UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
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Seattle, WA 98101-3188

WATER
DIVISION

MAR 0 5 2020

Mr. David Giglio
Acting Manager, Water Quality Program
Washington State Department of Ecology
PO Box 47600
Olympia, Washington 98504-7600

Re: The EPA's Action on Revisions to the Washington State Department of Ecology's Surface Water Quality Standards for the Site-Specific Total Dissolved Gas Criteria in the Columbia and Snake Rivers, and Other Water Quality Standards Revisions

Dear Mr. Giglio:

The U.S. Environmental Protection Agency has completed the Clean Water Act (CWA) review of the new and revised water quality standards at Chapter 173-201A of the Washington Administrative Code (WAC), sent to the EPA by the Washington Department of Ecology on December 31, 2019. Under the CWA Section 303(c), 33 U.S.C. § 1313(c), states must submit new and revised water quality standards to the EPA for review and action, and the EPA must ensure that those water quality standards are consistent with the CWA and the EPA's implementing regulations. The EPA's action is outlined below and further described in the enclosed Technical Support Document.

The EPA's action applies only to waters in the State of Washington and does not apply to waters that are within Indian Country, as defined in 18 U.S.C. § 1151. In addition, nothing in this action shall constitute an approval or disapproval of a water quality standard that applies to waters within Indian Country. The EPA, or authorized Indian Tribes, as appropriate, will retain responsibilities for water quality standards for waters within Indian Country.

Summary of the EPA's Action

I. Pursuant to the EPA's authority under section 303(c)(3) of the CWA, 33 U.S.C. § 1313(c)(3), and 40 CFR Part 131, the EPA is approving certain revisions to the following sections of Chapter 173-201A WAC:
   - Portions of WAC 173-201A-200(1)(f)(ii): Aquatic life total dissolved gas criteria in fresh waters for the Snake and Columbia Rivers.
   - Portions of WAC 173-201A-210(l)(a): Marine water aquatic life use designation categories.
   - WAC 173-201A-240(5) Table 240 footnote dd.
   - Portions of WAC 173-201A-610 Table·610: Use designations – Marine waters.

II. The EPA is not taking action on the following new and revised provisions in the following sections of Chapter 173-201A WAC because they are not a new or revised water quality standard that the EPA has the authority to review and approve or disapprove pursuant to its CWA 303(c) authority, 33 U.S.C. § 1313(c)(3):

- WAC 173-201A-200(1)(c)(ii)(B): Aquatic life temperature criteria in fresh water for background condition when water is cooler than the criteria.
- WAC 173-201A-210(l)(c)(ii)(B): Aquatic life temperature criteria in marine water for background condition when water is cooler than the criteria.

The EPA appreciates Ecology's ongoing work to update Washington's water quality standards and supports your efforts to update the site-specific TDG criteria for the Columbia and Snake Rivers. We also appreciate the collaboration by your staff to address the complexities associated with criteria revisions. If you have any questions regarding this letter, please contact me at (206) 553-1855 or Lindsay Guzzo, the EPA staff lead, at (206) 553-0268 or Guzzo.Lindsay@epa.gov.

Sincerely,

Daniel D. Opalski
Director

Enclosure: Technical Support Document

cc: Ms. Melissa Gildersleeve, Water Quality Management Section Manager, Washington State Department of Ecology
Mr. Chad Brown, Water Quality Management Unit Supervisor, Washington State Department of Ecology

Technical Support Document

The EPA's Action on the Revisions to Chapter 173-201A of the Washington Administrative Code Regarding the Total Dissolved Gas Site Specific Criteria for Columbia and Snake Rivers and Other Provisions

March 5, 2020

I. The State of Washington Water Quality Standard Submittal

By letter dated December 31, 2019, the Washington State Department of Ecology (Ecology) submitted revisions to various sections of Washington Administrative Code (WAC) 173-201A to the U.S. Environmental Protection Agency (EPA) for review and action under section 303(c) of the Clean Water Act (CWA). The revisions were adopted on December 30, 2019, were certified by the Washington Attorney General on December 30, 2019 as duly adopted pursuant to state law, and became effective under Washington state law on January 29, 2020. Prior to adopting the revisions, Ecology provided opportunities for public comment and two public hearings on the proposed rule, including one in-person hearing on September 16, 2019 and one webinar hearing on September 19, 2019.

The water quality standard (WQS) submittal from Ecology included the following documents in support of its rulemaking and to meet the requirements at 40 CFR 131.6:

- Cover letter from Heather R. Bartlett, Washington State Department of Ecology, Water Quality Program Manager to Daniel Opalski, EPA Region 10 Water Division Director dated December 31, 2019.
- Attachment A: Memorandum from the Attorney General's office certifying the standards were duly adopted pursuant to state law.
- Attachment B: Water Quality Standards for Surface Waters of the State of Washington, Chapter 173-201A WAC, as revised on December 30, 2019.
- Attachment C: Concise Explanatory Statement. Chapter 173-201A WAC Water Quality Standards for Surface Waters of the State of Washington. Summary of Rulemaking and response to comments. December 2019. Ecology Publication no. 19-10-047.
- Attachment D: Rule Implementation Plan. Water Quality Standards for Surface Waters of the State of Washington. Amendments to Chapter 173-201A WAC. January 2019. Ecology Publication no. 19-10-048.
- Attachment E: Final Regulatory Analyses – Chapter 173-201A WAC. Water Quality Standards for Surface Waters of the State of Washington. January 2019. Publication no. 19-10-049.
- Attachment F: Final Environmental Impact Statement. Washington State's Changes to Water Quality Standards for Surface Waters of the State of Washington – WAC 173-201A. January 2019. Ecology Publication no. 19-10-046.
- Attachment G: Water Quality Standards for Surface Waters of the State of Washington, Chapter 173-201A WAC, as revised on January 23, 2019, and approved by EPA.
- Attachment H: Comments received on the rule language proposed on July 31, 2019.
- Attachment I: Track-changes version of the Water Quality Standards for Surface Waters of the State of Washington, Chapter 173-201A WAC, as revised on December 30, 2019.

In this rulemaking, Ecology adopted amendments to the Total Dissolved Gas (TDG) standards in the Snake and Columbia Rivers. Additionally, Ecology adopted other WQS revisions, including clarifying the descriptions of marine water aquatic life designations, removing incremental warming allowances for nonpoint sources, and clarifying that any future use of water effects ratios will require a separate rulemaking and submittal to the EPA. The revisions submitted to the EPA for review and CWA action include:

- WAC 173-201A-200(1)(c)(ii)(B): Aquatic life temperature criteria in fresh water for background condition when water is cooler than the criteria.
- WAC 173-201A-200(1)(f)(ii): Aquatic life total dissolved gas criteria in fresh waters for the Snake and Columbia Rivers.
- WAC 173-201A-210(l)(a): Marine water aquatic life use designation categories.
- WAC 173-201A-210(l)(c)(ii)(B): Aquatic life temperature criteria in marine water for background condition when water is cooler than the criteria.
- WAC 173-201A-240(5) Table 240 footnote dd.
- WAC 173-201A-610 Table·610: Use designations – Marine waters.

The EPA's action applies only to waters within the jurisdiction of the State of Washington and does not apply to waters that are within Indian Country, as defined in 18 U.S.C. § 1151. Nothing in this decision document shall constitute an approval or disapproval of a WQS that applies to waters within Indian Country. The EPA, or authorized Indian Tribes, as appropriate, retain the authority to establish WQS for waters within Indian Country.

II. Clean Water Act Requirements for Water Quality Standards

The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters with an interim goal, where attainable, to achieve water quality that provides for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water. Under section 303(c) of the CWA and federal implementing regulations at 40 CFR 131.4, states (and authorized tribes) have the primary responsibility for reviewing, establishing, and revising WQS, which consist primarily of the designated uses of a waterbody or waterbody segment, the water quality criteria that protect those designated uses, and an antidegradation policy. Under CWA section 303(c)(2)(A), whenever a state revises or adopts a new WQS, such WQS shall protect the public health or welfare, enhance the quality of water, and serve the purposes of the Act, including the protection and propagation of fish and wildlife. State criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to support the most sensitive use designation (40 CFR 131.11(a)). States are required to review applicable WQS periodically, and as appropriate, modify these standards (40 CFR 131.20).

Each state must follow applicable legal procedures for revising or adopting such standards (40 CFR 131.5(a)(6)) and submit certification by the state's attorney general, or other appropriate legal authority within the state, that the WQS were duly adopted pursuant to state law (40 CFR 131.6(e)). The EPA's authority and the minimum requirements for state submittals are described at 40 CFR 131.5 and 131.6.

States are required by 40 CFR 131.11(a) to adopt water quality criteria that protect their designated uses. In establishing such criteria, states should establish numeric values based on one of the following:

(1) CWA section 304(a) guidance;
(2) CWA section 304(a) guidance modified to reflect site-specific conditions; or,
(3) Other scientifically defensible methods (40 CFR 131.11 (b)(1)).

In addition, states should establish narrative criteria where numeric criteria cannot be determined or to supplement numeric criteria (40 CFR 131.11 (b)(2)).

Section 303(c) of the CWA also requires states to submit new or revised WQS to the EPA for review and action. The EPA is required to review these changes to ensure revisions to WQS are consistent with the CWA and EPA's implementing regulations. The EPA considers four questions (described below) when evaluating whether a particular provision is a new or revised WQS. If all four questions are answered "yes," then the provision would likely constitute a new or revised WQS that the EPA has the authority and duty to approve or disapprove under CWA section 303(c)(3).[1]

1. Is it a legally binding provision adopted or established pursuant to state or tribal law?
2. Does the provision address designated uses, water quality criteria (narrative or numeric) to protect designated uses, and/or antidegradation requirements for waters of the United States?
3. Does the provision express or establish the desired condition (e.g., uses, criteria) or instream level of protection (e.g., antidegradation requirements) for waters of the United States immediately or mandate how it will be expressed or established for such waters in the future?
4. Does the provision establish a new WQS or revise an existing WQS?

Finally, the EPA considers non-substantive edits to existing WQS to constitute new or revised WQS that the EPA has the authority to approve or disapprove under CWA section 303(c)(3). Although these edits and changes do not substantively change the meaning or intent of the existing WQS, the EPA believes it is reasonable to treat such edits and changes in this manner to ensure public transparency as to which provisions are applicable for CWA purposes. The scope of the EPA's review and action on non-substantive edits or editorial changes extends only to the edits or changes themselves and does not constitute an action on the underlying previously approved WQS.

III. The EPA's Action on New and Revised Water Quality Standards

The EPA's action and rationale on the new and revised WQS submitted by Ecology are provided below.

A. WAC 173-201A-200(1)(c) – Aquatic life temperature criteria

Ecology revised the following section to remove nonpoint temperature increase allowances in fresh waters. The underlined text indicates the new and/or revised language, and strikeout text indicates Ecology's previous text, which has been replaced by the new or revised text.

(ii) When the background condition of the water is cooler than the criteria in Table 200 (1)(c), ~~the allowable rate of warming up to, but not exceeding, the numeric criteria from human actions is restricted as follows:~~
~~(A)~~ incremental temperature increases resulting from individual point source activities must not exceed the numeric criteria and must not, at any time, exceed 28/(T+7) as measured at the edge of a mixing zone boundary (where "T" represents the background temperature as measured at a point or points unaffected by the discharge and representative of the highest ambient water temperature in the vicinity of the discharge) ~~; and~~

[1] *What is a New or Revised Water Quality Standard under 303(c)(3)? Frequently Asked Questions*, EPA No. 820F12017 (Oct. 2012). Available at https://www.epa.gov/sites/production/files/2014-11/documents/cwa303faq.pdf

~~(B) Incremental temperature increases resulting from the combined effect of all nonpoint source activities in the water body must not, at any time, exceed 2.8°C (5.04°F))).~~

The EPA Action and Rationale: In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR part 131, the EPA approves the non-substantive editorial changes in the provisions at WAC 173-201A-200 (1)(c)(ii) and the former WAC 173-201A-200 (1)(c)(ii)(A) as providing useful clarifying language. The scope of the EPA's action in approving such non-substantive editorial changes extends only as far as the actual changes themselves. The EPA's action here does not constitute an action on the underlying previously approved WQS.[2]

The EPA has determined that the deletion of the provision at WAC 173-201A-200(1)(c)(ii)(B) is not a new or revised water quality standard that the EPA has the authority to review and approve or disapprove pursuant to its CWA section 303(c) authority, 33 U.S.C. § 1313(c)(3). On February 11, 2008, the EPA issued a final determination to take no action to approve or disapprove Washington's submission of WAC 173-201A-200(1)(c)(ii)(B) on the basis that the provision addressing nonpoint source activities was not a water quality standard subject to CWA section 303(c) review. Due to EPA's final determination, the provision was never approved or made effective as a water quality standard for CWA purposes. Accordingly, Washington's deletion of the provision is similarly not a new or revised water quality standard subject to CWA section 303(c) review (i.e., it cannot be a new or revised WQS if it is not a WQS at all).

B. WAC 173-201A-200 (1)(f)(ii) – Aquatic life total dissolved gas criteria

The State of Washington recognized that there is a lack of information and uncertainty on the potential impacts to resident aquatic species, adult salmonids and juvenile salmonids of spilling to the 125% (12 hours) standard for spring. In order to address this uncertainty, Ecology revised the site specific TDG criteria to provide the dam operators the flexibility to spill at levels up to 125% under certain conditions, such as when operating in accordance with the spill levels and durations set forth in the NOAA Biological Opinion and Magnuson-Stevens Fisheries Conservation and Management Act Essential Fish Habitat Consultation for the Continued Operation and Maintenance of the Columbia River System (March 29, 2019).[3]

The revised provisions allow for a seasonal increase in the concentration of TDG subject to monitoring and biological threshold requirements designed to protect designated aquatic life uses. The underlined text indicates the new and/or revised language, and strikeout text indicates Ecology's previous text, which has been replaced by the new or revised text.

WAC 173-201A-200(1)(f)(ii) and WAC 173-201A-200(1)(f)(ii)(A)

(ii) The TDG criteria may be adjusted to aid fish passage over hydroelectric dams ~~when consistent with a department approved gas abatement plan. This plan must be accompanied by fisheries management and physical and biological monitoring plans~~ that spill for anadromous juvenile fish as of the 2020 spill season. The elevated TDG levels are intended to allow increased fish passage without causing more harm to fish populations than caused by turbine fish passage. The following special fish passage

[2] *Id.*
[3] https://archive.fisheries.noaa.gov/wcr/publications/hydropower/fcrps/master_2019_crs_biological_opinion__1_.pdf

exemptions for the Snake and Columbia Rivers apply when spilling water at dams is necessary to aid fish passage:
• ~~•~~ (A) TDG must not exceed:
• An average of one hundred fifteen percent as measured in the forebays of the next downstream dams and must not exceed an average of one hundred twenty percent as measured in the tailraces of each dam (these averages are ~~measured~~ calculated as an average of the twelve highest ~~consecutive~~ hourly readings in ~~any one~~ a calendar day, relative to atmospheric pressure); and
• A maximum TDG ~~one hour average~~ saturation level of one hundred twenty-five percent ~~must not be exceeded~~ calculated as an average of the two highest hourly TDG measures in a calendar day during spillage for fish passage.

The EPA Action and Rationale: In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR part 131, the EPA approves the revisions at WAC 173-201A-200(1)(f)(ii) and WAC 173-201A-200(1)(f)(ii)(A).

Modifications to WAC 173-201A-200(1)(f)(ii) include the removal of the requirement for an approved gas abatement plan, fisheries management plan and physical and biological monitoring plans. The revisions limit applicability of this standard to the hydroelectric dams that have historically spilled and plan to spill as of the 2020 spill season to increase anadromous juvenile fish passage.[4] Since states have the discretion to limit the applicability of the provision to specific dams, and since all the dams covered by this standard have fine-tuned their gas abatement and corresponding fisheries management and monitoring plans over several spill seasons, the need for these plans to qualify for the TDG fish passage exemption has been addressed.

The modifications at WAC 173-201A-200(1)(f)(ii)(A) slightly change the duration and frequency of the TDG magnitudes. These modifications align with the standard established by the state of Oregon for the Snake and Columbia Rivers to reduce confusion when reporting compliance to each state. Additionally, these modifications better reflect actual TDG levels associated with protective conditions that balance TDG levels with juvenile fish passage and therefore support the applicable designated uses. The underlying magnitudes of one hundred fifteen percent as measured in the forebays of the next downstream dams, one hundred twenty percent as measured in the tailraces of each dam and a maximum of one hundred twenty-five percent remain unchanged.

WAC 173-201A-200(1)(f)(ii)(B)

(B) To further aid fish passage during the spring spill season (generally from April through June), spill may be increased up to the following levels as measured at the tailrace fixed site monitoring location:

• A maximum TDG saturation level of one hundred twenty-five percent calculated as an average of the twelve highest hourly TDG measures in a calendar day; and
• A maximum TDG saturation level of one hundred twenty-six percent calculated as an average of any two consecutive hourly TDG measures. These TDG criteria may be applied in place of (f)(ii)(A) of this subsection during spring spill operations when applied in accordance with the following conditions:

[4] The spring spill season typically begins on April 3 in the lower Snake River and April 10 in the lower Columbia River, and ends on June 15 in the Columbia River and June 20 in the Snake River. Department of Ecology Final Environmental Impact Statement, Publication 19-10-046, December 2019.

(I) In addition to complying with the requirements of this chapter, the tailrace maximum TDG criteria at hydropower dams shall be applied in accordance with Endangered Species Act consultation documents associated with spill operations on the Snake and Columbia rivers, including operations for fish passage. The Endangered Species Act consultation documents are those by which dams may legally operate during the time that the adjusted criteria in (f)(ii)(B) of this subsection are in use.

(II) Application of the tailrace maximum TDG criteria must be accompanied by a department approved biological monitoring plan designed to measure impacts of fish exposed to increased TDG conditions throughout the spring spill season. Beginning in the year 2021, plans must include monitoring for nonsalmonid fish species and must continue for a minimum of five years, and thereafter as determined by the department.

(III) TDG must be reduced to allowances specified in (f)(ii)(A) of this subsection if the calculated incidence of gas bubble trauma in salmonids (with a minimum sample size of fifty fish required weekly) or nonsalmonids (with a minimum sample size of fifty fish required weekly) exceeds:
• Gas bubble trauma in nonpaired fins of fifteen percent; or
• Gas bubble trauma in nonpaired fins of five percent and gas bubbles occlude more than twenty-five percent of the surface area of the fin.

If gas bubble trauma exceeds these biological thresholds, additional monitoring must demonstrate the incidence of gas bubble trauma below biological thresholds before TDG can be adjusted to allowances specified in this subsection. Gas bubble trauma monitoring data shall be excluded from comparison to biological thresholds when higher than normal river flow contributes to excess spill above the ability to meet (f)(ii)(B) of this subsection. This monitoring data exclusion shall apply for one full calendar day after reduced river flow allows attainment of (f)(ii)(B) of this subsection.

The EPA Action and Rationale: In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR part 131, the EPA approves the site specific TDG standard for the Snake and Columbia Rivers at WAC 173-201A-200 200(1)(f)(ii)(B).

These new provisions aim to protect the designated use of migration by improving fish passage for juvenile salmon and steelhead migrating downstream in the Snake and Columbia Rivers. The EPA understands this standard to be comprised of revised criteria and policies affecting their application and implementation.

The EPA understands the criteria to be comprised of the elevated TDG saturation levels at WAC 173-201A-200(1)(f)(ii)(B) as modified by the maximum allowances for gas bubble trauma at WAC 173-201A-200(1)(f)(ii)(B)(III) ("(B)(III)") and accordingly is reviewing those provisions pursuant to the CWA regulatory standards set forth at 40 CFR 131.11. Juvenile salmonids at times can have higher survival rates when passing through dams via spillways rather than through the turbines; however, increased spill also results in elevated levels of TDG that may negatively affect aquatic life. The higher TDG saturation level allowed by this standard will allow for greater water flow through spillways, which is intended to result in improved salmon migration, and the maximum allowance of gas bubble trauma at (B)(III) provides biological thresholds that must be met to protect the aquatic life use.

Section (B)(III) specifies that TDG must be reduced to the default criteria at WAC 173-201A-200(1)(f)(ii)(A) if the incidence of gas bubble trauma in salmonids or non-salmonids exceeds certain

biological thresholds. As specified in the State's Concise Explanatory Statement,[5] Washington evaluated the literature to select biological thresholds intended to protect endangered salmonids from gas bubble trauma. These thresholds incorporate a margin of safety based on studies finding significant mortality does not occur in test fish until approximately 60% of a population is showing signs of gas bubble trauma.[6] Based on Washington's analysis of the data from the Fish Passage Center from 1995-2018, the first of the two biological thresholds under (B)(III) - gas bubble trauma in nonpaired fins of fifteen percent - was exceeded in only 37 instances of 2,870 samples and 28 of those instances occurred when TDG was greater than 125%.[7] While this monitoring occurred under different spill operations producing lower sustained TDG levels than would be allowable under the revised criteria, the EPA agrees with Washington's conclusion that TDG levels up to 125%, when paired with the gas bubble trauma thresholds in (B)(III), protect juvenile salmonids from risks associated with elevated TDG exposure. Studies suggest that invertebrates are tolerant of a range of TDG levels.[8] While data are less robust for non-salmonids, the additional biological monitoring requirements in the revised criteria will help address data gaps and allow for adaptive management of the criteria as appropriate.

Finally, the EPA's analysis of criteria protectiveness pursuant to 40 CFR 131.11 in this case involves consideration that higher TDG levels can, under appropriate conditions, help protect salmonid migration, a critical element of the applicable designated uses. The EPA concludes that the elevated TDG saturation levels, coupled with the biological thresholds in (B)(III), collectively comprise criteria that are protective of the designated use in accordance with 40 CFR 131.11 by balancing protection of salmonid migration with protection of the overall aquatic community.

The State has also chosen to include in its submission WAC 173-201A-200(1)(f)(ii)(B)(I) and WAC 173-201A-200(1)(f)(ii)(B)(II) ("(B)(I)" and "(B)(II)"), which constitute policies affecting the application and implementation of the revised TDG criterion and which the EPA has accordingly reviewed pursuant to 40 C.F.R. 131.13 (providing that "States may, at their discretion, include in their State standards, policies generally affecting their application and implementation, such as mixing zones, low flows and variances. Such policies are subject to EPA review and approval").

Based on the language of (B)(I) and the record before the Agency, the EPA is approving this provision as a policy affecting application of the criteria in that it establishes a condition precedent that must be met for the TDG spring spill fish passage criteria to apply. Specifically, this provision requires that dams operate "in accordance with Endangered Species Act consultation documents" which are "those by which dams may legally operate during the time that the adjusted criteria in (f)(ii)(B) of this subsection are in use."

The intent of (B)(I) is stated in Ecology's associated Rule Implementation Plan.[9] The "Compliance with Endangered Species Act" section on page 6 of the Implementation Plan states:

The intent of this language is to make clear that any dams that employ the 125% (12hr.)/126% (2hr.) tailrace-only criteria must do so in a manner that meets their ESA requirements regarding spill volumes,

[5] Available at https://fortress.wa.gov/ecy/publications/summarypages/1910047.html
[6] Id. Pages 23 and 49.
[7] Id. Page 25.
[8] Id. Page 61.
[9] Available at https://fortress.wa.gov/ecy/publications/summarypages/1910048.html

including juvenile and adult fish passage. Dams may not employ these adjusted criteria unless the ESA requirements have evaluated and currently allow the spill volumes and any resulting impacts to ESA species. Any application of the 125% (12hr.)/126% (2hr.) tailrace-only criteria to increase spill that does not comply with the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration Fisheries ESA consultation documents under which the dam is operating, is not allowed by this rule.

Therefore, the effect of this application policy is that the revised TDG standard at WAC 173-201A-200(1)(f)(ii)(B) prohibits hydropower spill that will result in TDG saturation levels above the pre-existing criterion up to those allowed for by the revised TDG standard except when dams are operated in accordance with ESA consultation documents. That is because compliance with the ESA consultation documents is a condition precedent for the revised criteria and so the criteria are not applicable for purposes of the CWA (i.e. have no effect for CWA purposes) without ESA consultation documents addressing spill operations that result in TDG saturation levels above the pre-existing criterion. The EPA notes that the consultation documents under which dams may "legally operate," which for purposes of this provision have been or will be issued by the Fish and Wildlife Service and/or National Marine Fisheries Service ("Services"), are established by those agencies pursuant to their independent legal authority under the Endangered Species Act ("ESA").

Thus, while the EPA is approving (B)(I) as establishing a condition precedent to the application of the elevated TDG saturation criteria, the specific conditions of dam operations contained in the consultation documents referenced in this provision are derived from and based on the ESA and do not of themselves constitute water quality standards subject to this CWA approval action. Nonetheless, by operation of (B)(I), the State is ensuring that the effects of greater or lesser spill to ESA-listed species will have been considered and addressed by the Services, and federal dam operators will need to ensure their operations are in accordance with any ESA consultation documents, including spill volumes and durations, in order for the revised criteria to apply. If a dam operator has not undergone ESA consultation to evaluate, consider, and address the effect of spill at levels that would necessitate application of the revised TDG criteria, or is otherwise not operating in accordance with the associated ESA consultation documents, then the revised TDG criteria would not apply and the waters must instead meet the default TDG criteria at WAC 173-201A-200(1)(f)(ii)(A).

Ecology has explained that the purpose of the "ESA consultation language in the rule is to ensure that any spring spill regime that utilizes the 'up to 125% TDG' adjusted criteria, must have had such spill levels and durations evaluated for the impacts to ESA listed species of all life stages, including juvenile out-migrating salmonids, resident salmonids, and adult migrating salmonids."[10] In other words, while the revised TDG standard submission does not limit the duration of the application of the revised TDG criteria to the applicable waterbodies, (B)(I) does ensure that, in order for the revised TDG criteria to

[10] Email communication from Chad Brown, Washington Department of Ecology, to Lindsay Guzzo, EPA, January 27, 2020 (emphasis in original). Mr. Brown's email further notes: "It is Ecology's understanding that the Federal Services have not yet reviewed the ESA impacts of a 24 hours a day/7 days a week TDG level and spill regime, therefore until such time that ESA consultation on this spring spill duration has occurred, such a spill regime would not be allowed by Washington State rules."

apply, dam spillage must be in accordance with the durations determined by the Services and adaptively managed as appropriate through the section 7 consultation process.[11]

The EPA is further approving (B)(II) as a policy affecting implementation of the criterion pursuant to 40 C.F.R. § 131.13 because it specifies that the TDG criterion "must be accompanied by a department approved biological monitoring plan" and sets some parameters for such plans. This provision describes how the state will implement the criterion in a matter that will facilitate application of the gas bubble trauma rates at (B)(III), and the EPA is approving this policy as a reasonable exercise of the State's implementation discretion.

C. WAC 173-201A-210 (1)(a) – Categories for aquatic life uses

Ecology revised the following section to correct an error that occurred when the standards were restructured in 2003 and to clarify the appropriate intent. The underlined text indicates the new and/or revised language, and strikeout text indicates Ecology's previous text, which has been replaced by the new or revised text.

(i) **Extraordinary quality**. Water quality of this use class shall markedly and uniformly exceed the requirements for all uses including, but not limited to, salmonid ~~and~~ migration and rearing; other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.

(ii) **Excellent quality**. Water quality of this use class shall meet or exceed the requirements for all uses including, but not limited to, salmonid ~~and~~ migration and rearing; other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.

(iii) **Good quality**. Water quality of this use class shall meet or exceed the requirements for most uses including, but not limited to, salmonid migration and rearing; other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.

(iv) **Fair quality**. Water quality of this use class shall meet or exceed the requirements for selected and essential uses including, but not limited to, salmonid and other fish migration.

The EPA Action and Rationale: In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR part 131, the EPA approves the revision to the categories for aquatic life uses in marine waters. The unintended error of protecting marine waters for salmonid spawning, which does not actually occur in marine waters, was corrected. The revisions return the use descriptions to their original intent and provide useful clarifying information.

[11] It is the EPA's understanding that the State anticipates that for the 2020 spring spill season dam spillage will operate for no more than 16 hours daily, based on the current 2019 NOAA Biological Opinion. Pursuant to (B)(I) and as described in Ecology's Implementation Plan, unless and until such time that ESA consultation on a spill duration of other than 16 hours per day has been completed by the dam operators and is reflected in the applicable ESA consultation documents for dam operations, dam spillage is limited to a 16-hour duration in order for the revised criteria to apply.

D. WAC 173-201A-210 (1)(c)(ii) – Aquatic life temperature criteria

Ecology revised the following section to remove nonpoint temperature increase allowances in marine waters. The underlined text indicates the new and/or revised language, and strikeout text indicates Ecology's previous text, which has been replaced by the new or revised text.

(ii) When the natural condition of the water is cooler than the criteria in Table 210 (1)(c), ~~the allowable rate of warming up to, but not exceeding, the numeric criteria from human actions is restricted as follows:~~
~~(A)~~ incremental temperature increases resulting from individual point source activities must not exceed the numeric criteria and must not, at any time, exceed 12/(T-2) as measured at the edge of a mixing zone boundary (where "T" represents the background temperature as measured at a point or points unaffected by the discharge and representative of the highest ambient water temperature in the vicinity of the discharge~~); and~~
~~(B) Incremental temperature increases resulting from the combined effect of all nonpoint source activities in the water body must not, at any time, exceed 2.8°C (5.04°F).~~

The EPA Action and Rationale: In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR part 131, the EPA approves the editorial change in sections at WAC 173-201A-210 (1)(c)(ii) and former WAC 173-201A-210 (1)(c)(ii)(A) as providing useful clarifying language given the previous removal of WAC 173-201A-210 (1)(c)(ii)(B). The scope of the EPA's action in approving such provisions extends only as far as the actual changes themselves. The EPA's action does not constitute an action on the underlying previously approved WQS.[12]

The EPA has determined that the deletion of the provision at WAC 173-201A-210 (1)(c)(ii)(B) is not a new or revised water quality standard that the EPA has the authority to review and approve or disapprove pursuant to its CWA section 303(c) authority, 33 U.S.C. § 1313(c)(3). On February 11, 2008, the EPA issued a final determination to take no action to approve or disapprove Washington's submission of WAC 173-201A-210 (1)(c)(ii)(B) on the basis that the provision addressing nonpoint source activities was not a water quality standard subject to CWA section 303(c) review. Due to the EPA's final determination, the provision was never approved or made effective as a water quality standard for CWA purposes. Accordingly, Washington's deletion of the provision is similarly not a new or revised water quality standard subject to CWA section 303(c) review (i.e., it cannot be a new or revised WQS if it is not a WQS at all).

E. WAC 173-201A-240 (5) Table 240 Toxic Substances Criteria

Ecology added the following clarification language to Table 240 footnote dd:

The adjusted site specific criteria are not in effect until they have been incorporated into this chapter and approved by the EPA.

The EPA Action and Rationale: In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR part 131, the EPA approves this change as providing useful clarifying information. The EPA and Ecology agree that any efforts to revise metals aquatic life criteria by developing water effects ratios

[12] *Id.*

would need to go through a separate rulemaking and be submitted to the EPA for review under CWA section 303(c). This revision codifies the agreed-upon intent of this footnote and will not change how the footnote has historically been implemented.

F. WAC 173-201A-610 Table 610—Use designations for marine waters by water resource inventory area (WRIA)

Ecology revised the following table to conform with the new language found in WAC 173-201A – 210(1). The underlined text indicates the new and/or revised language, and strikeout text indicates Ecology's previous text, which has been replaced by the new or revised text.

Abbreviation	General Description
Aquatic Life Uses:	(see WAC 173-201A- 210(1))
Extraordinary Quality	Extraordinary quality. Water quality of this use class shall markedly and uniformly exceed the requirements for all uses including, but not limited to, salmonid ~~and~~ migration and rearing; other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.
Excellent Quality	Excellent quality. Water quality of this use class shall meet or exceed the requirements for all uses including, but not limited to, salmonid ~~and~~ migration and rearing; other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.
Good Quality	Good quality. Water quality of this use class shall meet or exceed the requirements for most uses including, but not limited to, salmonid migration and rearing; other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.
Fair Quality	Fair quality. Water quality of this use class shall meet or exceed the requirements for selected and essential uses including, but not limited to, salmonid and other fish migration.

The EPA Action and Rationale: In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR part 131, the EPA approves the clarifying language as non-substantive edits to Washington's existing WQS. This table repeats the -approved designated uses listed in WAC 173-201A-210(1). The EPA is approving these non-substantive revisions to ensure public transparency as to which provisions are applicable for CWA purposes. This action does not re-open the EPA's prior approval of the underlying standard at WAC 173-201A-210(1).