

Response to Comments

General Permit for Federal Aquaculture Facilities and Aquaculture Facilities Located in Indian Country within the Boundaries of the State of Washington (WAG130000)

November 9, 2023

Summary

On September 7, 2022, the U.S. Environmental Protection Agency Region 10 (EPA) issued a public notice for the proposed reissuance of a National Pollutant Discharge Elimination System (NPDES) general permit for Federal Aquaculture Facilities and Aquaculture Facilities Located in Indian Country within the Boundaries of the State of Washington (WAG130000). The extended public comment period closed December 22, 2022.

EPA received comments during this comment period from the following:

- Columbia River Intertribal Fish Commission (CRITFC)
- Inland Empire Paper Company (IEPC)
- Wild Fish Conservancy (WFC)
- Army Corps of Engineers (Corps)
- Northwest Indian Fisheries Commission (NWIFC)
- Tulalip Tribes (Tulalip)

On July 18, 2023, EPA issued a second limited public notice which ended on September 1, 2023. The second public notice was focused exclusively on the following changes made to the General Permit following the first public comment period:

1. Inclusion of Soluble Reactive Phosphorus (SRP) effluent limits for the White River Hatchery (existing) and the proposed Coal Creek Springs Fish Facility (planned).
2. Changes to temperature monitoring requirements for facilities discharging to temperature impaired rivers.
3. Frequency and timing of polychlorinated biphenyls (PCB) monitoring for facilities on the Spokane Reservation based on the Spokane Tribe of Indians Clean Water Act (CWA) § 401 certification.
4. Adjustment of the Temperature Compliance Schedule Length and Milestones for the Skookum Creek Hatchery.

EPA did not receive any comments during the second public comment period.

This document presents EPA's responses to comments received, and changes made to the General Permit in response to comments received. EPA has summarized similar comments from different entities in this document when developing its responses. The full comments received can be viewed at <https://www.epa.gov/npdes-permits/npdes-general-permit-federal-aquaculture-facilities-and-aquaculture-facilities>

On September 7, 2022, EPA requested CWA § 401 certifications from the Washington State Department of Ecology (Ecology) and from all tribes within Washington with Treatment as a State (TAS). EPA received the following:

- Ecology transmitted their CWA § 401 certification to EPA on December 5, 2022.
- Confederated Tribes of the Colville Reservation (Colville) transmitted their CWA § 401 certification to EPA on December 19, 2022.
- Jamestown S’Klallam Tribe (Jamestown S’Klallam) transmitted their CWA § 401 certification to EPA on November 4, 2022.
- Lummi Nation (Lummi) transmitted their CWA § 401 certification to EPA on September 21, 2022.
- Makah Tribe (Makah) transmitted their CWA § 401 certification to EPA on December 20, 2022.
- Spokane Tribe of Indians (Spokane) transmitted their CWA § 401 certification to EPA on November 2, 2022.
- Tulalip Tribes (Tulalip) transmitted their CWA § 401 certification to EPA on November 21, 2022.
- EPA did not receive CWA § 401 certifications from the following tribes: Confederated Tribes of the Chehalis Reservation, Kalispel Tribe of Indians, Port Gamble S’Klallam Tribe, Puyallup Tribe, Quinault Indian Nation, Swinomish Indian Tribal Community. Since EPA did not receive certifications from these Tribes, the certifications are deemed waived.

EPA has added all CWA § 401 certification conditions to the permit. The CWA § 401 certifications received for this general permit can be viewed as a 2022 Fact Sheet Appendix at <https://www.epa.gov/npdes-permits/npdes-general-permit-federal-aquaculture-facilities-and-aquaculture-facilities>.

This document also presents the conditions added to the permit resulting from CWA § 401 certifications. See CWA § 401(d), 33 USC § 1341(d).

Note that throughout this document, the term ‘where appropriate’ is used when a given CWA § 401 certification condition only applies within a specific jurisdiction (i.e. when a tribal CWA § 401 certification condition only applies within that tribe’s reservation).

Changes in response to public comment:

As a result of comments received, the following revisions were made to the permit:

- EPA has changed the paper Notice of Intent (NOI) eligibility questions in Appendix B of the Permit as follows (changes are in bold). These changes will be reflected in the electronic NOI available at <https://cdx.epa.gov/>.

| | |
|---|---|
| <p>Is your facility engaged in enhancement, production, research, or dam fish passage activities which involves containing, growing or holding aquatic animals in ponds, raceways or similar structures which discharge hatchery or aquaculture-related discharge water to fresh or marine waters within the State of Washington? Note that fish sampling programs at federal hydroelectric dams that result in discharges of water treated with Aquifer-S20E are considered research facilities for the purposes of this NOI (See Eligible Facilities in Part II.B.2 of the General Permit).</p> | <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> |
| <p>If yes, indicate which activities your facility is engaged in.</p> | <p><input type="checkbox"/> Enhancement <input type="checkbox"/> Production <input type="checkbox"/> Research</p> |

| | __Dam Fish Passage |
|---|---------------------------|
| Please complete the appropriate sections given your facility's operation and production process. <i>Fish sampling programs at Federal hydroelectric dams dam fish passage facilities skip to the “Aquaculture Unit Type” section beginning on page 12.</i> | |
| Aquaculture for Harvesting or Release (Stocking) Purposes <i>(This section does not apply to fish sampling programs at Federal hydroelectric dams dam fish passage facilities)</i> | |
| Aquaculture for Acclimation Purposes <i>(This section does not apply to fish sampling programs at Federal hydroelectric dams dam fish passage facilities)</i> | |

- EPA has added the following sentence at the end of the definition for “toxic pollutants”: “The list of applicable toxic pollutants or combination of pollutants shall consist of those toxic pollutants listed in 40 C.F.R 401.15”.
- EPA has changed the Definition of “Toxic Substances” in Permit Part XI as follows (see bold):

“Toxic substances - Substances that when discharged above natural background levels **to surface waters in waters of the state** have the potential either singularly or cumulatively to adversely affect characteristic water uses, cause acute or chronic toxicity to the most sensitive biota dependent upon those waters, or adversely affect public health, as described in WAC 173-201A-240 **for state waters, or in the equivalent section of EPA approved tribal water quality standards for discharges to tribal waters.**”

Changes in Response to CWA § 401 Certification Conditions

EPA has added all Ecology and tribal CWA § 401 certification conditions to the permit.

EPA has added language to relevant sections regarding submittal of information to Ecology or a given tribe, where appropriate.

General CWA § 401 Certification Permit Conditions

- The following language was in the Colville Tribes CWA § 401 certification:
 - *“Members of the Confederated Tribes of the Colville Reservation rely heavily on locally caught fish for subsistence and ceremonial uses and have higher consumption rates than the general public. The promulgation of new or amended Water Quality Standards or regulations having a direct bearing upon permit conditions or require permit revision, the CTCR may require reopening and modification of the current permit. Other issues that may impact Water Quality Standards for further consideration include:*
 - Reopening certification due to substantial changes in conditions or operations*
 - Releasing water stored pursuant to the US-Canada Treaty*
 - Implementation of the Columbia River System Operation Environmental Impact Statement preferred alternative*
 - Seasonal reservoir drawdowns*
 - Columbia River System Operations Biological Opinion(s)*
 - Increase water flows for recreation”*

EPA will continue to coordinate closely with the Colville Tribes as circumstances evolve and will consider modification of the permit given substantial changes in the areas identified above. EPA

will provide public notice if the permit is modified, unless the modification constitutes a ‘minor modification’ pursuant to 40 CFR 122.63.

- The following language was in the Colville Tribes CWA § 401 Certification:
 - *“Culture: Cultural sites, (archaeological and traditional places) are adversely impacted by various types of non-point “pollution”; caused by CJD, including but not limited to cultural plants, cultural ceremonies, cultural medicines, cultural foods, and, IN PARTICULAR anadromous aquatic species, sustainers of Native American life, traditions, and physical, mental, emotional, and spiritual well-being. Please see Attachment One: “National Point Discharge Elimination System Cultural Resource Assessment.”*

EPA acknowledges the cultural importance of rivers and fish to the Colville Tribes, and the role hatcheries have in supporting the cultural resources referenced above. This NPDES general permit will regulate the water quality discharges from these hatchery facilities, which helps to protect clean water and support the cultural resources of the Colville Tribes. The “National Point Discharge Elimination System Cultural Resource Assessment” attachment referenced above can be read in full in the Colville Tribes CWA § 401 certification which can be accessed as a 2022 Fact Sheet appendix at <https://www.epa.gov/npdes-permits/npdes-general-permit-federal-aquaculture-facilities-and-aquaculture-facilities>.

- EPA has added the following language to Permit Part VIII.F in accordance with Tulalip Tribe’s CWA § 401 certification:
 - [Tulalip Tribes] A copy of the General permit shall be kept on site and made readily available for reference by the facility manager or other responsible party and Tribal inspectors.
- EPA has added the following language to Permit Part VI.B.4.(a)(iv)(c) in accordance with Tulalip Tribe’s CWA § 401 certification:
 - [Tulalip Tribes] The permittee shall ensure that managers and other responsible parties have read and understand the conditions of the permit, the Tulalip Tribes certification (where appropriate), and other relevant documents, to avoid violations or noncompliance with this certification.
- EPA has added the following language to Permit Part VI.B.4.(a)(ii)(c) in accordance with Tulalip Tribe’s CWA § 401 certification:
 - [Tulalip Tribes] The permittee shall be responsible for best management practices that addresses keeping the project site clean.
- EPA has added the following language to Permit Part IX.A. in accordance with Ecology’s CWA § 401 certification:
 - [Discharges to state waters] The permittee is responsible for ensuring that permit conditions are met by any agents, assignees and contractors conducting work on behalf of the permittee.

Tribal Notification and Submittal – Related 401 Certification Permit Conditions

- EPA has added the following language to Permit Part III.A.2 from the Jamestown S’Klallam Tribes CWA § 401 certification:
 - [Jamestown S’Klallam Tribe] The permittee must provide a copy of the Notice of Intent to the Jamestown S’Klallam Tribe for review and approval, where appropriate, at the following address.

Natural Resources Department
1033 Old Blyn Highway
Sequim, Washington 98382

- EPA has added the Lummi Natural Resources Department Director as a required recipient, where appropriate, of 24-hour noncompliance notifications in Permit Part VIII.G.1.e. in accordance with Lummi Nation’s CWA § 401 certification.
- EPA has included Lummi Nation as a required recipient, where appropriate, of NOIs (Permit Part III.A), Discharge Monitoring Reports (DMRs) (Permit Part VIII.B), Quality Assurance Plan (QAP) certification (Permit Part VI.A.2), Best Management Practices (BMP) Plan certification (Permit Part VI.B.b), Annual Reports (Permit Part VII.F), spill reports (Permit Part VIII.G.1.e), non-compliance reports (Permit Part VIII.G.1.e), and Notices of Termination (NOT) (Permit Part III.F) in accordance with the Lummi Nation CWA § 401 certification.
- EPA has included the Makah Tribe as a required recipient, where appropriate, of NOI’s (Permit Part III.A), DMR reports (Permit Part VIII.B), spill reports (Permit Part VIII.G.1.e), and non-compliance reports (Permit Part VIII.G.1.e), that originate on the Makah reservation in accordance with the Makah Tribe CWA § 401 certification.
- EPA has included the Spokane Tribe as a required recipient, where appropriate, of NOI’s (Permit Part III.A), QA Plan (Permit Part VI.A.2), BMP Plan (Permit Part VI.B.b), Annual Report (Permit Part VII.F), spill and non-compliance reports (Permit Part VIII.G.1.e), DMRs (Permit Part VIII.B), Investigational New Animal Drug (INAD) use, extra label drug use, low priority drug or potassium permanganate use (Permit Part VII.B.2 and VII.B.3) in accordance with the Spokane Tribe CWA § 401 certification.
- EPA has included Tulalip Tribes as a required recipient, where appropriate, of NOIs (Permit Part III.A), QAP certification (Permit Part VI.A.2), BMP Plan certification (Permit Part VI.B.b), Annual Report (Permit Part VII.F), spill and non-compliance reports (Permit Part VIII.G.1.e), DMRs (Permit Part VIII.B), INAD use, extra label drug use, low priority drug or potassium permanganate use (Permit Part VII.B.2 and VII.B.3) in accordance with the Tulalip Tribes CWA § 401 certification.

Inspection and Entry – Related 401 Certification Permit Conditions

- EPA has added the following condition to Section X.G. of the permit in accordance with Tulalip Tribe’s and Spokane Tribe’s CWA § 401 certifications (see bold):
 - The Permittee must allow the Director of the Enforcement and Compliance Assurance Division, EPA Region 10, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), **or the Tulalip Tribes Water Resources Department, where appropriate, or the Spokane Tribal Water Control Board, where appropriate,** upon the presentation of credentials and other documents as may be required by law, to:

- Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

Water Quality Standards – Related 401 Certification Permit Conditions

- EPA has added the following condition to Section IV.A.8 of the permit in accordance with Lummi Nation’s CWA § 401 certification:
 - [The Permittee must not discharge to waters of the United States from the aquaculture facility:] [Lummi Nation] Any discharge that results in noncompliance with the Water Quality Standards for Surface Waters of the Lummi Indian Reservation (Lummi Administrative Regulations [LAR] 17 LAR 07.010 through 17 LAR 07.210).
- EPA has added the following condition to Section IV.A.9 of the permit in accordance with the Colville Tribes CWA § 401 certification:
 - [The Permittee must not discharge to waters of the United States from the aquaculture facility:] [Colville Tribes] Any discharge that results in noncompliance with the Water Quality Standards for waters of the Colville Reservation from both point and non-point source discharges.
- EPA has added the following condition to Section IV.A.10 of the permit in accordance with Tulalip Tribe’s CWA § 401 certification.:
 - [The Permittee must not discharge to waters of the United States from the aquaculture facility:] [Tulalip Tribes] Any discharge that results in noncompliance with applicable sections of the Tulalip Tribe’s Water Quality Standards (Ratified November 1996).
- EPA has added the following condition to Section IV.A.11 of the permit in accordance with Tulalip Tribe’s CWA § 401 certification.:
 - [The Permittee must not discharge to waters of the United States from the aquaculture facility:] [Tulalip Tribes] Any discharge that results in noncompliance with applicable sections of the Tulalip Tribe’s Environmental Infractions (Tulalip Tribal Code Title 8 Chapter 8.20).

PCB – Related 401 Certification Permit Conditions

- The Spokane Tribe of Indians CWA § 401 certification includes the following condition:
“The permittee shall monitor their effluent for PCB congeners and report its findings to the Spokane Tribe, WCB.”

Permit Part V.A.2. (Table 1) and V.B.2. (Table 8) were modified to require annual PCB monitoring for facilities within the Spokane Reservation using method 1668C. The monitoring method, timing and frequency were developed in coordination with the Spokane Tribe and were

open for comment during the second public comment period. The following two footnotes were also added to Tables 1 and 8 as follows:

- 14 – Facilities within the Spokane Reservation must monitor for PCBs annually during the calendar month of maximum feeding, using Method 1668C. Monitoring must be conducted during the first full calendar year of permit coverage, and annually thereafter. Reporting of PCB monitoring results to EPA and the Spokane Tribe of Indians is required once per year on or before January 20th (see Part V.C.3.)
- 15 – Annual PCB monitoring must take place during the calendar month of maximum feeding.

Compliance – Related CWA § 401 Certification Permit Conditions

- EPA has renamed Section V.L. ‘State **and Tribal Law**’ and added the following language to the section in accordance with the Colville Tribes CWA § 401 certification condition:
 - “[Colville Tribes] The permittee is expected to comply with other applicable statutes and codes administered by federal and CTCR agencies. Pursuant to Colville Tribal Law & Order Code Title 4 Natural Resources and Environment, the facility operator may also require a Waste Discharge permit from either BPA or the Department as applicable as provided in Chapter 4-8 Water Quality Standards and Chapter 4-10 Water Resources Use and Permitting adopted thereunder.”
- EPA has renamed Section X.J. State **and Tribal Laws** and added the following language in accordance with Tulalip Tribe’s CWA § 401 certification (see bold):
 - “[Tulalip Tribes] The permittee is not exempt from compliance with other statutes and codes administered by the Tulalip Tribes, county, state and federal agencies”.

Editorial Corrections to the Permit

EPA has corrected the following editorial errors in the permit.

- EPA has corrected typos, formatting, and punctuation errors and added abbreviations in the permit.

Response to Comments

Dam Fish Passage Activities

Comment 1. “Dam fish passage activities” should be referred to as such consistently throughout the document. In some sections the dam fish passage activities are referred to as “facilities” and in others they are described such as “fish passage facilities” that “contain grow, or hold aquatic animals in tanks, or similar structures, which discharge water treated with AQUI-S20E” this could lead to confusion as the permit and notice of intent (NOI) are implemented. Additionally, the permit conflicts with the NOI as the NOI states that ““fish sampling programs at federal hydroelectric dams that result in discharges of water treated with AQUI-S20E” [be] considered research facilities’; however, Part II.B.2 establishes a separate “Dam Fish Passage” activity that specifically includes sampling programs where discharges of AQUI-S20E are occurring. EPA appears to be confusing or conflating physical facilities with permitted activities that result in a discharge. The Corps owns and operates fish passage “facilities” where Corps personnel and third parties carry out permitted activities that result in point source discharges. The Corps requests EPA clearly treat fish passage facilities separate and apart from those activities (occurring at those facilities) that result in discharges. In short, the NPDES permit should appropriately distinguish owners from operators, and facilities from activities. (USACE p. 1)

Response. The general permit provides coverage for specific activities that result in a discharge to waters of the U.S. (enhancement and/or production; research; dam fish passage) as described in Permit Part II.B.2, which take place at federal facilities and facilities located in Indian Country as defined in Permit Part II.B.1. For the coverage of dam fish passage activities at federal dams, the fish passage activity is the point source that results in the discharge of AQUI-S20E which is authorized by the permit. As described in Permit Part III.A.5, “when an aquaculture facility is owned by one person or company, and is operated by another person or company, it is the operator’s responsibility to apply for and obtain permit coverage.” In the case of dam fish passage activities at a given dam, there may be multiple organizations conducting fish sampling during different periods of time. The Corps will need to work with those organizations to establish roles, responsibilities and liabilities surrounding permit coverage at a given facility.

This comment correctly pointed out a discrepancy between the permit and the NOI. EPA has changed the paper NOI eligibility questions in Appendix B of the permit as follows (see bold). These changes will also be reflected in the electronic NOI available at <https://cdx.epa.gov/>:

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| <p>Is your facility engaged in enhancement, production, research, or dam fish passage activities which involves containing, growing or holding aquatic animals in ponds, raceways or similar structures which discharge hatchery or aquaculture-related discharge water to fresh or marine waters within the State of Washington? Note that fish sampling programs at federal hydroelectric dams that result in discharges of water treated with AQUI-S20E are considered research facilities for the purposes of this NOI (See Eligible Facilities in Part II.B.2 of the General Permit).</p> | <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> |
| <p>If yes, indicate which activities your facility is engaged in.</p> | <p><input type="checkbox"/> Enhancement <input type="checkbox"/> Production <input type="checkbox"/> Research <input type="checkbox"/> Dam Fish Passage</p> |

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| <p>Please complete the appropriate sections given your facility's operation and production process. <i>Fish sampling programs at Federal hydroelectric dams dam fish passage facilities skip to the “Aquaculture Unit Type” section beginning on page 12.</i></p> | |
| <p>Aquaculture for Harvesting or Release (Stocking) Purposes <i>(This section does not apply to fish sampling programs at Federal hydroelectric dams dam fish passage facilities)</i></p> | |
| <p>Aquaculture for Acclimation Purposes <i>(This section does not apply to fish sampling programs at Federal hydroelectric dams dam fish passage facilities)</i></p> | |

Comment 2. Under permit requirements for fish sampling as part of dam fish passage activity at an aquaculture facility, the document seems to restrict discharges to only water treated with “Aqui-S20E” and exclude other fish anesthetics. The Corps requests that EPA consider extending the permit to apply to discharges of Aqui-S20E and other fish anesthetics. (USACE p. 2)

Response. Prior to and during the permit development process, EPA worked closely with the Corps to understand the necessity of permit coverage for Aqui-S20E discharges to water at Columbia and Snake River Dams, in instances where no other discharge options are feasible. For the specific facilities discussed at the time, there were fisheries immediately upstream from the dams, necessitating the use of Aqui-S20E rather than other anesthetics. Accordingly, EPA performed a risk assessment for Aqui-S20E, and included coverage for fish passage activities in the draft general permit with an action threshold for Aqui-S20E and with best management practices (BMPs) related to the use of Aqui-S20E. Later in the permit development process, when EPA was preparing to public notice the permit, EPA became aware of a preference for other anesthetics, such as MS-222, at other dam fish passage facilities. EPA made the decision to move forward with the permit development process rather than begin a new risk assessment for MS-222, and accordingly will not be providing coverage for MS-222 or other fish anesthetics for dam fish passage facilities in this general permit. EPA did not make any changes to the permit in response to this comment.

Comment 3. Limitations to permit coverage explains that discharges of water treated with Aqui-S20E are not covered if other non-discharge disposal options are “feasible.” The Corps requests EPA either define “feasible” or incorporate a definition of “feasible” from other regulatory context. (USACE p. 2)

Response. With the range in fish passage facility characteristics (size of facility, surrounding area land use and ownership, existing infrastructure) and fish sampling program characteristics (number of fish sampled, amount of anesthetic used, duration, frequency) it is challenging to define feasibility upfront. The permittee will need to investigate and document the degree to which non-discharge disposal options are feasible, taking these characteristics into account. EPA did not make any changes to the permit in response to this comment.

Tribal Sovereignty

Comment 4. The definition of “toxic pollutants” on page 58 (pdf) of the draft permit is the definition from the Clean Water Act (“CWA”) § 502(13). This definition alone reads quite broadly because it does not recognize that the CWA and accompanying regulations only apply to “the list of toxic pollutants or combinations of pollutants to [the CWA] shall consist of those toxic pollutants listed in the 40 C.F.R. 401.15”. CWA §307(a)(1). Accordingly, Tulalip requests that the following sentence immediately follows the current definition in the Draft Permit:

The list of applicable toxic pollutants or combination of pollutants shall consist of those toxic pollutants listed in 40 C.F.R 401.15.

Second, based on feedback from several tribes regarding the definition of “toxic substances”, the EPA proposed to replace reference to the Washington State Department of Ecology (“Ecology”) with a reference to Ecology’s water quality standards for toxic substances as described in WAC 173-201A-240. For the same reason that Tulalip and other tribes took issue with the reference to Ecology, Tulalip seeks to avoid citing to WAC 173-201A-240. This change does not address scenarios where tribal hatcheries discharge into tribal waters where tribal water quality standards exist. As you are aware, several of our member tribes have promulgated water quality standards for water bodies on their reservations. Therefore, we reiterate our previous request to make specific reference to tribal water quality standards as the applicable regulatory authority where it exists.

Further, Tulalip has Treatment as a State (“TAS”) authority under the CWA and Tulalip’s water quality standards are currently being evaluated by the EPA. It is Tulalip’s understanding that its water quality standards are likely to be fully promulgated before the expiration of Tulalip’s next NPDES permit. Accordingly, Tulalip proposes the following definition for toxic substances in the Draft Permit:

Toxic substances – Substances that when discharged above natural background levels in waters of the state have the potential either singularly or cumulatively to adversely affect characteristic water uses, cause acute or chronic toxicity to the most sensitive biota dependent upon those waters, or adversely affect public health as described in Appendix _ or in the Tulalip Tribes’ water quality standards that are hereafter approved by the EPA. (Tulalip p. 1-2; NWIFC p.2)

Response. With regard to the definition of “toxic pollutants”, EPA has added the following sentence at the end of the definition: “The list of applicable toxic pollutants or combination of pollutants shall consist of those toxic pollutants listed in 40 C.F.R 401.15”.

With regard to the definition of “toxic substances”, EPA agrees with this comment, and has changed the Definition of “Toxic Substances” in Permit Part XI as follows (see bold):

“Toxic substances - Substances that when discharged above natural background levels **to surface waters** ~~in waters of the state~~ have the potential either singularly or cumulatively to adversely affect characteristic water uses, cause acute or chronic toxicity to the most sensitive biota dependent upon those waters, or adversely affect public health, as described in WAC 173-201A-240 **for state waters, or in the equivalent section of EPA-approved tribal water quality standards for discharges to tribal waters.**”

Once the Tulalip Tribes have water quality standards that have been approved by EPA and are therefore in effect for Clean Water Act purposes, the changes described above in bold will capture their equivalent section as applicable for Tulalip Reservation waters.

Comment 5. A final point in our response to the preliminary draft, we identified inconsistencies between the penalty structure in the Washington State Department of Ecology General Permit, which covers state facilities (oftentimes located within the same watershed as tribal hatcheries) and this permit. The penalty structure under the state permit is strikingly different, with lower penalties and different language than described in the EPA draft permit. We again question why this higher standard is being applied to tribal and federal hatcheries, and how EPA plans to address this disparity. (NWIFC p. 2)

Response. The penalty structure outlined in the EPA permit is from the NPDES regulations at 40 CFR 122.41(a). The penalty structure in this general permit is standard template language that is in all EPA-issued NPDES permits in EPA Region 10. Ecology has NPDES permitting authority and issues NPDES permits pursuant to state law which can establish different penalty amounts from the federal penalty amounts. EPA has enforcement discretion in determining whether to take enforcement action against a facility that is in violation of the permit. EPA did not make any changes to the permit in response to this comment.

Comment 6. NWIFC member tribes operate hatcheries to support tribal fisheries and maintain the treaty right to harvest fish, which have been severely curtailed due to habitat loss and degradation. These facilities are valued by the tribes for the cultural, ecological, subsistence and commercial benefits they provide. Tribal hatcheries are important to all Washingtonians as they support the rearing and releasing of salmon and steelhead for harvest by Indian and non-Indian fisheries in the U.S. and Canada. The majority of salmon harvested in western Washington come from hatchery production, which is a necessary tool due to the lack of natural production.

Tribal hatchery facilities are regulated by EPA under the NPDES permits, as well as by state water quality standards where hatcheries discharge to state waters. This dual state and federal regulation of tribal facilities underscores the importance of EPA's trust responsibility as it relates to the issuance and enforcement of the permit. It is also worth noting that tribes with water quality standards are the appropriate regulating entities for discharges into tribal waters covered by tribal water quality standards. This fact should be expressly stated in the permit. Tribal hatchery programs operate under tight budget constraints with limited staff. Compliance with the permit includes expenses for such activities as transporting samples and laboratory analysis. These expenses can be burdensome for the smaller tribal facilities, which are often located a great distance from accredited labs. EPA should address these circumstances when crafting the final permit language. (NWIFC p.1-2)

Response. EPA acknowledges the role that tribal hatcheries play in supporting tribal and non-tribal fisheries in Washington and beyond, and in maintaining the treaty right to harvest fish, which is important to tribal culture and subsistence. EPA also acknowledges its trust responsibility generally, and as it relates to this particular general permit.

For tribes with Treatment as a State (TAS) with EPA approved water quality standards, tribal water quality standards were considered in the development of this general permit, and conditions were developed to be protective of these standards. This is described in the 2022 Fact Sheet Section IV.A. Also see response to Comment 4.

EPA considered the financial and administrative burden on tribal hatcheries in the development of permit conditions for CAAP facilities. The reduction in monitoring and reporting frequency in this general permit will reduce the financial and administrative burden for permittees, and the development of clearer templates in this permit (BMP Plan Template, QAPP Template, electronic NOI) are also intended to reduce the burden associated with permit coverage. In addition, EPA has created a new permit tier in this general permit for smaller, non-CAAP facilities, which reduces the burden for non-CAAP tribal facilities,

some of which are currently covered by the permit.

For specific parameters with challenging holding time requirements or other obstacles to compliance, EPA will continue to engage in compliance assistance and work towards agreeable solutions. EPA did not make any changes to the permit in response to this comment.

CWA § 401 Certification

Comment 7. We provided comments to Ecology on their Clean Water Act Section 401 certification of this permit, urging them to condition the permit to include evaluations of the “facility effects” of these aquaculture facilities (sent to EPA under separate cover). Examples of facility effects include but are not limited to disruption of native fish migration, dewatering of stream reaches, and competition between native fish and hatchery fish (after release). We urge EPA to support our request and work with Ecology and the operators of the aquaculture facilities to ensure that the facilities protect aquatic life and comply with Washington’s water quality standards. (WFC p. 6)

Response. CWA § 401 certifications provide for the certifying authority to include conditions in the certification that will ensure that the permit meets state and tribal water quality requirements, including water quality standards. Ecology included conditions in their CWA § 401 certification that was provided to EPA. EPA has included the conditions in the permit pursuant to CWA section 401(d). EPA did not make any changes to the permit in response to this comment.

Permit Conditions – Monitoring, Effluent Limits and Plans

PCBs (Permit Conditions – Monitoring, Effluent Limits and Plans)

Comment 8. It is unacceptable that EPA is proposing to delete all PCB monitoring requirements in the permit based on one limited study of PCB impacts from a state trout hatchery that is not regulated under the permit. Draft Fact Sheet, 54-55. This approach ignores extensive scientific research substantiating that Tribal and federal hatcheries in Washington are significant sources of fish tissue concentrations of PCBs. Finally, the approach in this permit is directly contrary to the position taken by the Spokane Tribe of Indians regarding the need for robust monitoring and control of PCBs discharged to the Spokane River. How will EPA determine if the releases from Tribal hatcheries are not causing or contributing to violation of PCB water quality standards without monitoring? How does EPA justify not requiring rigorous monitoring and Best Management Practice requirements to eliminate this loading of PCBs? Can EPA confirm that releases from hatcheries governed by this permit will be in compliance with applicable Federal, State and Tribal water quality standards?

Does EPA agree with the Spokane Tribe of Indians that toxic pollution discharged from hatcheries covered under this permit in the form of effluent and fish releases should be monitored to gather the most relevant and current data for the PCB TMDL that EPA is developing?

The PCB test method for its source identification study should have a target detection limit of 50 pg/L, similar to that required for all NPDES permitted discharges to the Spokane River. It is hypocritical of EPA to encourage extensive sampling and monitoring using an unpromulgated test method for other dischargers to the Spokane River watershed (included in the EPA comments on the draft 2022 NPDES permits on the Spokane River) and then disregard similar requirements for Tribal hatcheries, which are known and significant sources of PCBs. Can EPA explain why hatcheries governed by this permit that are known to be significant sources of PCBs do not have similar permit requirements and limits for PCBs similar to those being required by all other NPDES permitted discharges to the Spokane River?

The permit should require intake and effluent monitoring for all hatcheries covered under the permit that discharge to the Spokane River, its tributaries, or are the source of fish released in the Spokane River on the same terms as all other NPDES permits on the Spokane River. The permit should also require PCB monitoring of the effluent using EPA test method 1668C. (IEP)

Response. Under the previous general permit (2016-2021), EPA required PCB monitoring from 2 facilities in the Spokane Watershed. Due to confusion over the monitoring requirement, this monitoring was never conducted. Therefore, during the development of this permit, EPA did not have PCB data to conduct a reasonable potential analysis for these facilities. In the absence of such data and analysis, and upon further consideration, EPA initially considered a narrative, BMP based approach to controlling PCBs from their known sources within hatcheries in this permit. See response to comment 9. However, given that a PCB TMDL is in development that would benefit from PCB data from these sources, and given some of the points raised in this comment, EPA does agree that PCB monitoring from these facilities will be beneficial. The Spokane Tribe included such monitoring as a condition in their CWA § 401 certification for this permit for facilities within the Spokane Reservation. Specifically, the CWA § 401 certification condition states:

“The permittee shall monitor their effluent for PCB congeners and report its findings to the Spokane Tribe, WCB.”

Consistent with this CWA § 401 certification condition, EPA has included a provision requiring PCB monitoring for all facilities on the Spokane Reservation. See CWA Section 401(d). Currently, this would apply to the Ford State Fish Hatchery and the Spokane Tribal Fish Hatchery. If any additional facility located on the Spokane Reservation obtains coverage under the permit during the permit term, the facility would be required to conduct PCB monitoring.

Since the Spokane Tribe did not specify frequency, timing and reporting for the PCB monitoring condition in the CWA § 401 certification, EPA worked with the Spokane Tribe to determine these parameters. As a result, during the second public comment period, EPA accepted comments on the added specificity with regard to frequency, timing and reporting for PCB monitoring. EPA did not receive any comments during the second comment period related to PCB monitoring.

EPA did not make any changes to the permit in response to this comment. PCB monitoring was included in the final permit as a result of the Spokane Tribes CWA § 401 certification condition.

Comment 9. Why has EPA ignored the extensive scientific information regarding the loading of PCBs from hatcheries in developing the subject permit? Does EPA agree that information in the studies referenced in this letter is relevant regarding PCB loading from hatcheries? Why has EPA cherry picked one weak and general study to make a permit decision on PCB limits and monitoring in the permit?

Does EPA contend that it is appropriate to rely on one weak study conducted by Ecology at a state hatchery rather than the extensive weight of evidence that hatcheries in fact have a substantial impact on PCB concentrations in fish tissue within Washington waters? The data of PCB concentrations in Pacific Northwest hatcheries indicate levels of PCBs that exceed the Department of Ecology Fish Tissue Equivalent Concentrations for PCBs that would be a basis for section 303(d) impairment listings. What has EPA done to assess the relative contribution of hatchery releases to PCB concentrations in fish tissue? How can EPA assess the relative contribution of fish hatchery releases to fish tissue concentrations without rigorous tissue monitoring and characterizations by hatcheries?

Hatcheries covered under this permit that discharge to the Spokane River and its tributaries as well as hatcheries covered under the permit that release fish to the Spokane River should be required to develop a scope of work for a PCB Source Identification Study within two to three years of permit issuance that includes a list of raw materials used at the facility that may contain PCBs, a review of the facility identifying where PCB containing equipment was or may have been used, a sampling plan with proposed sampling locations, quality control protocols, sampling protocols, and PCB test methods.

The permit should provide a deadline within the term of the permit for submission of the study once the scope of work is approved by EPA. This condition is roughly the same as the PCB source identification study provisions in Washington and EPA NPDES permits on the Spokane River. All NPDES permitted facilities that have the potential to impact Lake Spokane and the Spokane River for PCBs should be subject to parallel conditions. If EPA deems this to be important work for individual NPDES permits, it is as equally important for hatcheries that discharge to the Spokane River as well as hatcheries that are a source of fish stocked within the watershed.

The hatcheries covered under the permit that discharge to the Spokane River, its tributaries, or are a source of fish released in the river should be required to prepare and submit a PCB Best Management Practices Plan within the term of the permit that includes the following elements:

- a. A list of members of a cross-functional team responsible for developing the BMP plan including the name of the designated leader.
- b. A description of current and past source identification, source control, pollution prevention, and pollutant loading reduction efforts.
- c. Preparation of a technical/economical evaluation of new BMPs. BMPs should include, but are not limited to: modification of equipment, facilities, technology, processes, and procedures; source control; remediation of any contaminated areas.
- d. A schedule for implementing economically feasible BMPs.
- e. Methods used for measuring progress towards the BMP goals and updating the BMP plan.
- f. Results from testing of any waste streams, including all effluent from the hatchery, taken in support of the BMP plan and PCB Source Identification Plan.
- g. Annual reports to EPA after submission of the BMP plan.

WA State hatcheries are required to eliminate the use of PCB containing products including fish feed unless it is “not cost effective or technically feasible to do so.” RCW 39.26.280(2). This statute applies to all state agencies and prohibits the knowing purchase of products containing PCBs above the practical quantification limit absent such documentation. Numerous studies have documented high concentrations of PCBs in fish feed. Regardless of whether the Food and Drug Administration (FDA) authorizes these concentrations, the use of such feed should be prohibited in the permit unless they can document the basis for not doing so under the statute. The permit should require for all of its hatcheries including the Spokane Tribal Hatchery, to prepare an assessment of alternative feed sources that do not contain PCBs or have reduced PCB levels. Hatcheries discharging or stocking fish in the Spokane River watershed should have an additional obligation to document the PCB levels in the fish feed used to rear the fish, PCB levels in the fish being stocked and the locations where the fish are being stocked. This information will be important to the work of the SRRTTF and future organizational structure in determining the loadings and sources of PCBs to the river. (IEP)

Response. The draft permit already includes specific BMP-based requirements, including requirements to minimize PCBs in fish feed and to limit overfeeding, that are generally consistent with the comment above. For facilities covered under the general permit within WRIA 54 (Lower Spokane) and WRIA 57 (Middle Spokane) or discharging within 1 mile upstream of waters impaired for PCBs, the BMP-based

approach proposed in the permit requires permittees to “implement procedures to eliminate the release of Polychlorinated Biphenyls (PCBs) from any known sources in the facility that come into contact with water, including pre-1980 paint or caulk.” (See Permit Part VI.B.4.e.(xiii) and 2022 Fact Sheet at pages 54-55). In regard to feed, the permit requires facilities within these WRIA’s or upstream of impairments to “use any available product testing data to implement purchasing procedures that give preference for fish food that contains the lowest level of PCBs that is economically and practically feasible”. (See Permit Part VI.B.4.e.(xiii)) These BMP requirements are targeted at reducing PCBs at their known sources in hatcheries. These existing BMPs also largely align with the BMP-based conditions proposed in this comment.

EPA held a public comment period with the BMP-based approach described above, where the public was encouraged to provide EPA with scientific information that was not directly considered or cited in the Fact Sheet, and to comment on the permit conditions. EPA appreciated being provided with relevant studies during the comment period and has taken them into consideration. EPA did not make changes to the permit in response to this comment.

Comment 10. Chemicals, such as polychlorinated biphenyls (PCBs), are known to be present in fish food and discharged through hatchery facilities. The State of Washington has been working on draft PCB reduction plans within their hatchery facilities, but we know of no limits that have been placed on discharges. As facilities are increasing these types of discharges associated with increased hatchery production, or changes in food sourcing, it is appropriate to analyze that information and present the findings to the public before re-issuing this general permit. (WFC p.2)

Response: The General Permit is written to be protective of water quality for all facilities covered by the permit which includes larger facilities. BMPs limit overfeeding and the potential release of uneaten feed, and other prohibited practices (Permit Part IV.B.), prohibited discharges (Permit Part IV.A.) and BMPs (Permit Part VI.B.) limit the release of solids. Total suspended solids (TSS) and settleable solids effluent limits place a cap on the discharge of solids which may contain nutrients, uneaten feed and fish feces.

The information regarding feed brand, type and quantity used per month at a given facility is available in facility annual reports. These annual reports are available through a Freedom of Information Act (FOIA) request. Wild Fish Conservancy submitted a FOIA on November 25, 2022, for NOIs and Annual Reports from all facilities covered under this General Permit between 2016 and the FOIA submittal date. The information released under this FOIA is available at:

<https://foiaonline.gov/foiaonline/action/public/submissionDetails?trackingNumber=EPA-R10-2023-000990&type=Request>.

EPA did not make any changes to the permit in response to this comment.

Comment 11. The permit should require all hatcheries covered under the permit that discharge to the Spokane River, its tributaries, or are the source of fish released in river to participate in the Spokane River Regional Toxics Task Force or future organizational structure on the same terms of every individual NPDES permitted facility on the Spokane River in Washington and Idaho. It is essential that the subject hatcheries work closely with everyone on the Task Force or its substitute to monitor, document, and reduce PCB loadings. (IEPC p. 9)

Response: Currently, there are two facilities covered by this permit that are located within the Spokane Watershed -- the Ford State Fish Hatchery, owned by the Washington Department of Fish and Wildlife (WDFW) and the Spokane Tribal Hatchery, owned by the Spokane Tribe of Indians. WDFW is already a party to the Spokane River Regional Toxics Task Force (Task Force). While EPA encourages entities to

participate in the Task Force, EPA does not have jurisdiction through this permitting action to require participation. EPA did not make any changes to the permit in response to this comment.

Drug and Chemical Use (Permit Conditions – Monitoring, Effluent Limits and Plans)

Comment 12. The other side of the coin of amplification of disease-causing organisms is an increase in the use of chemicals and drugs. They are not used to eliminate the discharge of these organisms to receiving waters but instead to keep infection rates inside the hatchery to an acceptable level. This draft General Permit, like its predecessor, has provisions for reporting usage of chemicals and drugs, through the annual report submitted by the facility’s operator, but neither this permit nor its predecessor provides any constraints. Chemicals and drugs must be used in accordance with their labels, unless “extra-label” use is approved by a veterinarian, or it is considered an Investigational New Animal Drug (INAD). Amounts have to be reported, but there are no considerations regarding ambient receiving water conditions such as flow or temperature.

EPA conducted a ESA Section 7 Biological Evaluation (BE) in 2015 that included a risk assessment for some of the chemical quantities commonly used in hatcheries. EPA and the Department of Ecology also studied formalin discharges at selected hatcheries in 2016 (the study was published in 2017). Our evaluation of state hatcheries indicates a sharp increase in the use of these chemicals, especially formalin, and the assumptions on chemical use employed in the risk assessment found in EPA’s 2015 Biological Evaluation may not reflect our more recent observations of production facilities in Washington and Oregon.

In the Fact Sheet (p. 72) EPA states

An additional focus of this re-initiation will be confirming that data collected during the previous permit cycle regarding fish drug and chemical discharge concentrations does not exceed the conservative assumptions used in the risk assessments conducted in the development of the 2016 BE.

EPA will reinitiate a focused consultation in coordination with the Services and intends to complete ESA consultation with the Services prior to issuance of this General Permit.

This implies that EPA has not yet examined the drug and chemical use of the past few years before releasing this draft permit for public comment. WFC has reason to believe, however, that the assumptions in both the BE and the 2016 study are no longer valid, as chemical use has changed, along with the changing climate.

WFC submitted a Freedom of Information Act request for drug and chemical use by holders of the current permit, but an expedited processing request was denied and we did not receive adequate information in time to inform these comments. Once we receive these records, we will be sure to make them available for the purposes of this permitting process.

The FDA label for at least one brand name of commonly used formalin, “Parasite-S” has changed since the BE and the 2017 study. The original language in the section entitled “Environmental Precautions” stated:

Do not discharge the contents of fish treatment tanks into natural streams or ponds without thorough dilution (greater than or equal to 10X). Do not discharge the contents of egg treatment

tanks without a 100X dilution. This will avoid damage to PARASITE-S sensitive phytoplankton, zooplankton, and fish populations and avoid depletion of dissolved oxygen.

The current label states:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authorities are notified in writing prior to discharge. Notify the NPDES authority that water quality benchmarks for the protection of freshwater aquatic life have been derived for formaldehyde by Hohreiter and Rigg, 2001 (Chemosphere, 45:471-486) following EPA guidelines. The acute benchmark value for formaldehyde is 4.58 mg/L (12.4 mg formalin/L). The chronic benchmark value is 1.61 mg/L (4.35 mg formalin/L). Water quality benchmark concentrations are not discharge limits, but may be used by the NPDES authority to derive such limits for the permit.

It is understandable that the manufacturer changed the label, as the older label implied that discharge was allowed provided the water was sufficiently diluted but legally, an FDA label cannot serve as a substitute for an NPDES permit. Unfortunately, the draft NPDES permit requires nothing except annually reporting formalin use. There is nothing constraining unlimited use and discharge of formalin if the “extra-label” use is sanctioned by a veterinarian. Unfortunately, the concern of the veterinarian is the health of the hatchery fish, and not the condition of the receiving water.

Formalin use has changed significantly over the life of the current permit. We compared formalin use as documented in the 2017 EPA sampling study to more recent annual reports in some select hatcheries tested in the previous biological evaluation:

| Facility | Formalin use (gallons/yr) from 2017 | Formalin use (gallons/yr) from more recent annual reports (yr) |
|--|-------------------------------------|--|
| Kalama Falls Hatchery | 1554 (2017) | 4370 (2020) 5105 (2021) |
| Wallace River Hatchery | 843 (2017) | 2214 (2021) 3072 (2020) |
| Priest Rapids Hatchery | 3493 (2017) | 4722 (2018) 4435 (2019) 3044 (2020) |
| *Many of the National Fish Hatcheries have no data in Washington Department of Ecology’s PARIS database. | | |

It appears that EPA considered recent formalin use to be sufficiently similar to past use because the Fact Sheet refers to the BE and the 2017 study and implies that the conclusions still hold as far as the chemicals that were assessed. EPA and the Services are going to reinitiate consultation, however, because, in part, other chemicals are being considered. We urge EPA to re-evaluate formalin because WFC believes that formalin has the potential to be used in much greater amounts than was the case when the BE and 2017 study were developed. We also urge EPA to again solicit public comments after this re-evaluation and completion of ESA consultation on this draft permit.

In addition to increased use of formalin, hatcheries in Washington have increased their use of other drugs and chemicals. For example, in 2018 the Kalama Falls Hatchery (WDFW) used 992.5 lbs of feed containing 4.0 g terramycin/lb, but increased its use to 1125 lbs in 2020. Again, we believe EPA needs to re-evaluate all chemical and drug use, complete ESA Section 7 consultation with the Services, and then re-solicit public comment afterwards. (WFC p. 3-5)

Response. For the 2015 Biological Evaluation (2015 BE), EPA selected drugs and chemicals to evaluate based on their potential to be discharged in facility effluent to receiving waters. EPA made a not likely to adversely affect (NLAA) determination for formalin impacts in the 2015 BE and received concurrence from the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS). In the 2015 BE, EPA committed to capturing more detailed information regarding formalin use in facility annual reports in the upcoming permit cycle and committed to conducting a formalin study on effluent from facilities covered by this permit.

According to the facility annual reports from this permit cycle, formalin use and discharge by hatcheries covered under this general permit has not increased during the previous permit term. This is reflected in the Annual Reports which were shared with WFC in response to the FOIA request referenced in the comment. All documents that are responsive to the FOIA request are available at this web address: <https://foiaonline.gov/foiaonline/action/public/submissionDetails?trackingNumber=EPA-R10-2023-000990&type=Request>

The formalin study EPA committed to conducting in the 2015 BE was completed in 2017. Formaldehyde monitoring was conducted at facilities while they used Formalin, and measured environmental concentrations of formalin indicated an acceptable level of ecological risk. See the [2017 Formalin study](#) for more details. These measured environmental concentrations in the formalin study are much more reliable than the conservative, calculated expected environmental concentrations in the 2015 BE.

These measured and calculated environmental concentrations from this permit cycle reaffirm the NLAA determination in the 2015 BE. EPA has no other new information suggesting the need for new permit conditions related to formalin. Taking all lines of evidence into account, EPA has concluded that formalin in hatchery effluent will not result in adverse effects on fish survival, reproduction and growth. EPA articulated this reasoning in the 2022 request for informal ESA consultation with USFWS and NMFS on the reissuance of this general permit, and carried forward our NLAA determination for formalin affects. EPA received concurrence from NMFS and USFWS on our NLAA determinations in December 2022 and May 2023, respectively.

With regard to other drugs and chemicals used at hatcheries with the potential of being discharged in facility effluent, the 2015 biological evaluation still reflects the best available science.

The hazard quotients for other chemicals evaluated in the 2015 Biological Evaluation are as follows (hazard quotients less than 1.0 are indicative of acceptable levels of ecological risk; hazard quotients greater than or equal to 1.0 are indicative of a potential for unacceptable ecological risks to threatened and endangered species):

- Potassium Permanganate – HQ 0.191
- Chloromine T – HQ 0.0064
- Povidone-Iodine – HQ .000035
- Hydrogen Peroxide – HQ 0.029

For these drugs and chemicals that were considered in 2015 as having the potential to be discharged to receiving waters, the hazard quotients are very low – the use of these chemicals would need to increase dramatically (or new information regarding toxicity would need to be drastically different) in order for the hazard quotient to increase to 1. Further, the approach to calculating EECs included a series of conservative assumptions (See 2015 BE). EPA has no information to suggest that these hazard quotients have changed substantially. EPA did not make any changes to the permit in response to this comment.

Comment 13. The Columbia River Inter-Tribal Fish Commission (CRITFC) supports the proposed NPDES General Permit #WAG130000 with the inclusion of Fish Sampling Programs at Dam Fish Passage Facilities. The permit will allow discharge of water that has been treated with fish anesthetic (Aqui-S20E). This anesthetic is an essential tool in valuable research programs that CRITFC and other fishery co-managers conduct at the facilities. Aqui-S20E, an anesthetic covered under the U.S. Fish and Wildlife Service’s Investigational New Animal Drug program, is the only conditionally approved immediate-release fish anesthetic available. Immediately releasing anesthetized fish is crucial for this program since the sampling occurs during active tribal and non-tribal fisheries. The updated General Permit #WAG130000 would allow NPDES coverage for the discharge of Aqui-S20E treated water. (CRITFC p.1)

Response. Comment noted. EPA did not make any changes to the permit in response to this comment.

Nutrient Loading (Permit Conditions – Monitoring, Effluent Limits and Plans)

Comment 14. The nitrogen loading of some of these facilities may be similar to municipal wastewater treatment plants, and those discharging to impaired waterways should have permit conditions similar to facilities subject to the Puget Sound Nutrient General Permit. Effluent limitations should be consistent with the developed Total Maximum Daily Load (TMDL) that was prepared for the receiving water. (WFC p.1)

Response. Under the previous general permit, facilities with an offline settling basin were required to collect effluent and receiving water ammonia data. EPA assessed this data and determined that there is no reasonable potential for these facilities to cause or contribute to exceedances of ammonia criteria, and therefore did not have a basis to apply ammonia limits.

Under the draft general permit, EPA applied monitoring requirements for multiple nutrient parameters to all CAAP facilities that discharge to waters impaired for dissolved oxygen. This is in line with the approach taken by Ecology to discharges within Puget Sound. EPA did not make any changes to the permit in response to this comment.

Comment 15. Table 2 in Part IV of the Fact Sheet does not include the areas of Puget Sound which are in Category 5 (waters requiring a TMDL) for dissolved oxygen. Facilities covered under this general permit that discharge to Puget Sound should monitor and report the concentrations of nitrogenous compounds and CBOD5 in their effluent, consistent with the requirements found in Ecology’s Puget Sound Nutrient General Permit. (WFC p. 2)

Response. Table 2 of the Fact Sheet lists the immediate receiving waters for each facility covered by the general permit and lists any impairments in that receiving water or within 1 mile downstream. CAAP facilities that discharge to a Puget Sound tributary river that is impaired for DO, or that discharge within 1 mile of a Puget Sound DO impairment, are required to monitor for nutrient parameters as described in the response to comment 14 above, and as described in Part VI.D.1. (pages 53-54) of the 2022 Fact Sheet. EPA did not make any changes to the permit in response to this comment.

Disease Spread (Permit Conditions – Monitoring, Effluent Limits and Plans)

Comment 16. Biological agents: Through effluent discharges and release of diseased fish, hatcheries (and perhaps some research facilities) are discharging microbes (e.g. fungi, bacteria, protozoans, viruses) that can adversely affect wild fish and the surrounding aquatic environment. Unnaturally high densities of confined animals are known to result in amplification of such microbes. EPA should place conditions into this permit requiring monitoring and subsequent reporting as a first step, then effluent limitations on microbial agents if necessary. In addition, the requirement for a facility operator to develop “procedures” to “minimize” the release of diseased animals runs contrary to a common hatchery practice to release fish early in the event of a disease outbreak. The permit should prohibit the transfer or release of diseased fish. (WFC p. 1)

Fish hatcheries propagate and grow fish in conditions and at densities far more extreme than anything found in nature, and factors such as temperature, other water quality parameters, feeding regimes (to name only a few) are controlled as much as practical by hatchery operators. Despite this, the very high densities of confined fish that hatcheries routinely operate at are perfect incubators for disease-causing organisms. Wild Fish Conservancy staff have been researching how aquaculture facilities “amplify” disease-causing organisms, and through the discharge into public waters, have facilitated their spread. And these are not just disease-causing organisms native to the Pacific Northwest, but exotic ones as well brought in through the aquaculture industry. Fish disease-causing organisms can be released, and distributed to infect biota in the natural environment, in the effluent discharged by a facility as well as through the release of diseased hatchery fish.

There are no numeric criteria for fish disease-causing organisms, but narrative criteria found in Washington’s water quality standards (WAC 173-201A-260(2)(a)), prohibit the discharge of “deleterious material,” and apply to all fresh and marine waters of the state. Facilities discharging these disease-causing organisms should, at a minimum, be required to periodically monitor their effluent. A panel of fish-health and water-quality experts should be assembled to develop appropriate limits for these facilities.

Control of biological agents through water quality standards is not unheard of, and in fact Washington’s water quality standards include a numeric criterion for *E. coli* to protect human health in waters designated for the primary contact recreation use. There is no reason why an effort cannot be made in this case to control the discharge of biological agents deleterious to wild fish, many of which are also protected under the Endangered Species Act. EPA needs to include an analysis of the discharges of disease-producing organisms in its ESA Section 7 Biological Evaluation.

Section VI.B.4.(a)(v)(h) states: “[p]rocedures must be implemented to minimize the release of diseased aquatic animals from the facility.” Wild Fish Conservancy believes that this provision needs to include a prohibition on the release of diseased fish. It is common hatchery practice to prematurely release fish (e.g., salmon smolts) earlier than originally intended if a disease outbreak occurs. For the most part, hatcheries are unconcerned with receiving waters or wild native fish, except insofar as they affect hatchery operations (e.g., the common hatchery practice of restricting migration upstream of the hatchery in disregard of the needs of wild fish or the ecosystem). A threshold of disease incidence in a raceway or tank, when exceeded, should require hatchery operators to euthanize and properly dispose of all infected fish in the affected raceway or tank. (WFC p. 2-3)

Response. The discharge of disease-causing microbes from upland aquaculture facilities in effluent streams is not considered to be a widespread issue. EPA is not aware of scientific literature documenting the discharge of disease-causing microbes in upland aquaculture effluent streams and associated impacts,

or any potential effluent limits or monitoring requirements for microbes that would mitigate this potential. Although EPA does not consider this to be a significant risk, there is a narrative, BMP-based approach in the general permit that plays a role in mitigating the occurrence and spread of disease within hatcheries and beyond hatcheries / between watersheds. Research and production facilities, which do not intend to release fish, are required under the permit to develop an Aquatic Animal Escape Plan (Permit Part VI.C), which must focus on escape prevention and on recapture in the event of an escape. This will be effective at minimizing the external impact of any disease occurrence within this subset of covered facilities.

For all facilities (including enhancement facilities that release fish), BMPs focused on removal and disposal of animal mortalities (Permit Part VI.B.v.d), and on minimizing release of diseased aquatic animals (Permit Part VI.B.v.h) are focused on reducing the spread of disease within and outside of facilities. Additionally, there are BMPs and effluent limits focused on cleaning, disinfection, and on minimizing the release of suspended and settleable solids. Collectively, EPA considers these BMP-based approaches and effluent limits to be sufficient in minimizing the risk of disease spread. EPA did not make any changes to the permit in response to this comment.