT RULE ONLY

## CR-103P (December 2017) (Implements RCW 34.05.360)

CODE REVISER USE ONLY

OFFICE OF THE CODE REVISER  
STATE OF WASHINGTON  
FILED

DATE: March 22, 2022

TIME: 11:57 AM

WSR 22-07-095

**Agency:** Department of Ecology AO # 19-05

**Effective date of rule:**

**Permanent Rules**

- 31 days after filing.
- Other (specify) \_\_\_\_\_ (If less than 31 days after filing, a specific finding under RCW 34.05.380(3) is required and should be stated below)

**Any other findings required by other provisions of law as precondition to adoption or effectiveness of rule?**

- Yes  No If Yes, explain:

**Purpose:**

The Washington State Department of Ecology revised chapter 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington. We made the following revisions in this rulemaking:

- Added definitions to WAC 173-201A-020
- Amended WAC 173-201A-200(1)(d), Aquatic life dissolved oxygen criteria for fresh water for aquatic life use classes that protect salmon spawning
- Added a subsection WAC 173-201A-200(1)(h) Aquatic life fine sediment criteria
- Minor, non-substantive edits to rule language in WAC 173-201A-200 to correct typographical and formatting errors as recommended by the Washington Office of the Code Reviser

We revised aquatic life criteria to provide additional water quality and habitat protection for early life stages of salmonids—including salmon, steelhead, and trout—and their spawning gravels. These changes include:

- Revising the existing dissolved oxygen criteria to better protect early life stages of salmonids in gravel beds.
- Adding a dissolved oxygen requirement in freshwater gravel beds to provide a more direct measure of dissolved oxygen levels where early life stages live.
- Adding a percent saturation criteria to account for environmental factors that cause low dissolved oxygen levels such as high water temperature and elevation.
- Adding a narrative fine sediment criterion to provide additional protection for incubating salmonid eggs and larvae.

**Citation of rules affected by this order:**

New:  
 Repealed:  
 Amended: Chapter 173-201A WAC  
 Suspended:

**Statutory authority for adoption:** RCW 90.48.035 provides clear and direct authority to Ecology to revise the Surface Water Quality Standards (SWQS).

**Other authority:** : 40 CFR 131.20 requires states and tribes (with primacy for clean water actions) to periodically review and update the Water Quality Standards.

**PERMANENT RULE (Including Expedited Rule Making)**

Adopted under notice filed as WSR 21-21-080 on October 18, 2021 (date).

Describe any changes other than editing from proposed to adopted version: There are some differences between the text of the proposed rule filed on October 18, 2021 and the text of the adopted rule filed on March 22, 2022. Ecology made these changes for all or some of the following reasons:

- In response to comments we received.
- To ensure clarity and consistency.
- To meet the intent of the authorizing statute.

Below, we have described the changes between the proposed and adopted rule language, and Ecology's reasons for making them. For full details on the changes, including a comparison of proposed rule language and final rule language, see the [Concise Explanatory Statement](#).

**Change to WAC 173-201A-020:** Added language to the proposed definition for “intragravel dissolved oxygen” to clarify that the definition pertains to dissolved oxygen and not atmospheric oxygen.

**Change to WAC 173-201A-020:** Deleted language from the proposed definition of “spatial median” in order to generalize the definition, making it more applicable to all water quality standards in the future.

**Changes to WAC 173-201A-200(1)(d):** Language was edited to clarify that compliance may be demonstrated through either the water column or intragravel dissolved oxygen criteria.

**Changes to the format of WAC 173-201A-Table 200(1)(d):** Changes were made to the format of the proposed table, which included an additional column for intragravel D.O. criteria that would apply to those use categories that are associated with salmonid spawning. We received feedback that the proposed table was confusing and difficult to follow. To simplify the table, formatting changes were made to remove the final column containing the intragravel D.O. criteria, placing the information in the note to the table. Changes to the table also included identifying where the intragravel criteria apply by placing an asterisk beside each of the applicable aquatic life use categories associated with salmonid spawning habitat protection.

**Changes to the note in WAC 173-201A-Table 200(1)(d):** In order to increase readability, the intragravel D.O. 1-day minimum criteria in the column of proposed Table 200(1)(d) was moved down to the note below the table. In addition to moving intragravel D.O. criteria into the note, we added an associated minimum water column concentration of 9 mg/L (as a 1-day minimum) that must be met when intragravel D.O. is measured for compliance purposes. This change was based on comments received, in order to ensure full protection for water column dwelling salmonids at other life stages. The note was further edited by moving language that was proposed to be added to WAC 173-200(1)(d)(iv)(C) to the last sentence in the note, to provide more clarity on sampling needed for intragravel DO measurements and to make the information easier to find.

**Changes to WAC 173-201A-Table 200(1)(d):** Changes were made to the water column percent saturation component that apply to the different use categories found in Table 200(1)(d). These changes were made based on comments received and to correct what uses the percent saturation component of the water column criteria apply. Changes to percent saturation:

1. The percent saturation component for the Core Summer Salmonid Habitat use was changed from 90% to 95%. We received comments questioning whether the 90% saturation component for the Core Summer Salmonid Habitat use category in the proposed Table 200(1)(d) was protective of early life stages during the summer months. After review of the scientific literature and discussion with staff scientists, we agreed that the Core Summer Salmonid Habitat use should be changed to 95% because early life stages are present during the summer months for water bodies assigned this use. The 90% saturation coupled with the maximum temperature criteria for the Core Summer Salmonid Habitat use (16 or 13 degrees Celsius) would not provide full protection for spawning or early life stages. The 95% saturation criterion provides equivalent protection compared with the protective concentration-based DO criterion of 10 mg/L.
2. Changes were made from the proposed rule language to remove the percent saturation component from the Salmonid Rearing and Migration Only and Indigenous Warm Water Species use categories. The proposed rule inadvertently included a percent saturation for these uses. However, the focus of this rulemaking is on protection of early life stages of salmonids. These two uses do not include the protection of early life stages of salmonid as it relates to spawning and emergence; thus, the percent saturation component was removed in the final language.

**Changes to WAC 173-201A-200(1)(d)(iv):** Language proposed to be added to this subsection was moved to the last sentence in the note of Table 200(1)(d) to provide better clarity on sampling needed for intragravel DO measurements and to make the information easier to find.

**Changes to WAC 173-201A-200(1)(h):** Language for the proposed narrative fine sediment criteria was changed as a result of comments received and to provide clarification on the intent of the narrative criteria. The narrative criteria was divided into two subsections for easier reading. We received comments questioning whether there is available science to determine relationships between fine sediment and adverse effects on aquatic life. We added “excess” to the text to clarify that current methods to determine impairments focus on statistically or biologically significant changes in fine sediment-based metrics. This change was needed to clarify that small undetectable changes in fine sediment may not be identified in a fine sediment assessment due to natural fluctuations in environmental conditions of a water body. We deleted language associated with “anthropogenic sources at levels that cause adverse effects on aquatic life” because relationships between fine sediment-based parameters and adverse effects on aquatic life have not been established by the available science. We have revised the text to link excess fine sediment to impaired designated uses. We revised the text to better align with the intent of the rulemaking. Language in the proposed rule describing the use of reference sites to demonstrate compliance with the narrative fine sediment criteria was edited to provide clarity on the intent of how reference site values should be used. We revised the language to be more inclusive of the multiple methods that may be used to assess a fine sediment impairment and to provide clarity on what similarities should be considered for reference locations.

If a preliminary cost-benefit analysis was prepared under RCW 34.05.328, a final cost-benefit analysis is available by contacting:

Name: Susan Braley

Address: Department of Ecology, Water Quality Program, PO Box 47600, Olympia, WA 98504

Phone: 360-407-6600

Fax: N/A

TTY: People with speech disability may call TTY at 877-833-6341. People with impaired hearing may call Washington Relay Service at 711)

Email: [swqs@ecy.wa.gov](mailto:swqs@ecy.wa.gov)

Web site: <https://apps.ecology.wa.gov/publications/SummaryPages/2210006.html>

Other:

**Note: If any category is left blank, it will be calculated as zero.  
No descriptive text.**

**Count by whole WAC sections only, from the WAC number through the history note.  
A section may be counted in more than one category.**

**The number of sections adopted in order to comply with:**

Federal statute:	New	___	Amended	<u>2</u>	Repealed	___
Federal rules or standards:	New	___	Amended	<u>2</u>	Repealed	___
Recently enacted state statutes:	New	___	Amended	___	Repealed	___

**The number of sections adopted at the request of a nongovernmental entity:**

New	___	Amended	<u>1</u>	Repealed	___
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**The number of sections adopted on the agency's own initiative:**

New	___	Amended	<u>2</u>	Repealed	___
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**The number of sections adopted in order to clarify, streamline, or reform agency procedures:**

New	___	Amended	<u>2</u>	Repealed	___
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**The number of sections adopted using:**

Negotiated rule making:	New	___	Amended	___	Repealed	___
Pilot rule making:	New	___	Amended	___	Repealed	___
Other alternative rule making:	New	___	Amended	___	Repealed	___

**Date Adopted:** 3/22/2022

**Name:** Laura Watson

**Title:** Director

**Signature:**

