Response to Comments

Bonneville Project, WA0026778
The Dalles Lock and Dam, WA0026701
John Day Project, WA0026832
McNary Lock and Dam, WA0026824

December 15, 2022

Summary

On March 18, 2020, the U.S. Environmental Protection Agency Region 10 (EPA) issued a public notice for the proposed issuances of National Pollutant Discharge Elimination System (NPDES) permits for Bonneville Project (WA0026778), The Dalles Lock and Dam (WA0026701), John Day Project (WA0026832), and McNary Lock and Dam (WA0026824). The public comment period closed May 4, 2020.

On January 15, 2021, EPA issued a second public notice for the above facilities with proposed heat limits from the temperature total maximum daily load (TMDL) for the Columbia and Lower Snake Rivers (Columbia River Temperature TMDL). EPA requested comments limited to the proposed heat limits. The second public comment period closed February 16, 2021.

On September 16, 2022, EPA issued a third public notice for the above facilities to address objections raised by the Oregon Department of Environmental Quality (Oregon DEQ) under Clean Water Act (CWA) Section 401(a)(2) for temperature. EPA requested comments limited to proposed permit conditions to address Oregon DEQ's objection. The third public comment period closed on October 17, 2022.

EPA has summarized similar comments from different entities in this document when developing its responses. The full comments for the 2020, 2021, and 2022 fact sheets and draft permits can be viewed at https://www.epa.gov/npdes-permits/discharge-permits-federal-hydroelectric-projects-lower-columbia-river. EPA has separated this document into three sections: (1) comments received during the 2020 public comment period; (2) comments received during the 2021 public comment period, and (3) comments received during the 2022 public comment period.

During the first public comment period, EPA received comments from the following:

- American Public Power Association (APPA)
- Bureau of Reclamation (BOR)
- Bonneville Power Administration (BPA)
- Confederated Tribes and Bands of the Yakama Nation (Yakama Nation)
- Edison Electric Institute (EEI)
- National Hydropower Association (NHA)
- Northwest RiverPartners (NRP)
- Paul Pickett
- PNGC Power
- Public Power Council (PPC)

- Public Utility District No. 1, Cowlitz County (Cowlitz PUD)
- Snake River Waterkeeper and Columbia Riverkeeper (SRW and CRK)
- U.S Army Corps of Engineers (USACE)
- Utility Water Act Group (UWAG)

During the second public comment period, EPA received comments from the following:

- BPA
- Columbia River Inter-Tribal Fish Commission (CRITFC)
- Yakama Nation
- Confederated Tribes of the Umatilla Indian Reservation (CTUIR)
- Marc Gauthier
- NRP
- PPC
- Jessica Spurr
- USACE
- Washington Department of Ecology (Ecology)

During the third public comment period, EPA received comments from the following:

- BPA
- CRK
- Oregon DEQ
- NRP
- PPC
- The Freshwater Trust
- USACE
- BOR

This document presents the comments received and provides corresponding response to those comments. As a result of comments received, the following revisions were made to the permits:

Changes in response to public comment:

- EPA has changed the Schedule of Submissions and corresponding sections due date in the permits from December 31 to February 28 for the best management practices (BMP) Annual Report (Section II.B.), environmentally acceptable lubricants (EAL) Annual Report (Section II.C.), polychlorinated biphenlys (PCB) Annual Report (Section II.D.), cooling water intake structure (CWIS) Annual Report (Section II.E.), and the Temperature Data Report submittals (Section I.8.b).
- EPA has made the following changes (see bold) in Section I.B.4 of the permits: "The permittee must observe the surface of the receiving water in the vicinity of where the effluent enters the surface water **at a minimum of once per week and report in monthly DMRs.** The permittee must maintain a written log of the observation which includes the date, time, observer, and whether there is presence of a visible oil sheen, floating, suspended or submerged matter. **If the**

permittee observes a visible oil sheen at any time, they must record it in the log. The log must be retained and made available to the EPA or Ecology."

- EPA has changed the heat limits and the timeframe that apply to the limits (June to October) to be consistent with revised wasteload allocations (WLAs) in the 2021 Columbia River Temperature TMDL in Section I.B of the permits.
- EPA has changed the effluent limitations tables in all permits from "Measurement" to "Measurement/Calculation" for flow.
- EPA has added the following language in the effluent limitation tables in Section I.B. of the permits for oil and grease: "Maximum daily effluent limit is the highest allowable daily discharge. The daily discharge is **calculated as** the average **measurement of a pollutant** during a calendar day.."
- EPA has added the following language in Section II.B.5 of the permits (see bold): "Reporting of BMP incidents. Prepare a written report to EPA and Ecology after the incident has been successfully addressed, describing the circumstances leading to the incident, corrective actions taken, and recommended changes to operation and maintenance practices and procedures to prevent incident recurrence. **The report must be submitted according to Section III.H.**"
- EPA has changed language in Section II.D.1(a) of the permits from "A list describing all sources of PCBs" to "A general description of sources of PCBs."
- EPA has clarified language in Section II.D. of the permits (see bold):
    - A description of actions that will be taken during the remainder of the permit cycle to prevent, **track, and address** releases of PCBs from potential PCB sources listed in Part 1.a, which must include BMPs that will decrease the likelihood of PCB releases.
    - Progress to date in **implementing the PCB Plan, evaluating the effectiveness of BMPs in preventing** PCB releases.
    - **How new actions will be taken to optimize effectiveness** during the remainder of the permit cycle.
- EPA has added "including the most recent Fish Operations Plan and in-season Technical Management Team meetings" in Section II.E. of the permits.
- EPA has added language to the BMP Plan in Appendix B, "Inventory of Exposed Materials," of the permits to define "significant" as quantities over 55 gallons.
- EPA has removed the "Sampling Data" requirement from Appendix B of the BMP Plan in the permits.
- EPA has added the Oil-water separator outfall 16 to the Bonneville Project permit on the title page and effluent limitation table.
- EPA has removed outfalls 018, 019, 022, 023, 026, 027, 028, 029, 030, and 031 that are no longer discharging from the title page of The Dalles Lock and Dam permit and the effluent limitation tables.
- EPA has consolidated effluent tables in permits, where the limits and monitoring are identical.

Changes in Response to Ecology Final 401 Certifications and Oregon DEQ Objections under CWA Section 401(a)(2)

EPA has added all of the Ecology 401 certification conditions and has added permit conditions to address Oregon DEQ's objections under CWA Section 401(a)(2) in Section II. A-F and the Schedule of Submissions of the permits. This section describes the conditions for all the permits except for McNary Lock and Dam, which are described in the following section.

Below are the 401 certification conditions related to the QAP, BMPs, EALs, PCBs, CWIS, temperature and total dissolved gases (TDG). EPA has added language to relevant sections regarding EPA and Ecology approval of the QAP, BMP, EAL, and CWIS reports and plans and Ecology and Oregon DEQ review and approval of WQAP reports and plans. For plans requiring EPA or Ecology approval, except the WQAP, plans are considered approved if the agencies do not respond within 30 days after a plan has been submitted.

QAP – Related 401 Certification Permit Conditions

- EPA has modified Section II.A and Schedule of Submissions in the permits to add language from Ecology's 401 certifications related to QAPs (see bold):
    - Within 180 days of the effective date of this permit, the permittee must submit **a QAP to EPA for review and approval**. The permittee may submit **the QAP** as an electronic attachment to the DMR.
    - The permittee must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP **and submit the revised QAP to EPA for review and approval**.

BMP – Related 401 Certification Permit Conditions

- EPA has modified Section II.B and the Schedule of Submissions of the permits to add language from Ecology's 401 certifications related to BMPs (see bold):
    - The permittee must submit a **BMP Plan to EPA for review and approval** within 180 days of the effective date of the permit. The permittee may submit the BMP Plan as an electronic attachment to the DMR. The file name of the electronic attachment must be as follows: YYYY_MM_DD_WA00XXXXX_BMP_05899, where YYYY_MM_DD is the date that the permittee submits **the BMP Plan**.
    - Under BMP Plan Modification in Section II.B in each of the permits, EPA has added the following language: "**The permittee must submit the revised BMP plan to EPA for review and approval.**"
    - **The BMP Annual Report must report sampling data that is designed in a way to quantify source identification and reductions in order to substantiate the adaptive management process. The sample and design and data analysis including methods and method reporting levels, must be included in the QAP (Part II.A) and updated as necessary.**
    - **The BMP Annual Report must include the adaptive management procedures implemented based on the results of all monitoring used to evaluate BMPs.**
    - Under Signature and BMP Plan Review (Part II.B.4.c), EPA has added the following language: "Within 30 days of such notification from the Director, (or as otherwise provided by the Director), or an authorized representative, the permittee shall make the required changes to the BMP Plan and shall submit to the Director a **revised BMP Plan with the requested changes for review and approval.**

EAL – Related 401 Certification Permit Conditions

- EPA has modified Section II.C. and the Schedule of Submissions of the permits to add language from Ecology's 401 certifications related to EALs (see bold):

- "The permittee must submit the **initial** EAL Annual Report by February 28 following the first calendar year of permit coverage **to EPA and Ecology for review and approval**. The permittee must submit **subsequent** EAL Annual Reports **to EPA for review and approval** by February 28 **each year**. **The EAL Annual Reports must be comprehensive, complete, accurate, and concur with the state's interpretation of technical feasibility.** Annual EAL reports must be signed in accordance with Part V.E. ("Signatory Requirement")."
- The permittee may submit the EAL Annual Report as an electronic attachment to the DMR. The file name of the electronic attachment must be as follows: YYYY_MM_DD_WA00XXXXX_EAL_05899, where YYYY_MM_DD is the date that the permittee submits the **EAL Annual Report**.

PCB-Related 401 Certification Permit Conditions

- EPA has modified Section II.D and Schedule of Submissions of the permits to add language from Ecology's 401 certifications related to PCBs (see bold):
  - The permittee must submit the PCB Management Plan (PMP) to EPA and Ecology within one year from the effective date of the permit **for review and approval.**
  - The PCB Annual Report must be submitted to **EPA for review and approval**. The permittee must prepare a PCB Annual Report by February 28 following the first calendar year of permit coverage, and annually thereafter. The file name of the electronic attachment must be as follows: YYYY_MM_DD_WA00XXXXX_PCB_Annual_Report_55099, where YYYY_MM_DD is the date that the permittee submits the report. The PCB Annual Report must be retained on site and made available to EPA and Ecology upon request.

CWIS – Related 401 Certification Permit Conditions

- EPA has modified Section II.E. and Schedule of Submissions of the permits to add language from Ecology's 401 certification conditions related to the cooling water intake structure (CWIS) (see bold):
  - The permittee must prepare an initial CWIS Annual Report by February 28 following the first calendar year of permit coverage and submit it **to EPA and Ecology for review and approval**. **The first annual report must include information on all cooling water intake structures that address the missing application submittal requirements of 40 CFR 122.21(r)(2) and (3) and applicable provisions of paragraphs (4), (5), (6), (7) and (8).** The permittee must submit **subsequent CWIS Annual Reports to EPA for review and approval** by February 28 **each year**.
  - **The Permittee must develop a CWIS operations and maintenance manual that includes procedures for evaluating both impingement and entrainment related to the CWIS. This does not include the intake for hydroelectric generating waters.**
  - **Nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act.**

Temperature – Related 401 Certification Permit Conditions

- EPA has added the following language at Section II.F. and Schedule of Submissions of the permits from Ecology's 401 certification conditions related to temperature:

  - The permittee must implement temperature control strategies and meet the load allocations in the Columbia and Lower Snake Rivers Temperature TMDL (RCW 90.48.080 and WAC 173-201A-510(5)).
  - The permittee must consult with Ecology to develop a water quality attainment plan (WQAP) per the conditions below:
    - The WQAP shall include all applicable requirements in WAC 173-201A-510(5), *Compliance schedule for Dams*, and must include a detailed strategy for achieving **Washington's water quality standards** for temperature and associated designated uses, including but not limited to, conditions in fish bypass systems of the dam.
    - The permittee must provide the scope of the WQAP to Ecology for review one year after the permit effective date.
    - The permittee must provide the final WQAP to Ecology for approval within two years of the permit effective date.
    - The permittee must submit a progress report to Ecology for approval within six years of the effective permit date. The permittee must submit a summary report to Ecology for approval within nine years of the permit effective date and prior to the end of the ten-year dam compliance period.
    - The permittee must contact EPA if Ecology does not approve the final WQAP or summary report within 60 days of submittal.
- The permittee must consult with Oregon DEQ on the following conditions of the WQAP per the conditions below:
  - **The WQAP must include a detailed strategy for achieving Oregon's water quality standards for temperature at Permit Part II.F.3.b., including interim milestones and timelines for when the strategy will be implemented.**
  - The permittee must provide the final WQAP to Oregon DEQ within two years of the permit effective date for review and approval of actions to achieve the following standards:
    - 13^{o}C for the salmon and steelhead spawning through fry emergence designated use at RM 141.5-143.5 in the Lower Columbia River (to protect chum salmon spawning) from October 15 – March 31 below Bonneville Dam [OAR-340-041-0101-Table 101B; OAR 340-041-0028(4)(a)];
    - Seasonal thermal pattern in the Columbia River [OAR 340-041-0028(4)(d)]; and
    - Cold water refugia [OAR 340-041-0028(4)(d)].
  - The permittee must submit a progress report to Oregon DEQ for approval within six years of the effective permit date. The permittee must submit a summary report to Oregon DEQ for approval of the actions for the standards at Permit Part II.F.3.b.
  - The permittee must contact EPA if Oregon DEQ does not approve the final WQAP or summary report within 60 days of submittal.
- The permittee must comply with total dissolved gas standards in WAC 173-201A-200(1)(f), or any future modification to the standards thereof.
- The permittee must submit WQAP reports to Ecology and Oregon DEQ to the following addresses, unless agreed upon by Ecology and Oregon DEQ:

Water Quality Program
Washington Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Columbia River Coordinator
Oregon Department of Environmental Quality
700 NE Multnomah St. Ste 600
Portland, OR 97232

TDG – Related 401 Certification Permit Conditions

- EPA added the following language to Section II.F. of the permits from Ecology's 401 certifications related to TDG:
    - The permittee must comply with total dissolved gas standards in WAC 173-201A-200(1)(f) and OAR 340-041-0031(1)(2), or any future modification to the standards thereof.

Changes in Response to Ecology Final 401 Certifications and Oregon DEQ Objections under CWA Section 401(a)(2) for McNary Lock and Dam

EPA has added all Ecology 401 certification conditions in Section II. A-E and the Schedule of Submission of the permit for the McNary Lock and Dam and added submittal information to Ecology in Section III. B of the permit.

Below are the 401 certification conditions related to the QAP, BMPs, EALs, PCBs, and WQAPs for McNary Lock and Dam. EPA has added language to relevant sections regarding EPA and Ecology approval of QAP, BMP, and EAL reports and plans and Ecology and Oregon DEQ approval of WQAP reports and plans. For plans requiring EPA or Ecology approval, plans are considered approved if the agencies do not respond within 30 days after a plan has been submitted.

QAP – Related 401 Certification Permit Conditions

- EPA has modified Section II.A and Schedule of Submissions of the permits to add language from Ecology's 401 certifications related to QAPs (see bold):
    - Within 180 days of the effective date of this permit, the permittee must submit **a QAP to EPA for review and approval**. The permittee may submit **the QAP** as an electronic attachment to the DMR.
    - The permittee must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP **and submit the revised QAP to EPA for review and approval**.

BMP – Related 401 Certification Permit Conditions

- EPA has modified Section II.B and Schedule of Submissions of the permits to add language from Ecology's 401 certifications related to BMPs (see bold):
    - The permittee must submit a **BMP Plan to EPA for review and approval** within 180 days of the effective date of the permit. The permittee may submit the BMP Plan as an electronic attachment to the DMR. The file name of the electronic attachment must be as follows: YYYY_MM_DD_WA0026824_BMP_05899, where YYYY_MM_DD is the date that the permittee submits the BMP Plan."

- Under BMP Plan Modification in Section II.B in each of the permits, EPA has added the following language: "**The permittee must submit the revised BMP plan to EPA for review and approval.**"
- **The BMP Annual Report must report sampling data that is designed in a way to quantify source identification and reductions in order to substantiate the adaptive management process. The sample and design and data analysis including methods and method reporting levels, must be included in the QAP (Part II.A) and updated as necessary.**
- **The BMP Annual Report must include the adaptive management procedures implemented based on the results of all monitoring used to evaluate BMPs.**
- Under Signature and BMP Plan Review (Part II.B.4.c), EPA has added the following language: "Within 30 days of such notification from the Director, (or as otherwise provided by the Director), or an authorized representative, the permittee shall make the required changes to the BMP Plan and shall submit to the Director a **revised BMP Plan with the requested changes for review and approval.**

EAL – Related 401 Certification Permit Conditions

- EPA has modified Section II.C. and the Schedule of Submissions of the permits to add language from Ecology's 401 certifications related to EALs (see bold): "The permittee must submit the **initial** EAL Annual Report by February 28 following the first calendar year of permit coverage **to EPA and Ecology for review and approval**. The permittee must submit **subsequent** EAL Annual Reports **to EPA for review and approval** by February 28 **each year**. **The EAL Annual Reports must be comprehensive, complete, accurate, and concur with the state's interpretation of technical feasibility.** Annual EAL reports must be signed in accordance with Part V.E. ("Signatory Requirement")."
- The permittee may submit the EAL Annual Report as an electronic attachment to the DMR. The file name of the electronic attachment must be as follows: YYYY_MM_DD_WA0026778_EAL_05899, where YYYY_MM_DD is the date that the permittee submits the **EAL Annual Report**.

PCB-Related 401 Certification Permit Conditions

- EPA has modified Section II.D. and the Schedule of Submissions of the permits to add language from Ecology's 401 certifications related to PCBs (see bold):
  - The permittee must submit the PMP to EPA and Ecology within one year from the effective date of the permit **for review and approval.**
  - The PCB Annual Report must be submitted to **EPA for review and approval**. The permittee must prepare a PCB Annual Report by February 28 following the first calendar year of permit coverage, and annually thereafter. The file name of the electronic attachment must be as follows: YYYY_MM_DD_WA0026824_PCB_Annual_Report_55099, where YYYY_MM_DD is the date that the permittee submits the report. The PCB Annual Report must be retained on site and made available to the EPA and Ecology upon request.

Temperature – Related 401 Certification Permit Conditions

- EPA has added the following language at Section II.E. of the permits from Ecology's 401 certification conditions related to temperature:
    - The permittee must implement temperature control strategies and meet the load allocations in the Columbia and Lower Snake Rivers Temperature TMDL (RCW 90.48.080 and WAC 173-201A-510(5)).
    - The permittee must consult with Ecology to develop a water quality attainment plan (WQAP) per the conditions below:
        - The WQAP shall include all applicable requirements in WAC 173-201A-510(5), *Compliance schedule for Dams*, and must include a detailed strategy for achieving **Washington's water quality standards** for temperature and associated designated uses, including but not limited to, conditions in fish bypass systems of the dam.
        - The permittee must provide the scope of the WQAP to Ecology for review one year after the permit effective date.
        - The permittee must provide the final WQAP to Ecology for approval within two years of the permit effective date.
        - The permittee must submit a progress report to Ecology for approval within six years of the permit effective date. The permittee must submit a summary report to Ecology for approval within nine years of the permit effective date and prior to the end of the ten-year dam compliance period.
        - The permittee must contact EPA if Ecology does not approve the final WQAP or summary report within 60 days of submittal.
    - The permittee must consult with Oregon DEQ on the following conditions of the WQAP per the conditions below:
        - **The WQAP must include a detailed strategy for achieving Oregon's water quality standards for temperature at Permit Part II.E.3.b., including interim milestones and timelines for when the strategy will be implemented.**
        - The permittee must provide the final WQAP to Oregon DEQ within two years of the permit effective date for review and approval of actions to achieve the following standards:
            - 13^{o}C for the salmon and steelhead spawning through fry emergence designated use at RM 141.5-143.5 in the Lower Columbia River (to protect chum salmon spawning) from October 15 – March 31 below Bonneville Dam [OAR-340-041-0101-Table 101B; OAR 340-041-0028(4)(a)];
            - Seasonal thermal pattern in the Columbia River [OAR 340-041-0028(4)(d)]; and
            - Cold water refugia [OAR 340-041-0028(4)(d)].
        - The permittee must submit a progress report to Oregon DEQ for approval within six years of the permit effective date. The permittee must submit a summary report to Oregon DEQ for approval of the actions for the standards at Permit Part II.E.3.b.
        - The permittee must contact EPA if Oregon DEQ does not approve the final WQAP or summary report within 60 days of submittal.
    - The permittee must comply with total dissolved gas standards in WAC 173-201A-200(1)(f), or any future modification to the standards thereof.

- The permittee must submit WQAP reports to Ecology and Oregon DEQ to the following addresses, unless agreed upon by Ecology and Oregon DEQ:

  Water Quality Program
  Washington Department of Ecology
  PO Box 47600
  Olympia, WA 98504-7600

  Columbia River Coordinator
  Oregon Department of Environmental Quality
  700 Multnomah St. Ste 600
  Portland, OR 97232

Editorial Corrections to Permits

EPA has corrected the following editorial errors in the permits for the four Lower Columbia River hydroelectric facilities.

- EPA has corrected typos, formatting, and punctuation errors and added abbreviations in the permits
- EPA has corrected the reference in the Schedule of Submissions, Temperature Data Report from I.B.11(a) to I.B.11(b).
- EPA has corrected Section II.E.3.b to read: "Timeline for using EALs for equipment, where technically **feasible**." The draft permits had incorrectly stated "where technically **infeasible**."
- EPA has changed the Temperature Data Report Section of the Schedule of Submissions to reflect the language in the permit in Section I.B.8.b., which directs permittees to submit the Temperature Data Report annually. The Schedule of Submissions had previously incorrectly stated that the permittee should submit the Temperature Data Report with their next permit application.
- EPA has clarified the language in Section I.B.8.b. to clarify when Temperature Data Reports are to be submitted (see bold): "The file must be submitted to EPA and Ecology by February 28 **following the first calendar year of permit coverage, and annually thereafter** along with the placement log
- EPA has corrected grammar in Section II.B.5.e. as follows (see bold): "Reporting of BMP incidents. Prepare a written report to EPA and Ecology, after the incident has been successfully addressed, **describing** the circumstances leading to the incident, corrective actions taken, and recommended changes to operation and maintenance practices and procedures to prevent incident recurrence.
- EPA has deleted Section V.K *Notice of Termination of Discharge* from the permits. This language is not necessary for individual permits because 40 CFR 122.64 applies to the termination of an individual permit.
- EPA updated the financial penalty amounts in Section IV.B to reflect current regulations which reflect inflation over time.
- Section I.B.19 of the Dalles permit was edited to remove the language "for the reporting period" for consistency with the other permits.
- In Section II.A.2, the links to QAP guidance documents were corrected to reflect new URLs.

- In Section IV.J, EPA added a reference to Permit Part III.G.4 for the purpose of providing contact information for the Planned Changes reporting requirement.
- EPA removed the definitions of ‘composite’ and ‘composite sample’ because they are not relevant to this permit.
- EPA has updated the URL to access NetDMR

Response to Comments from 2020 Public Notice

The following section includes comments from the March 18 – May 4, 2020 public notice of the permits. The comments are in the following categories: General Comments; CWA section 316(b) and CWIS; Permit Conditions – Monitoring, Effluent Limits, and Plans; 401 certification; Tribal Consultation; Environmental Justice; and ESA Consultation.

General Comments

Comment 1. Commenters support EPA's decision to regulate hydroelectric facilities under Clean Water Act Section 402, which should result in significant and important reductions in toxic and conventional pollutants. The NPDES permitting scheme is the primary means by which discharges of pollutants are controlled. Toxic pollution threatens the health of people who eat local fish and jeopardizes the public's right to eat fish caught locally. Rising water temperatures also threaten the health of salmon and other aquatic life that rely on cool water for survival (SRW and CRK, p.2-9).

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

Comment 2. Commenters call on EPA to proceed with issuing the eight Draft Permits in 2020 and hold public comment periods on the NPDES Permits for Grand Coulee and Chief Joseph dams (SRW and CRK, p. 10).

Response. EPA issued final NPDES permits for the four federal hydroelectric facilities on the Lower Snake River on September 30, 2021. EPA is issuing final NPDES permits for the four federal hydroelectric facilities on the Lower Columbia River. The NPDES permits for Grand Coulee Dam and Chief Joseph Dam are outside the scope of this action. EPA did not make changes to the permits in response to this comment.

Comment 3. Hydroelectric facilities are an important part of the clean energy transition. Hydroelectric power continues to be important to this mix as a carbon-free renewable energy source that releases very few pollutants, accounting for 6.6 percent of total U.S. utility-scale electricity generation and 38 percent of total utility-scale renewable electricity generation (EEI, p. 3-4.) At a time when our country is fighting to contain a coronavirus that is seriously threatening human health and the economy, policymakers must be particularly cautious about the imposition of potentially costly new regulatory requirements. To the extent regulations are warranted, conditions imposed must be carefully calibrated to address risk and result in demonstrable benefits. As you know, our region's carbon-free federal hydropower supply sourced from the CRS [Columbia River System], is the engine of the Pacific Northwest's economic prosperity and environmental sustainability. We ask EPA to partner with us to enhance the security it provides (PNGC, p.; NRP, p. 1).

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

Comment 4. The Corps recommends that EPA fix the hyperlink and extend review/comment period by 60 days to allow for review of any 'additional information' that EPA may have used in their evaluation (USACE, p. 17).

Response. The 2020 and 2021 Lower Columbia River Fact Sheets for the facilities provide the basis for the permit conditions. EPA does not believe an additional public comment period is necessary. EPA did not make changes to the permits in response to this comment.

Comment 5. What is the history of NPDES permits at dams on the Columbia River and why are these permits needed now (Yakama Nation, p. 6)?

Response. The 2020 Lower Columbia River Fact Sheet (p. 14) provides a brief history of the permits. EPA is issuing NPDES permits to these facilities because these facilities discharge pollutants from dam operations to waters of the United States. See CWA sections 301 and 402. As a result of a lawsuit, the Corps submitted NPDES permit applications in 2015. EPA did not make changes to the permits in response to this comment.

Comment 6. The EPA's letter only addressed the Facilities in the Zone 6 fishery and the Lower Snake River. However, Grand Coulee Dam has been mentioned in other correspondence. What is the status of the NPDES permit for Grand Coulee Dam (Yakama Nation, p. 6)?

Response. EPA has received NPDES permit applications for Grand Coulee Dam, Chief Joseph Dam, and Dworshak Dam. EPA is in the process of working on these permits which are outside the scope of the current permitting actions. EPA did not make changes to the permits in response to this comment.

Comment 7. The Facilities have been operated for more than fifty years and are basically large industrial sites. Therefore, it would seem that EPA must complete a full screening of the chemicals present in the discharge water prior to selecting the chemicals to be regulated under the NPDES permits (Yakama Nation, p. 7).

Response. The Corps submitted NPDES permit applications and provided the required effluent data on the NPDES application forms. EPA used the information from the NPDES permit applications and information about the operations to determine the pollutants of concern, consistent with guidelines from EPA's NPDES Permit Writer's Manual. These permits require monitoring which will inform the next permits. EPA did not make changes to the permits in response to this comment.

Comment 8. EPA should delay issuing this permit. The timing is poor, given that a temperature TMDL is being developed for the Snake and Columbia Rivers and a DEIS developed for Columbia River System Operations. The NPDES permit should be issued after the TMDL and DEIS are completed (Pickett, p. 1).

Response. The Columbia River Temperature TMDL and the DEIS for the Columbia River System Operations were completed prior to issuing these permits. EPA did not make changes to the permits in response to this comment.

Comment 9. We have concerns with two separate permits for Facilities on the Oregon/Washington border. What will be done to ensure discharges on both sides of the river are enforced consistently? How involved is WA and OR in this permitting process? (Yakama Nation, p. 7-9)

Response. EPA works regularly and closely with both the Oregon and Washington NPDES programs as partners and as part of EPA's oversight responsibilities of state NPDES programs. EPA will continue to work with Oregon to ensure consistency among the permits for the Bonneville Project, John Day Project, and McNary Lock and Dam. EPA did not make changes to the permits in response to this comment. See also response to Comment 75.

316(b) and CWIS

General Comments (316(b) and CWIS)

Comment 10. CWA § 316(b) does not apply to hydroelectric facilities and should be removed from these draft NPDES permits (BPA, p. 8; Cowlitz PUD, p. 1; EEI, p. 5; NHA, p. 3-7; NRP, p. 2-3, USACE, p. 5; UWAG, p. 8). Congress and EPA never considered applying CWA § 316(b) to hydroelectric facilities, which divert small quantities of water for cooling purposes (APPA, p. 2-4; PNGC, p. 5). EPA's proposal to apply CWA § 316(b) to hydroelectric facilities is neither compelled by nor consistent with the CWA. CWA § 316(b) does not apply to categories of point sources for which EPA has not established national standards under §§ 301 and 306 (UWAG, p. 7-20). EPA has never provided an opportunity to comment on the applicability of § 316(b) requirements to hydroelectric facilities. Hydroelectric facilities were not evaluated in prior § 316(b) rules (APPA, p. 4-5; UWAG, p. 13-14). EPA never collected the necessary information to apply § 316(b) to hydroelectric facilities. EPA has not considered whether the diversion structures at hydroelectric facilities should be treated as cooling water intake structures (UWAG, p. 14-21). EPA concludes that the Best Professional Judgment (BPJ) rule is a standard applicable to existing hydroelectric facility point sources. But, in EPA's proposal to promulgate the existing facility rules, including the BPJ rule, EPA explained that "hydro-electric plant withdrawals for electricity generation are not cooling water uses and are not addressed by today's proposal." Consistent with this understanding, EPA did not evaluate control technology feasibility for hydroelectric dams in the rulemaking process. The final existing facility rules accordingly found the potential impact of the rules on hydroelectric generation capacity to be "NA." Given the stated exclusion of hydroelectric facilities from the existing facility rules and absence of control technology analysis for this source category, the more reasonable interpretation is that the rules do not establish a "standard … applicable to" existing hydroelectric facilities (BOR, p. 1-2).

Response. As explained in the March 2020 Fact Sheet, in determining the best technology available (BTA) to minimize adverse impacts on the environment using best professional judgment (BPJ), EPA Region 10 analyzed the existing controls that the hydroelectric facilities are already implementing to minimize impingement and entrainment of aquatic life. EPA Region 10 concluded that these *existing* measures constitute BTA. Therefore, the permits require the hydroelectric facilities to implement measures pursuant to CWA section 316(b) that are *already being implemented* at the facilities. See Lower Columbia River Fact Sheet at p. 52-55.

CWA section 316(b) states that "[a]ny standard established pursuant to [CWA Sections 301 and 306] and applicable to a point source shall require that the location, design, construction, and capacity of [CWIS] reflect the best technology available for minimizing adverse environmental impact." 33 U.S.C. § 1326(b). Under the existing regulations, the permitting authority must implement CWA section 316(b) by

establishing BTA using BPJ for all existing facilities. 40 CFR § 125.90(b). The other substantive provisions of the 2014 existing facility rule, however, were not intended to apply to hydroelectric facilities.[1] See Lower Columbia River Fact Sheet at p. 52; see also EPA Memorandum from Andrew Sawyers, Director, OWM to Water Division Directors, Regions 1-10, re: Transmittal of the Revised Framework for Best Professional Judgment for Cooling Water Intake Structures at Hydroelectric Facilities, dated July 6, 2022 ("2022 CWIS memo").

The commentors state that the existing facility BPJ regulation (i.e., 40 CFR § 125.90(b)) cannot be applied to hydroelectric facilities because hydroelectric facilities were not specifically evaluated during the rulemaking process. The commentor concludes that, as a result, there are no "standards … applicable to" hydroelectric facilities and, thus, CWA section 316(b) does not apply.

While EPA agrees that the substantive provisions of the 2014 existing facility rule (40 CFR §§ 125.94-125.98) do not apply to cooling water intake structures at hydroelectric facilities with NPDES permits, EPA does not agree that the BPJ provision of the regulation does not apply. The requirement to apply the BTA standard on a BPJ basis applies to all cooling water intake structures at NPDES facilities that are not otherwise covered by the substantive provisions of the rule. This conclusion is plain on the face of the existing facility rule; 40 CFR § 125.90(b) states that "[e]xisting facilities that are not subject to requirements under this or another subpart... must meet requirements under section 316(b) of the CWA determined by the Director on a case-by-case, best professional judgment (BPJ) basis" and "existing facilities" generally include any "point source" that "is subject to regulation under the NPDES program" and "commenced construction as of . . . January 17, 2002." 40 CFR § 122.2 (definition of "facility") and 40 CFR § 125.92(k) (definition of "existing facility").

Moreover, this interpretation is supported by the legislative history surrounding the CWA section 316(b) regulations. In 1977, when the first substantive Clean Water Act section 316(b) rule was invalidated in *Appalachian Power Co. v. Train*, 566 F.2d 451, 457-58 (4th Cir. 1977), EPA removed the substantive provisions of the rule; however, the BPJ regulation for existing facilities remained in effect. EPA then promulgated a similar BPJ provision in the 2001 Phase I rule for new facilities to address facilities not subject to the substantive provisions of that rule. 40 CFR § 125.80(c). A similar BPJ regulatory provision for existing facilities was promulgated as part of the predecessor 2004 Phase II Rule, *see* 69 Fed. Reg. 41576, 41683 (July 9. 2004). The proposal for the current existing facility rule included language requiring BPJ permitting language that is similar to that adopted in the final rule. 76 Fed. Reg. 22174, 22280 (April 20, 2011). Thus, while EPA agrees that the substantive provisions of the 2014 CWA section 316(b) existing facilities rule do not apply to hydroelectric facilities, the legislative history surrounding the BPJ regulation shows that CWIS at existing hydroelectric facilities are subject to the BPJ regulation found at 40 CFR § 125.90(b).

Further, Courts have held that EPA has statutory authority under CWA section 316(b) over all facilities with CWIS that require NPDES permits. In *Appalachian Power Co. v. Train*, 566 F.2d 451, 457-58 (4th Cir. 1977), the court rejected the argument that the scope of CWA Section 316(b) was limited to steam electric plants stating "there is nothing to indicate [that] the statute was to apply exclusively to [steam electric plants. The statutory language is not so limited...." *See also*, *Cronin v. Browner*, 90 F.Supp.2d

[1] Commenters' discussion at pp. 5-6 points to many of the indications in the record for the 2014 rule that show that EPA never intended the substantive provisions of the rule at 40 C.F.R. § 125.95-99 to apply to hydroelectric facilities.

364, 383 (S.D.N.Y. 2000) ("section 316(b) encompasses all industries with facilities employing cooling water intake structures."); *Riverkeeper v. EPA,* 358 F.3d 174, 202 (2nd Cir. 2004) (upholding EPA "New Facilities" rule, court rejects petitioners' challenge to regulation on a BPJ basis for facilities below the threshold of the substantive provisions of the rule even where facilities were not otherwise subject to section 306 effluent guidelines (specifically, new source performance standards)); *see also, United States Steel v. Train*, 556 F.2d 822 (4th Cir. 1977). Nothing in CWA section 316(b) indicates that its use of the word "standard" is limited to nationally applicable effluent limitations guidelines and standards ("ELGs" or "NSPS"). *See CWIS v. US EPA*, 905 F.3d 49, 59 (2nd Cir. 2018) (court upheld the 2014 CWA Section 316(b) existing facility rule and discussed the use of the term "standard" in a broader general sense stating that "[a]n NPDES permit serves to transform generally applicable ... standards ... into the obligations ... of the individual discharger ...."). *Id.* Instead, as reflected in the legislative history of the various CWA section 316(b) rules, EPA has consistently interpreted the language of CWA section 316(b) to be triggered where a NPDES permit is required. This is because NPDES permits must include specific permit conditions that implement CWA sections 301 and 306 standards applicable to a point source. *See e.g.*, the New Facility Rule at 65 Fed. Reg. 49,060 (Aug. 10, 2000) ("This proposed rule would apply to new facilities that use cooling water intake structures to withdraw water from waters of the U.S. and that have or require a National Pollutant Discharge Elimination System (NPDES) permit issued under section 402 of the CWA."); 66 Fed. Reg. 65,258 (the final rule "applies to a new facility that has or is required to have a National Pollutant Discharge Elimination System (NPDES) permit.") (Dec. 18, 2001)[2]; see also 2022 CWIS memo.

Commentors state that 40 CFR § 125.90(b) does not apply to hydroelectric facilities because EPA did not provide notice that such facilities would be subject to the regulation. Commentors further state that hydroelectric facilities were not contemplated in previous versions of the regulation. As previously stated, EPA agrees that the record for the rule indicates that it did not intend for the substantive provisions of the 2014 rule to apply to hydroelectric facilities. However, EPA did not need to identify facilities subject to the BPJ permitting provision because that, of course, is the point of the BPJ provision: to apply the more general BTA standard to those facilities not otherwise subject to the specific substantive requirements of the CWA section 316(b) regulations. In addition, as previously discussed, that provision was a carry-over from long existing codified BPJ regulations applying the BTA standard to cooling water intake facilities of which hydroelectric facilities had ample notice. *See*, e.g., Phase II Rule, 67 Fed. Reg. 17122,17127-28 (April 9, 2002) (stating that "this proposed rule would apply to existing facilities" and, consistent with the

[2] EPA recognizes that EPA took a different position in *In re Central Hudson Gas and Electric Corp., EPA Decision of the General Counsel, NPDES Permits* (July 29, 1977). In that opinion, EPA stated that "the reference in [CWA] 316(b) to Sections 301 and 306 clearly indicates that the application of restrictions under 316(b) is predicated only upon the promulgation of *generally applicable national effluent limitations and guidelines*, or, under Section 301(b)(1)(C), limitations necessary to meet water quality standards." *Id.* (emphasis added). However, this is not the Agency's current position. For example, the preambles to 2014 regulation as well as earlier proposed and final regulations identify 14 industries that are not subject to a specific ELG or NSPS as potentially subject to 316(b) requirements indicating that ELGs and/or NSPS are not required to trigger CWA section 316(b). *See*., e.g., "What Entities Are Potentially Regulated by This Action?", 66 Fed. Reg. 65,256, 65,257 (December 18, 2001); *see also* 76 Fed. Reg. 22174, 22175 (April 20, 2011); 79 Fed. Reg. 48,300, 48,301 (August 15, 2014) (The NAICS codes listed in the preamble to the proposed and final existing facilities rule include a number of industries not subject to effluent limitations guidelines or new source performance standards).

definition cited above, describing such facilities broadly, in a way that would capture hydroelectric facilities).

Commenters further argue that EPA, in fact, took the position in the proposal to the 2014 rule that the rule would not apply to hydroelectric facilities, citing to the following from the preamble to the proposed rule. "…. [T]there are many other industrial uses of water not intended to be addressed by today's proposed rule. Emergency water withdrawals, such as fire control systems and nuclear safety systems, are not considered as part of a facility's design intake flow. Warming water at liquefied natural gas terminals, and hydro-electric plant withdrawals for electricity generation are not cooling water uses and are not addressed by today's proposal. 76 Fed. Reg. 22174, 22190 (April 20, 2011). This language merely means that flow through water at hydroelectric facilities used to turn electric turbines is not a *cooling* water use and thus it does not definitively exempt hydroelectric facilities from the statute. EPA does not view this passage as saying that EPA does not have statutory authority under CWA Section 316(b) to require controls established pursuant to BPJ. The statement in the quotation that the commentor included referring to "today's proposed rule" refers to the substantive provisions of the 2014 rule, not the longstanding BPJ requirement. Therefore, consistent with EPA's interpretations summarized above, EPA has established BPJ-based CWIS provisions in these permits.

As explained in the March 2020 Fact Sheets, in determining BTA to minimize adverse impacts on the environment using BPJ, EPA Region 10 analyzed the existing controls that the hydroelectric facilities are already implementing to minimize impingement and entrainment of aquatic life. EPA Region 10 concluded that these *existing* measures constitute BTA. Therefore, the permits require the hydroelectric facilities to implement measures pursuant to CWA Section 316(b) that are *already being implemented* at the facilities. See Lower Columbia River Fact Sheet at p. 52-55. EPA did not make changes to the permits as a result of these comments.

Comment 11. APPA and UWAG support EPA's determination that the 2014 Existing Facilities Rule does not apply to hydroelectric facilities (APPA, p. 2, 6; UWAG, p. 28-34).

Response. Section V.E. of the Fact Sheet for the Lower Columbia River hydroelectric facilities describes EPA's determination that the 2014 Existing Facilities Rule does not apply. See also 2022 CWIS memo. As explained in response to Comment 10, however, pursuant to 40 CFR § 125.90(b), CWIS at hydroelectric facilities are subject to BPJ. EPA did not make changes to the permits in response to this comment.

Comment 12. Other federal and state regulations comprehensively regulate hydroelectric facilities and their environmental impacts, including the Federal Energy Regulatory Commission (FERC), (APPA, p. 3; EEI, p. 12-13; HPA, p. 7-9; PNGC, p. 2-3; UWAG, p. 21-28). Interpreting CWA § 316(b) to apply to hydroelectric generation facilities would be a significant overreach and expansion of EPA's regulatory jurisdiction and would duplicate other federal and state requirements specifically designed to address these environmental impacts (Cowlitz PUD, p. 1-2). Other statutes and federal requirements are in place to address impingement and entrainment on CWIS (APPA, p. 7-8, HPA p. 7-9, PPC, p. 2-3). EPA does not have jurisdiction over compliance with the ESA, and the NPDES permit should not include ESA requirements that have been previously consulted on with the Services (USACE, p. 5). The Proposed Permits introduce a framework that could have implication beyond federal hydroelectric facilities including non-federal hydroelectric projects. Applying the Proposed Permit's BPJ framework conditions more broadly could be duplicative of other federal and state requirements already in place (APPA, p. 7).

Response. As explained in Section V.E. of the Fact Sheet for the Lower Columbia River hydroelectric facilities, EPA determined that CWA section 316(b) applies to these permits. Therefore, pursuant to 40 CFR § 125.90(b), EPA must establish BTA through BPJ. Although other statutes and regulations apply to hydroelectric facilities and CWIS, 40 CFR § 122.49 sets forth a list of Federal laws that may apply to NPDES permits. When the laws are applicable, EPA must follow the applicable procedures. One such law that is listed is the Endangered Species Act. To the extent the permits contain provisions related to the CWIS that overlaps with other ESA consultation requirements, EPA ensured that the requirements did not conflict with other obligations. EPA did not make changes to the permits in response to this comment.

Comment 13. EPA's proposed addition of reporting requirements for hydroelectric facilities related to CWIS is duplicative and likely unnecessary (EEI, p. 13). EPA should eliminate any separate reporting requirement for CWIS (HPA, p. 12).

Response. The permits require facilities to develop a CWIS Annual Report that ensures that BTA are maintained. The CWIS Annual Report is not duplicative of other permit requirements. EPA believes these reporting requirements are important to ensure that BTA are operating as designed to comply with Section 316(b) of the CWA. Annual reporting is not overly burdensome. EPA did not make changes to the permits in response to this comment. See also response to Comment 10 explaining that EPA must use BPJ to determine BTA for NPDES permits where there is a CWIS at the permitted facility.

Comment 14. EPA should reconsider its approach to permitting the Dams' cooling water intake structures. As an over-arching matter, the Fact Sheets and Permits appear to conflate gates that allow water into the Dams' turbines with the ports or other structures that actually draw water out of the river to cool the powerplants' internal machinery. The former are probably not cooling water intake structures within the meaning of CWA Section 316(b); nevertheless, most of the permits' requirements for cooling water intake structures appear to apply to the turbine intakes (if only to duplicate existing requirements derived from CRSO Biological Opinions). The actual ports or diversions that withdraw water from the river to cool mechanical processes within each dam are, contrary to EPA's "interpretation" of its Section 316(b) regulations, cooling water intake structures subject to the rule. The final NPDES permits should clarify the difference and apply the requirements of CWA Section 316(b) to the actual cooling water intakes to prevent the illegal entrainment and impingement of endangered salmonids and other fish (SRW and CRK, p. 19).

Response. See responses to Comment 10 and Comment 20. EPA did not make changes to the permits in response to this comment.

Comment 15. If EPA continues to assert that Section 316(b) applies to hydropower facilities, the Corps would like to note that these facilities already meet all four 316(b) factors, and therefore the NPDES permits and associated 401 Certifications should not contain 316(b) cooling water impingement and entrainment restrictions and conditions (USACE, p. 5).

Response. As explained in response to Comment 10, CWA section 316(b) applies to hydroelectric facilities; however, the CWA section 316(b) existing facilities rule does not apply to these facilities. To the extent that the Corps has comments or concerns regarding the CWA section 401 certifications, those should be directed to Ecology. In fact, the Corps appealed Ecology's CWA Section 401 certifications before Washington's Pollution Control Hearings Board (PCHB). One of the issues raised by the Corps concerned the CWA section 316(b) conditions that are contained in the certifications. The PCHB upheld

Ecology's CWA Section 401 certification conditions in November 2021. See also responses to Comment 16 to Comment 24 regarding the four-factor test.

Four-Factor Test (CWA section 316(b) and CWIS)

Comment 16. EPA staff have come up with a four-factor test and application of "Best Professional Judgment" to determine compliance with 316(b). While this four-factor test is an understandable attempt to create a middle-ground and alternate compliance path, as applied, it over-extends EPA's authority and results in inappropriate conditions being placed on the dams (PPC, p. 3). Commentors recommended several changes to the proposed BPJ framework, including clarification (PNGC, p. 5; UWAG, p. 34-36) regarding how certain aspects of the proposed four-factor analysis would be applied and recommends the elimination of facility-wide BPJ conditions that exceed EPA's § 316(b) authority (APPA, p. 2-3). Bonneville and PPC recommend that EPA clarify that the four factors above represent a progressive test, that if one of these factors is satisfied in the order specified, then the permit writer need not evaluate the other factors (BPA, p. 9, PPC, p. 3, UWAG, p. 36-37). BTA should be satisfied if any of the four factors are met (HPA, p.10, PPC, p. 3). Should EPA propose to add significant new requirements to hydroelectric facilities to address impingement and entrainment under Section 316(b), the Agency must do a national rulemaking. (EEI, p. 10-11, 13; PNGC, p. 6).

Response. As explained in the Fact Sheets, EPA used a four-factor test as a framework to applying BPJ to determine BTA. The elements of the framework used technical information from the 2014 Existing Facilities Rule (Factors 1 and 2) and configurations unique to hydroelectric facilities (Factors 3 and 4) as considerations in evaluating operations or technologies that could minimize entrainment and impingement of organisms. The Fact Sheet described how meeting at least one of the factors would be sufficient for BTA to address impingement and entrainment. See Lower Columbia River Fact Sheet at p. 53-55.

EPA determined that Factor 4, existing technologies at the facility, would best address impingement and entrainment due to ongoing efforts to maintain and improve fish survival from work related to threatened and endangered species in the Lower Columbia River as well as extensive past, ongoing, and future studies to evaluate the effectiveness of actions to improve fish passage and survival at these facilities.

The four-factor test in the Fact Sheet provides an appropriate and reasonable basis for determining BTA and the selection of BTA using Factor 4 will result in minimizing entrainment and impingement of organisms at these facilities. EPA's 2022 CWIS memo provides national guidance on the four-factor test for determining BTA at hydroelectric facilities. The 2022 CWIS memo does not mandate a permit writer to follow the four-factor test; it merely provides recommendations on how to determine BTA. Regardless of the four-factor test, the permits must establish BTA based on BPJ. Comments pertaining to the 2022 CWIS memo are outside the scope of this action.[3] EPA did not make changes to the permits in response to this comment.

Comment 17. EPA proposes to consider how efficient a facility produces electricity by comparing megawatts produced to the quantity of cooling water used. It is unclear how Factor 1 is evaluated (HPA, p. 10). Based on this factor alone, permit writers should be able to conclude that § 316(b) BTA requirements have been satisfied. EPA should clarify what kind of analysis or support permit writers

[3] It should be noted that EPA Region 10 did not rely upon the 2022 CWIS memo which was issued after the public comment period on these permits.

would need to use to rely on this factor. APPA recommends that EPA clarify that, if this factor is satisfied, the permit writer need not evaluate the other factors (APPA, p. 10; UWAG, p. 37).

Response. EPA's 2020 Fact Sheet explains that Factor 4 was used to determine BTA through BPJ for these permits. See Lower Columbia Fact Sheet at p. 54. This comment relates to a factor that was not used to develop permit conditions. Therefore, this comment is outside the scope of the permits. See 2022 CWIS memo for more information regarding Factor 1. EPA did not make changes to the permits in response to this comment.

Comment 18. The second factor proposes to consider [is sic]"proportional flow." APPA and HPA support EPA's use of the New Facility Rule's "proportional flow requirements" and agrees that the cooling water withdrawn at hydroelectric facilities will almost always be below 5% (in most cases, less than 1%) of the water passed through the dam for generating purposes. Another consideration may be the low volume of cooling water used as compared to the overall flow of the river (HPA, p. 11). However, EPA's use of proportional flow requirements does not only address entrainment, it also addresses impingement, another relevant issue. The underlying record that EPA has established for impingement through its § 316(b) rules assumes mobility. Once organisms are committed to moving through the facility, mobility would not matter. Therefore, EPA should clarify that the proportional flow factor may be used to address both impingement and entrainment (APPA, p. 10-11; UWAG, p. 38-39).

Response. See response to Comment 17. EPA did not make changes to the permits in response to this comment.

Comment 19. APPA and HPA agree that the location of the intake structure in the penstock or scroll case can demonstrate that the facility meets BTA for § 316(b). Hydroelectric facilities vary significantly in terms of design and configuration, especially when it comes to the pipes and structures that divert water for purposes of cooling (HPA, p. 11). UWAG agrees that the location of the intake structure (e.g., in the draft tube, penstock, or scroll case) can demonstrate that the facility meets BTA for § 316(b). As EPA notes, where the CWIS is within the dam, there is a lower density of organisms as compared to an intake in the waterbody, thereby minimizing impacts from the operation of the turbine. As the draft Fact Sheets note, this factor would not be applicable for hydroelectric facilities with intakes on the face of the dam or in the waterbody. Those facilities can meet BTA by demonstrating that they meet one or more of the other factors or that the location of the intake is situated such that the presence of fish susceptible to entrainment or impingement is low. For example, the intake may be located away from suitable spawning or nursery habitat, or the fish species likely present would not be susceptible to entrainment or impingement due to their size, swim speed, natural behaviors, etc. Clarification by EPA on addressing this factor for intakes not situated in the draft tube, penstock, or scroll case would be helpful (UWAG, p. 40). Permit writers should be able to conclude that § 316(b) BTA requirements have been satisfied based where the intake is located within the dam, on this factor alone (APPA, p. 11).

Response. See response to Comment 17. EPA did not make changes to the permits in response to this comment.

Comment 20. The fourth factor considers technologies at the facility. This factor should make clear that the technology being assessed – and regulated by EPA – is the CWIS. Reevaluation of other technologies at the facility such as fish passage structures or turbine velocities is not within the purview of EPA. EPA's § 316(b) authority is limited to the location, design, construction, and capacity of cooling water intake

structures (UWAG, p. 40-43). Another option for Factor 4 would be a determination that the configuration of the hydropower facility, including any measures employed as a result of consultation with the FWS or NMFS, could be deemed to satisfy the BTA requirement. But this determination should be made with the recognition that EPA has no jurisdiction over these components – it is simply a determination that the configuration is such that no additional requirements are needed at the CWIS (HPA, p. 11-12). EPA relied on Factor 4, the technologies at the facility, in its BPJ evaluation for BTA. Existing technologies at these facilities include measures to deter fish from intakes, encourage fish to travel through fish passage structures or over spillways, and decrease velocities through turbines to minimize impingement and entrainment of aquatic life at cooling water intakes. The technologies which EPA relies on in the application of Factor 4 are technologies or attributes for the whole facility, and not the intake, and therefore goes beyond the scope of EPA's § 316(b) authority. Incorporating guidelines around the use of technology and operations of the turbines goes beyond the scope of EPA's § 316(b) authority and could negatively impact the operations and adaptive management of the dams for their multiple authorized purposes (Cowlitz PUD, p. 2). While these technologies may help indicate that a facility already meets BTA (because any adverse impacts are minimized by virtue of those non-CWIS technologies), those technologies should not be incorporated as enforceable conditions of an NPDES permit. APPA urges EPA to limit the factors of its BPJ test to factors specific to the cooling water intake and to remove permit conditions that would impose operations or technology requirements for the whole facility (APPA, p. 11-12). It is unclear why EPA chose to use factor four for these draft NPDES permits to make their determination that technologies at the facility, in its best professional judgement (BPJ) evaluation for best technology available (BTA), satisfy 316(b) requirements when these facilities also meet factors one, two, and three (BPA, p. 9).

Response. As explained in the Fact Sheet and further clarified in the 2022 CWIS memo, permit writers using Factor 4 (technologies at the facility) in their BPJ evaluation of BTA may consider the design of the facility as well as operational practices which minimize impingement and entrainment of organisms. See Lower Columbia River Fact Sheet at p. 54. The 2022 CWIS memo further describes that existing controls and practices at hydroelectric facilities may be sufficient to satisfy the BTA requirements. EPA described in the Fact Sheet the use of Factor 4 in the BTA determinations for these permits with supporting information of existing technologies and actions at the facilities to meet fish survival targets. Factor 4 is appropriate for these facilities given the significant actions the facilities are taking to address fish survival and the number of threatened and endangered species in the Lower Columbia River. As explained in response to Comment 10, CWA section 316(b) and 40 CFR § 125.90(b) requires the permitting authority to establish BPJ conditions for BTA for NPDES permits issued to dams with CWIS. EPA did not make changes to the permits in response to this comment.

Comment 21. The specificity of the Proposed Permit conditions under Factor 4 could also limit adaptative management practices (PNGC, p. 3-4, PPC, p. 5; UWAG, p. 43-44). We encourage EPA to avoid conditions for NPDES permit approvals that would go beyond direct measurements of NPDES required outcomes. Conditional approvals may be unduly burdensome or may fail to envision technological advancements (NRP, p. 5). The Proposed Permit conditions extract specific requirements from Fish Operating Plans and Fish Passage Plans and make those enforceable NPDES conditions, but those plans change frequently as facilities learn what measures are successful and feasible. Moreover, the permit conditions do not provide enough flexibility for the facilities to adjust their operations as needed. For example, requirements to operate turbines at +/- 1% peak efficiency flows could be problematic depending on maintenance or necessary upgrades at a given facility. While technologies may help support

a BTA determination the technologies should not be incorporated into an enforceable 5-year NPDES permit (APPA, p. 12; BPA, p. 10-11). PPC believes that EPA's inclusion of technologies and practices beyond the CWIS, such as turbine efficiency and fish passage structures, to satisfy 316(b) requirements, is inappropriate. As such, Section II(E)(2)(a-e) should be removed from the final permits (PPC, p.2). The reference to the details of the annual Fish Passage Plan, including the Fish Operations Plan, should be removed from the permits, as they are overreaching and constraining to a system that is adaptively managed through the Biological Opinions. (BPA, p. 8, 13).

Response. Section 316(b) of the CWA requires the permitting authority to conduct a BTA determination using BPJ. See response to Comment 10. The permits contain conditions to implement BTA at the facilities; however, the permits also contain a condition that allows for adjustment to BTA if there are changes in the Fish Passage Plan. For instance, in the permit for the Bonneville Project, Section II.E.2(c) states for turbine efficiency that the permittee must "Operate turbines within +/- 1% peak efficiency, or as specified in the most recent Fish Passage Plan." Thus, the permits allow for flexibility to adaptively manage technologies to maximize fish survival while still meeting the requirements under CWA section 316(b). EPA did not make changes to the permits in response to this comment. See also response to Comment 25.

Comment 22. To the extent, the proposed four factor framework is a model for other states or EPA regions, the final permits should acknowledge the fish protection measures and operational requirements for the eight Corps facilities at issue here are specific to plans that were designed based on the attributes of the facilities, their locations on the Lower Columbia and Lower Snake Rivers, and the salmonid and other fish species in the area, among other things (UWAG, p. 44-45). APPA recommends EPA clarify in the final fact sheet that the facilities at issue have technologies and requirements that are specific to their location, waterbodies, and the relevant species in the area. EPA should acknowledge that many facilities in other parts of the country may not have such technologies or operations requirements. Where hydroelectric facilities do not have such conditions or attributes for the facility as a whole (e.g., operation of turbines at +/- 1% peak efficiency flows), EPA does not have authority under the CWA to require facilities to implement such facility-wide technologies or requirements (APPA, p. 12).

Response. A BPJ analysis for BTA is, by its nature, a facility-specific analysis. See also 2022 CWIS memo. EPA acknowledges that the BTA analyses conducted for these facilities were specific to the conditions, locations, waterbodies and aquatic life located in the specific waterbodies. To the extent that a BTA analysis needs to be conducted for other hydroelectric facilities, the analysis would be specific to those facilities as explained in the 2022 CWIS memo. EPA did not make changes to the permits in response to this comment.

Comment 23. APPA and UWAG are concerned that the open-ended nature of the BPJ framework could lead permit writers to seek development of new information or costly studies (e.g., impingement and entrainment studies) to inform the application of these four factors. The data and calculations to satisfy Factors 1- 3 should be relatively straightforward. APPA is concerned about what information applicants would be required to provide for Factor 4 (APPA, p. 13; UWAG, p. 45-46).

Response. These comments relate to the general framework of the four-factor test. The comments do not provide any specificity as to the application of the factors to the specific permits at issue. In addition, comments regarding the BPJ framework are outside the scope of this action. EPA did not make changes to the permits in response to this comment.

Comment 24. In the absence of such a source category control technology analysis, the Bureau of Reclamation urges EPA to add two factors to its BPJ framework for existing hydroelectric facilities. The first, threshold factor should consider the extent to which a hydroelectric facility cooling water intake structure causes adverse environmental impacts, the focus of section 316(b). Second, EPA should add a fifth, umbrella factor to allow consideration in the BPJ determination of facility specific conditions potentially excluded from the four factors EPA enumerates in the draft permits (BOR, p. 2).

Response. This comment relates to the general framework and does not concern the factor used to determine BTA for the current permits. See 2022 CWIS memo. Comments regarding the general framework are outside the scope of this action. EPA did not make changes to the permits in response to this comment.

Permit-Specific Conditions for CWIS (CWA section 316(b) and CWIS)

Comment 25. Bonneville suggests that **Section II.E. Cooling Water Intake Structure Requirements to Minimize Adverse Impacts from Impingement and Entrainment**, subsection (2), should read "EPA has determined that the ~~following~~ existing requirements as specified in the most recent Fish Passage Plan, including the Fish Operations Plan, are sufficient to satisfy the BTA requirement to minimize entrainment and to minimize impingement mortality" (BPA, p. 10; USACE, p. 5,6). PNGC requests that CWIS BTA requirements to prevent impingement and entrainment be aligned with ESA compliance as governed by the NOAA CRS biological opinion (PNGC, p.5). Please add a description of the Columbia River System, Regional Forum workgroups, e.g., weekly Technical Management Team meetings, to properly characterize the Corps' responsibilities during in-season operations (USACE, p. 5).

Response. As explained in the Fact Sheet for these permits, the CWIS BTA requirements are aligned with the NOAA CRS biological opinion. See Lower Columbia River Fact Sheet at pages 54-55. EPA has made the following change to Section II.E of the permits, except for McNary Lock and Dam: "including the most recent Fish Operations Plan and in-season Technical Management Team meetings."

Comment 26. Several corrections are needed to the hydropower operations fish survival tables, Table 18, in both the Lower Columbia and Lower Snake River Fact Sheets. Bonneville fish biologists reviewed Table 18 in both the Lower Snake River Fact Sheet (page 54) and Lower Columbia River Fact Sheet (page 55) provided by EPA on the draft NPDES permits. The tables show the correct juvenile survival range except for the following five facilities that Bonneville requests EPA correct:

Bonneville: the fish survival is reported to be 96-98% for 2011-2012. However, it should be corrected to 95-99% survival for 2006-2012 and 2018.

The Dalles: the fish survival is reported to be 94-99% survival for 2010-2012. However, it should be 95-99% survival for 2010-2012 [this is likely a rounding error]

John Day: the fish survival is reported to be 94-99% for 2011 & 2012. However, it should be 92-99% for 2010-2014.

It appears EPA limited their fish survival estimates to three groups: steelhead, yearling and sub- yearling Chinook. All recommended changes and corrections cover these three groups (BPA, p. 11-12; USACE p. 11-12, 17).

Response. EPA Region 10 does not revise fact sheets issued with draft permits after the public comment period. Instead, EPA Region 10 corrects information and provides any additional explanation in the response to comments document. EPA acknowledges the fish survival rates that the commentor has provided. EPA did not make changes to the permits in response to this comment.

Comment 27. Table 18 of the fact sheet mentions "Turbine routes: operate turbines at +/- 1% peak efficiency flows, operate turbines in priority order to maximize fish passage." Table 18 should also mention that the Corps has plans for 14 FFTs at McNary Dam over the next 20 years (USACE, p. 15-16).

Response. EPA acknowledges the Corps' plans for 14 FFTs at McNary Dam over the next 20 years. As previously stated, EPA Region 10 does not revise fact sheets issued with the draft permit after the public comment period. Instead, EPA Region 10 corrects information and provides any additional explanation in the response to comments document. EPA did not make changes to the permits in response to this comment.

Permit Conditions – Monitoring, Effluent Limits, and Plans

General Comments (Permit Conditions – Monitoring, Effluent Limits and Plans)

Comment 28. The draft NPDES monitoring, reporting and analysis requirements are burdensome, should be excluded from the final permits (PPC, p. 2-4), and should be reduced to apply only to a representative number of discharge points. We suggest that the sample frequency for the draft permits be adjusted to quarterly sampling instead of monthly, as monthly effluent monitoring may pose an unnecessary burden to the hydroelectric operator with little benefits yielded (Cowlitz PUD, p. 2). Weekly sampling requirements are redundant and not necessary given the low risk and high cost of weekly sampling. If any sampling is required, quarterly sampling would be adequate and preferred (USACE, p. 2). We also ask that EPA adhere to reasonable and practicable requirements for implementation (PNGC, p. 3-4). Specifically, we request that EPA not require additional costly monitoring conditions (NRP, p. 4). Bonneville requests that all outfalls under 1 million gallons/day (MGD) should be waived from sampling due to their de minimis impact. Bonneville requests that the timing and extent of the monitoring, analysis, and reporting requirements for pH, temperature, oil and grease, polycyclic biphenyls (PCB), total suspended solids (TSS) and biological oxygen demand (BOD) and chemical oxygen demand (COD) be re-evaluated for utility, practicability, and cost effectiveness. Bonneville requests that EPA coordinate directly with the Corps to identify representative monitoring and sampling locations and monitoring frequency that results in data utility, practicability and cost effectiveness. The monitoring, analysis and reporting costs associated with these draft NPDES permits are estimated to be up to approximately $3 million in the first year of implementation and $400,000 to $600,000 per year after, including up to six full time employees for the lower Columbia and Snake River projects for the duration of the permits if the monitoring requirements remain as is. Adding these estimated costs across the four lower Snake and four lower Columbia River facilities will create a significant financial impact to Bonneville and the region's ratepayers (BPA, p. 3-7).

Response. EPA recognizes that effluent monitoring at these facilities can be costly due to the large number of outfalls with numeric limits that require compliance monitoring and the need to monitor other pollutants such as PCBs to assess whether numeric effluent limits are needed in future permits. In addition, because these are the first permits issued for these facilities, the initial cost in both money and employees can be significant (e.g., installing the necessary monitoring equipment). EPA considered these factors when developing monitoring requirements in these permits, while also determining what is

necessary to ensure that sufficient data are collected to determine compliance and to characterize effluent for future permits. EPA coordinated with the Corps in developing the permit monitoring requirements.

These permits require monitoring for three purposes: 1) compliance with numeric effluent limits for pH, oil and grease, and heat; 2) better characterization of temperature and PCBs; and 3) characterization of BOD, COD, and TSS at a small number of outfalls.

All outfalls with numeric effluent limits require monitoring to determine compliance with limits. See 40 CFR § 122.41(j). The permits require weekly grab samples for the first year, and monthly grab samples thereafter if there are no exceedances or detections in the first year. EPA believes this is a reasonable approach to ensure compliance while also allowing for less frequent monitoring in the future if monitoring shows compliance with the limits in the first year.

Since available temperature data are limited to approximately one sample for each outfall at each facility, the permits also require temperature monitoring to assess compliance with the heat limits and to better characterize temperature at these outfalls. While EPA expects that the temperature impacts are likely small from these facilities, characterizing temperature at these facilities is important because effluent data are limited and more information is needed to confirm that temperature impacts are small. In addition, a large number of outfalls discharge cooling water at each facility (except for the outfalls that discharge to Washington waters at McNary Dam) and ESA-listed species are vulnerable to high temperatures. The permits require a minimum of monthly sampling of temperature at each outfall or continuous temperature monitoring. For outfalls that require continuous monitoring, the permits allow for representative sampling with similar outfalls (i.e., outfalls that discharge the same type of effluent) because the amount of heat released and the resulting effluent temperatures from these outfalls are expected to be similar. For instance, the Bonneville Project permit allows the facility to select two out of eight outfalls for cooling water discharges from main turbine units for continuous monitoring as opposed to reporting continuous monitoring at all eight outfalls. EPA believes the sampling frequency and type of temperature monitoring balances the need for accurate and representative data while providing flexibility on the number of outfalls requiring continuous temperature monitoring. This temperature monitoring is necessary given the site-specific conditions at these facilities and receiving waters.

The permits also require PCB monitoring at facilities to ensure that PCBs are not discharged at levels that will require a PCB numeric limit in the next permit cycle. The permits require a monitoring frequency (4 times in two years) that balances the ability to characterize possible PCB discharges from the facility while being cognizant of the costs and resources necessary to complete monitoring. This information will provide the permit writer sufficient data to evaluate whether PCB limits and/or monitoring are needed in the next permit. Similarly, a small number of outfalls require monthly TSS, BOD, and COD monitoring because of high concentrations in the permit application. Additional data are needed to better understand whether these are aberrant or whether they show a systemic issue that would require numeric limits in future permits. EPA believes these are reasonable requirements necessary to inform the next permit.

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

Comment 29. Annual reports identified in the Table of Contents and throughout the permit are identified with a due date of 31 December. To provide for adequate time to complete annual reports for Best Management Practices ("BMP"), Environmentally Acceptable Lubricant ("EAL"), Cooling Water Intake Structure ("CWIS"), PCBs, etc., all annual reports should be due on 28 February (USACE, p. 2, 16).

Response. EPA agrees to change the due date from December 31 to February 28 to allow time to compile the previous year's data. EPA has changed the Schedule of Submissions and corresponding sections due date from December 31 to February 28 for the BMP Annual Report (Section II.B.), EAL Annual Report (Section II.C.), PCB Annual Report (Section II.D.), CWIS Annual Report (Section II.E.), and the Temperature Data Report submittals (Section I.11.b).

Comment 30. Figure 7 (and other maps throughout) is of poor resolution and is unreadable. Please reproduce the maps and figures in the permit at a higher level of resolution to ensure readability. Consider other picture file types that scale better or covert more clearly to PDF (USACE, p. 17).

Response. As previously stated, EPA Region 10 does not revise fact sheets after the close of the public comment period. EPA does not believe that reproduction of Figure 7 or the maps throughout the fact sheet are necessary to provide comments on the conditions in the permits nor did the commentor provide a specific example or reason as to why the figure and maps was necessary to submit comments. EPA did not make changes to the permits in response to this comment.

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

Comment 31. The draft NPDES permits require a monthly measurement of discharge flow. Measuring the discharge of each outfall is not feasible. The Corps recommends changing the language to "calculate" flow. The flow will be calculated using the best available information, including design flows, and based on how long that outfall operated (USACE, p. 3).

Response. Given the configuration of particular outfalls and the intermittent nature of many of the discharges, EPA agrees that flow calculations can be an accurate way to report monthly discharge flows. EPA has changed the effluent limitations tables in all permits from "Measurement" to "Measurement/Calculation" for flow.

Oil and Grease (Permit Conditions – Monitoring, Effluent Limits and Plans)

Comment 32. Oil and grease: Oil and grease discharges are the most likely and potentially significant effluent discharges from the dams, and while there should be monitoring of these, the requirements of the draft NPDES permit are excessive. These dams are run-of-river, and their impacts from discharges are similar across their spans, so requiring monitoring and reporting for every outfall would cause undue burden and cost. The necessary information can be collected from a subgroup of each dam's outfalls (PPC, p. 4).

Response. See response to Comment 28 for a discussion of the factors EPA took into consideration in developing the monitoring provisions in the permits. *See also* 40 CFR § 122.41(j) (representative sampling must be included in the permits). EPA did not make changes to the permits in response to these comments.

Comment 33. For oil and grease, the 5 mg/L effluent limit is stringent given that the effluent limit in the draft general permit for hydroelectric generating facilities in Idaho was 10 mg/L. Bonneville recommends the effluent limit be increased to 10 mg/L to be consistent with the draft general NPDES permit in Idaho. Bonneville also requests that the oil and grease effluent limit criteria be clarified as an average of the day. This aligns with other regional practices, as seen in the draft general NPDES permit in Idaho, and will reduce the monitoring and reporting burden placed on the Corps. Bonneville recommends reducing the weekly or monthly grab sample monitoring for oil and grease to quarterly monitoring in these draft NPDES permits because monitoring to date by the Corps has not resulted in effluent limits exceeding the proposed 5 mg/L threshold assuming 5 mg/L is the average (referred to as maximum) daily discharge of samples taken. Bonneville requests that EPA coordinate directly with the Corps to identify representative monitoring and sampling locations and monitoring frequency (BPA, p. 7).

Response. The 2020 Lower Columbia River Fact Sheet (p.44-45) describes the basis for the oil and grease effluent limits. The oil and grease effluent limits are an interpretation of Washington's narrative standards for toxic concentrations and aesthetic values. Since the facilities discharge in Washington, EPA used an interpretation of the water quality standards from a permit developed by the Washington Department of Ecology (Ecology) where Ecology interpreted achievement of the narrative standard as a daily maximum concentration of 5 mg/L. It is appropriate for EPA-issued permits that discharge in Washington waters to use Ecology's interpretation of its own state water quality standards. In addition, representative sampling is not appropriate for outfalls where the purpose is to identify individual leaks that may be occurring at each outfall. Representative sampling for continuous temperature monitoring, in contrast, is appropriate since the purpose is to generally characterize temperatures in cooling water effluent. See response to Comment 28. EPA did not make changes to the permits in response to these comments.

Comment 34. Current hydrocarbon monitors (at least from 2012 timeframe, approximately) are only reliable down to 10ppm. Measuring at the level included will require laboratory analyses. The basis for this effluent level is anecdotal at best, being based on existing permits intended to establish (administrative) controls and the MDL (minimum detectable limit). The basis does not cite concentrations that produce a sheen, which is the specific requirement. The Corps requests that the limitation be increased to 15 mg/L (USACE, p. 13-14).

Response. The basis for the numeric oil and grease effluent limit is described in the 2020 Lower Columbia River Fact Sheet (p. 44-45). See response to Comment 33. EPA did not make changes to the permits in response to this comment.

Comment 35. Permits and 2020 Lower Columbia Fact Sheet: The Fact Sheet references several Washington State permits that establish a dry dock discharge level of 5 mg/l daily maximum for oil and grease to protect water quality. That daily maximum is described in WA0031411 as "Maximum daily effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day. For pollutants with limits expressed in units of mass, calculate the daily discharge as the total mass of the pollutant discharged over the day." The permit limits for oil and grease should be modified to include this language (USACE, p. 8, 11, 14).

Response. EPA agrees and has added the following language in the effluent limitation tables in Section I.B. of the permits for oil and grease: "Maximum daily effluent limit is the highest allowable daily

discharge. The daily discharge is calculated as the average measurement of a pollutant during a calendar day."

Comment 36. The Corps requests that language concerning oil spills be tied to permitted outfalls only. The requirement in the NPDES permits should be to only report sheens from outfalls that are permitted by that specific permit. Other spills are reported in compliance with CWA Section 311 (USACE, p. 9).

Response. Section I.A. of the permits states that "the permittee is authorized to discharge pollutants from the outfalls specified herein...This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams and operations that have been clearly identified in the permit application process." Thus, the permits make it clear that they are only authorizing discharges from the outfalls.

The NPDES permit applications requested coverage for discharges from outfalls and for the following oil to water interfaces: greased bushings, lubricated wire rope, and in-water equipment. Sheens related to any of the above fall under NPDES authorization and must be reported to comply with the permits. EPA did not make changes to the permits in response to this comment.

Comment 37. EPA must specify reporting frequency for visual observations. EPA fails to specify the required frequency for observing discharges subject to effluent limitations under Section I.B.4. Under 40 C.F.R. § 122.48, NPDES permits must specify monitoring methods, intervals, and frequency. *See also* 40 C.F.R. 122.44(i) (SRW and CRK, p. 17). No frequency of visual observation of outfalls is provided in the permit. The Corps recommends observations at the same frequency as grab samples of outfalls be included as a permit requirement (USACE, p. 2).

Response. EPA has made the following changes (see bold) in Section I.B.4 of the permits: "The permittee must observe the surface of the receiving water in the vicinity of where the effluent enters the surface water **at a minimum of once per week and report in monthly DMRs** The permittee must maintain a written log of the observation which includes the date, time, observer, and whether there is presence of a visible oil sheen, floating, suspended or submerged matter. **If the permittee observes a visible oil sheen at any time, they must record it in the log**. The log must be retained and made available to the EPA or Ecology."

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

Comment 38. pH: Bonneville and PPC requests reconsideration of including pH as a required monitored parameter in the draft NPDES permits (PPC, p. 4). Hydropower dams, including these facilities, generally do not have the means to modify the pH of a waterbody and are merely passing the influent water through their discharge. As an example, the NPDES Fact Sheet for the Lower Columbia dams notes that there were no pH values outside the desired range at the Bonneville Project, John Day Project, and McNary Lock and Dam (PPC, p. 4). In addition, according to the EPA Fact Sheets, section II(D) Impaired Waters / TMDLs section, which accompanied the draft NPDES permits, it appears there are no water quality-limited streams for pH listed on Oregon's and Washington's 303(d) lists. Thus, it is unclear why EPA would suggest monitoring this parameter. If EPA retains pH as a monitored parameter, then Bonneville recommends reducing the grab sample monitoring for pH to quarterly monitoring because these facilities do not have the means to modify the pH of a waterbody and are merely passing the influent water through the outfall. (BPA, p.5).

Response. The 2020 Lower Columbia River Fact Sheet (p.43) for these facilities explain that pH can be

an indicator for problems with operations and maintenance if large amounts of chemicals or other pollutants are released. Therefore, pH is a pollutant of concern, and the permits include numeric water quality-based effluent limits based on Oregon and Washington water quality standards. Monthly pH monitoring is a reasonable frequency to characterize the effluent in the first permit cycle. *See* 40 CFR § 122.41(j) (representative sampling is required to ensure compliance with effluent limits); see also response to Comment 31. EPA did not make changes to the permits in response to this comment.

Comment 39. Permits and 2020 Lower Columbia River Fact Sheet: The site specific criteria in Oregon is 7 to 8.5 standard units. No processes that modify pH are in place at the hydropower facilities, and there are only anecdotal reports that at times the specific portions of the Columbia River may exceed these limits. Recommend that language be added to the permit as follows: between 7-8.5, if this is exceeded, pH must be within .5 standard units of influent (USACE, p. 8, 14).

Response. See response to Comment 38. Washington's water quality standards at WAC 173-201A-200(g) do not allow for pH to be within 0.5 standard units if exceeded. EPA Region 10 does not revise fact sheets after the public comment period. Instead, the Response to Comments document provides any clarifications that need to be made to correct statements in the Fact Sheet. EPA did not make changes to the permits in response to this comment.

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

Comment 40. EPA should clarify that temperature and PCB requirements are specific to the facilities and environmental conditions at issue and should not be used as a model for other hydroelectric facilities' NPDES permits (USACE, p. 46-48).

Response. All NPDES permits must account for facility-specific operations and receiving waters when developing limits and conditions. Although EPA Region 10 does not amend its fact sheets, EPA acknowledges that the permit conditions for temperature and PCB are specific to these NPDES permits. EPA did not make changes to the permits in response to this comment.

Comment 41. The permits call for continuous temperature monitoring. This inclusion was made in light of forthcoming TMDL temperature limits and the impact of river temperature on protected salmonid populations. Temperature monitoring is already addressed in other processes and should not be included as a requirement under the NPDES permits. These facilities' cooling water discharges have minimal impacts to river temperature and additional monitoring of these discharges for temperature is not appropriate (PPC, p. 4; USACE, p. 13, 15). If potential temperature effects are minimal (see Table 10 in the Fact Sheet), there is no need for such robust temperature monitoring and reports. Given the conclusions reached by EPA, there is very little justification for requiring such robust (in-depth) water temperature monitoring and reporting. EPA acknowledges *de minimis* temperature influences from cooling water uses on overall river temperatures, yet requires a continuous representative sample point per outfall type. Please remove or edit this provision accordingly (USACE, p. 13, 15). If temperature monitoring remains a requirement in the permits, the Corps requests to perform six months of temperature monitoring to determine if ongoing temperature monitoring is justified or can be discontinued (USACE, p. 3).

Response. The permits include heat load effluent limits and require temperature monitoring to assess compliance with the heat limits throughout the permit cycle, except in the McNary Lock and Dam permit

which does not discharge heat from the two outfalls for the navigation locks and was not assigned WLAs in the 2021 Columbia River Temperature TMDL. Temperature monitoring will better characterize effluent temperature at outfalls, which is not currently conducted at the facilities. EPA did not make changes to the permits in response to this comment. See also response to Comment 31.

Comment 42. EPA must revise the permit to include temperature effluent limits for cooling water discharges. EPA must address the reasonable potential analysis for temperature. EPA must incorporate temperature effluent limits for discharges into impaired waters (SRW and CRK, p. 12-14).

Response. On May 20, 2020, EPA issued the Columbia River Temperature TMDL which assigned heat WLAs to the facilities related to their point source discharges. 40 CFR § 122.44(d)(1)(vii)(B) requires that NPDES permits include effluent limits consistent with the assumptions and requirements of a WLA in a TMDL. EPA proposed heat limits in January 2021 consistent with the Columbia River Temperature TMDL. EPA subsequently issued a revised Columbia River Temperature TMDL on August 13, 2021. The 2021 TMDL removed the WLA for McNary Lock and Dam (WA) because the facility does not discharge heat. EPA has included heat limits in the permits, except for McNary Lock and Dam, that are consistent with the revised WLAs in the final Columbia River Temperature TMDL. See Section I.B. in each permit. See response to Comment 92.

Comment 43. EPA should regulate heat pollution added to the Columbia and Snake rivers by the dams' impoundment of large, shallow reservoirs. Commenters urge EPA to evaluate and include effluent limits and permit conditions that address *all* of the heat pollution that the Dams add to the rivers (SRW and CRK, p. 15).

Response. Dams increase temperatures in the Columbia and Snake Rivers as both point sources and non-point sources. The Columbia River Temperature TMDL assigns WLAs to the point source portion of the dams (discharges from outfalls, such as cooling water and sump outfalls), except to McNary Lock and Dam, and load allocations (LAs) to the non-point source portion of the dams (reservoirs and impoundments). The permits include heat load limits consistent with WLAs to point sources in the Columbia River Temperature TMDL per 40 CFR § 122.44(d).

Ecology's CWA Section 401 certifications include conditions that require the permittees to comply with the LAs to the dam impoundments set forth in the Columbia River Temperature TMDL and to develop temperature plans that comply with the LAs. EPA has included these 401 certification conditions as well as other permit conditions that require the attainment of Oregon and Washington's water quality standards for temperature. See response to Comment 106.

Comment 44. How does having a Columbia River temperature TMDL not yet issued impact the draft NPDES permits? What is the EPA strategy for incorporating the temperature TMDL and adjusting if the TMDL is not issued by May 18, 2020? (Yakama Nation, p. 7) How can the draft NPDES permit and Section 401 certification processes take place when the TMDL has not been issued and it is not clear if EPA will meet the deadline of May 18, 2020? Once issued, the Columbia River temperature TMDL and associated implementation plans must become conditions of the NPDES permits. The EPA should delay final issuance of the NPDES permits until the Section 401 certification and TMDL process is completed and the Yakama Nation is given an opportunity to provide meaningful oversight (Yakama Nation, p. 5). The NPDES permit is not in compliance with Washington's Water Quality Standards (WAC-201A). The discharges of cooling water as described in the fact sheet are over criteria 20 degrees C in some cases (Ice

Harbor and Bonneville).

Response. EPA issued the Columbia River Temperature TMDL in May 2020 after the first public comment period for the permits, and at the same time, requested public comment on the TMDL. In January 2021, EPA went out for a limited second public comment period on the permits to propose heat limits consistent with the WLAs in the 2020 TMDL. In addition, EPA proposed an alternative option for the heat limits that would be consistent with proposed WLAs from the 2020 TMDL public comment period. EPA then reissued the Columbia River Temperature TMDL on August 13, 2021 with the alternate WLAs. EPA's permits include heat limits, except for McNary Lock and Dam, permit conditions from Ecology's 401 certifications, and permit conditions to address Oregon DEQ's objection under CWA Section 401(a)(2) that are consistent with the reissued 2021 Columbia River Temperature TMDL. *See* 40 CFR § 122.44(d)(1)(vii)(B); see also responses to Comment 42, Comment 43, and Comment 106. EPA did not make changes to the permits in response to this comment.

Comment 45. The NPDES permits must address temperatures at the Facilities and meet state water quality standards for temperature, including preventing unreasonable degradation of surface water quality upstream and downstream of each dam. The NPDES permits must include any conditions necessary to meet applicable state, tribal, and federal water quality standards. The NPDES permits should include suggested modifications to facilitate mitigating impacts including: modification of fish ladders, drawing down of selected reservoirs, increasing summer flows for temperature and migration, modifying flows for habitat, and ultimately transitioning away from dependency on hydropower and obstruction of the Columbia River. The Corps must submit a water quality attainment plan (WQAP) detailing potential strategies, including dam removal, to comply with temperature standards and migration and habitat needs. The WQAP and all other plans should be provided to Yakama Nation for review and input so that their Treaty Resources are protected (Yakama Nation, p. 9).

Response. The permits address temperature by including heat limits consistent with the Columbia River Temperature TMDL and requiring temperature monitoring to ensure compliance with the heat limits. In addition, EPA has included permit conditions related to meeting the LAs in the Columbia River Temperature TMDL as a result of conditions contained in Ecology's 401 certifications. EPA also included provisions related to meeting Oregon's temperature water quality standards as a result of the CWA section 401(a)(2) process. The permits do not require the Corps to submit plans to Yakama Nation for review and input. However, EPA is committed to the government-to-government relationship with Yakama Nation and ensuring the Tribe has opportunities to be involved in the development and review of plans, including the WQAP. See responses to Comment 42, Comment 43, and Comment 106. EPA did not make changes to the permits in response to this comment.

Comment 46. The Snake and Columbia Rivers at points of discharge are impaired for temperature, but they compare the discharge to the impaired waters of the River. This approach is incorrect. The permit assumes full mixing and does not provide a mixing zone. The cooling water should at least be meeting the criterion of 20 degrees daily maximum at the point of discharge, and not be increasing the temperatures by more than 0.3 at any time (Pickett, p. 1).

Response. The WLAs in the Columbia River Temperature TMDL ensure that all point sources are not heating temperatures by more than 0.3^{o}C. The permit heat limits are consistent with the WLA's in the TMDL. 40 CFR § 122.44(d)(1)(vii)(B); see also responses to Comment 42, Comment 43, and Comment 106. EPA did not make changes to the permits in response to this comment.

QAP, BMP, and PCB Plans (Permit Conditions – Monitoring, Effluent Limits and Plans)

Comment 47. The date that sampling must begin is not specifically identified in the permit. The requirement to conduct sampling should commence once the Quality Assurance Plan (QAP) is completed. Sampling prior to that may result in samples that will not meet quality assurance guidelines (USACE, p. 3).

Response. The effective date of the permit is July 1, 2023, which allows the permittee approximately 6 months from issuance date to prepare for sampling and QAP development. Though the permit does not require the QAP to be submitted until 180 days after the effective date of the permit, the permittee may choose to complete this prior to reporting sampling. This is a reasonable period of time from which to begin sampling. EPA did not make changes to the permit in response to this comment.

Comment 48. The Corps requests that plan development is within 12 months from receiving authorization to discharge from EPA (USACE, p. 16).

Response. See response to Comment 29. EPA did not make changes to the permits in response to this comment.

Comment 49. In the EPA "Guidance Manual for Developing Best Management Practices (BMPs)" it states that while Section 304(e) of the CWA restricts the application of BMPs to ancillary sources and certain chemicals, 40 C.F.R. § 122.44(k) authorizes the use of BMPs to abate the discharge of pollutants when: (1) they are developed in accordance with Section 304(e) of the CWA; (2) numeric limitations are infeasible; or (3) the practices are necessary to achieve limitations/standards or meet the intent of the CWA. Because the dams are not industrial manufacturers or treat any process waste, and the intent of the permit is to regulate the discharges associated with operation of equipment at a hydropower plant, the Corps of Engineers requests the removal of the BMP requirement because it is unnecessary. The project specific Spill Prevention Control and Countermeasure (SPCC) Plans more adequately address the concern for housekeeping, site run off, inspections, security, training, and loading/unloading, and projects have a site-specific Oil Accountability Program. In addition, the projects maintain a robust dangerous/hazardous waste program in compliance with Washington Department of Ecology and/or Oregon Department of Environmental Quality's RCRA regulations and are typically considered Small Quantity Generators. The requirements in Appendix B are redundant and overreaching for a facility that is an end user of a small amount of products (USACE, p. 4).

Response. To the extent that BMPs overlap with SPCC or RCRA requirements, the facilities can incorporate those BMPs into the BMP Plan. Appendix B in the permits includes the following language: "If the Oil Accountability Plan covers all elements of this permit requirement, the BMP Plan may reference the Oil Accountability Plan. Records are to be kept on-site and available for inspection by EPA or Ecology." EPA did not make changes to the permits in response to this comment.

Comment 50. The Corps does not believe any BMPs associated with Oil Accountability are warranted due to work practices that are already in place and EPA's failure to establish a connection between oil products and the permitted discharges/outfalls. For example, the Oil Accountability, Tracking, and Reporting requirements in Appendix B.3 is redundant with Section 311 SPCC Plans. This appears to be an attempt to regulate the facility as a whole under CWA Section 402. Any language that attempts to regulate the facility as a whole should be removed from the permit (USACE, p. 7).

Response. BMPs and the BMP Plan are warranted to ensure that the Corps implements practices that will ensure that the facilities will be able to meet oil and grease limits as well as other permit conditions. See responses to Comment 49, Comment 56, and Comment 57. EPA did not make changes to the permits in response to this comment.

Comment 51. The Corps does not believe any BMPs are warranted due to work practices that are already in place but the term "significant" in the inventory of exposed materials (App B 5) should be defined as quantities over 55 gallons (USACE, p. 7, 14).

Response. EPA has added the language to the BMP Plan in Appendix B to define “significant” as quantities over 55 gallons. See also response to Comment 50.

Comment 52. The Corps does not believe any BMPs are warranted due to work practices that are already in place and the existing data that was already submitted as part of the application process. Additionally, this data is already included in monthly discharge monitoring reports. The Corps requests removal of sampling data in the Best Management Plan because it is redundant and unnecessary (USACE, p. 7).

Response. EPA agrees that effluent data is already included in monthly discharge monitoring reports (DMRs) and has removed this requirement from the BMP Plan. However, pursuant to CWA section 401(d), EPA has included requirements in the permit that sampling data be reported in the BMP Annual Reports as a result of conditions in the 401 certifications. See also responses to Comment 50 and Comment 72.

Comment 53. The Corps does not believe any BMPs are warranted due to work practices that are already in place but if the section is not removed in its entirety, please remove requirement "9" from Appendix B, Best Management Practices and the requirement in Best Management Practices Plan (Section II.B). This provision is an ESA compliance issue that is consulted on between the Services and the Action Agencies. EPA does not have a role, and the NPDES permit should not include requirements that have been previously consulted on. This provision fails to identify a connection between the maintenance procedures and the permitted discharges/outfalls. This section is entirely duplicative with existing ESA consultation processes and products, and EPA should not attempt to enforce Biological Opinion requirements via CWA NPDES permits (USACE, p. 7-8).

Response. See responses to Comment 12 and Comment 50. EPA did not make changes to the permits in response to this comment.

Comment 54. Appendix B.10 - The Corps does not believe any BMPs are warranted due to work practices that are already in place, and requests removal of this provision. The BMP plan appears to be an attempt to regulate the facility as a whole under Section 402 and not just the permitted discharges -- i.e., no required nexus with the permitted discharge (USACE, p. 8).

Response. Appendix B.10 refers to backwash strainers in the Bonneville Project and The Dalles Lock and Dam permits, and flood/highwater discharges in other permits. It is unclear why the Corps believes that the BMP Plan is attempting to regulate the facility as a whole versus the permitted outfalls. As explained in response to Comment 57, the purpose of the BMP Plan is to ensure that the permittee implements practices at the facilities to ensure that the oil and grease numeric effluent limit is met. See also response

to Comment 50. EPA did not make changes to the permits in response to this comment.

Comment 55. Corps does not believe any BMPs are warranted due to work practices that are already in place, but BMP incidents (II.B.5) should fall into the category of "other non-compliance reporting" (III.H) and be reported with monitoring reports for Part III.B. This will limit the number of required report submittals, lowering the cost of compliance, without impacting discharge (USACE, p. 3-4).

Response. With respect to whether BMPs are warranted, see response to Comment 50. With regard to non-compliance reporting, EPA agrees and has changed Section II.B.5 of the permits with the following language (see bold):

- **Reporting of BMP incidents**. Prepare a written report to the EPA and Ecology after the incident has been successfully addressed, describing the circumstances leading to the incident, corrective actions taken, and recommended changes to operation and maintenance practices and procedures to prevent incident recurrence. **The report must be submitted according to Section III.H.**

Comment 56. EPA must review and approve BMP Plans and provide for public notice and comment on the plans. Commenters urge EPA to revise the Draft Permits to include new terms specifying EPA's review and approval role, as well as the opportunity for public notice and comment (SRW and CRK, p. 18).

Response. The permits require the permittee to develop BMPs including components described in Appendix B. The BMP plans are the means to achieve that requirement and do not constitute an effluent limit. Ecology's 401 certifications contain conditions that require EPA and Ecology to review and approve the BMP plans. Pursuant to CWA section 401(d) and 40 CFR § 124.55(a), EPA has included these conditions into the permits. Since CWA section 401(d) requires EPA to include conditions from a 401 certification, providing an additional public comment period on the incorporation of the conditions into the permit serves no purpose. *See Lake Carriers Assn. v. EPA*, 652 F.3d 1, 10 (DC Cir. 2011). Therefore, EPA is not providing public comment on permit conditions related to 401 certification conditions. See also response to Comment 72

EPA has modified Section II.B in the permits to add language from 401 certification conditions related to BMPs (see bold):

- The permittee must submit a **BMP Plan to EPA for review and approval** within 180 days of the effective date of the permit. The permittee may submit **the BMP Plan** as an electronic attachment to the DMR. The file name of the electronic attachment must be as follows: YYYY_MM_DD_WA0026778_BMP_05899, where YYYY_MM_DD is the date that the permittee submits the **BMP Plan**."

Under BMP Plan Modification in Section II.B. in each of the permits, EPA has added the following language: "**The permittee must submit the revised BMP plan to EPA for review and approval.**"

EPA also added the following language at Section II.B. in the permits from 401 certification conditions related to BMPs:

- The BMP Annual Report must report sampling data that is designed in a way to quantify source

identification and reductions in order to substantiate the adaptive management process. The sample and design and data analysis including methods and method reporting levels, must be included in the QAP (Section II.A) and updated as necessary.

- The BMP Annual Report must include the adaptive management procedures implemented based on the results of all monitoring used to evaluate BMPs.
- If EPA does not respond within 30 days after the BMP Plan or amended BMP Plan has been submitted for EPA approval, the plan is considered approved by EPA.

Comment 57. EPA must revise the permit to increase the frequency of BMP and EAL Plan compliance reporting. The Draft Permits require that the Corps submit BMP and EAL Plan Reports once per year. Annual reporting undercuts the agency's oversight of permit compliance and ability to prioritize inspections based on current BMP Plan compliance. EPA's reporting requirement also undercuts the public's ability to understand pollution discharges from the facilities and review permit compliance. Commenters urge EPA to revise the Draft Permits to increase BMP Plan Report frequency to at least four times per year (*i.e.*, quarterly reporting). In addition, EPA should revise the Draft Permits to require specific reporting measures to detect oil spills and leaks. Many of the discharges cannot be sampled, including those from the wicket gates and the turbine hubs via blade packing. However, the Corps can conduct internal mass balance reports to determine if, and how much, oil is lost from the system (SRW and CRK, p. 18).

Response. The permits establish numeric oil and grease effluent limits and require monthly monitoring to ensure compliance with the limit. Information regarding compliance with these limits will be available on EPA's Enforcement and Compliance History Online website: https://echo.epa.gov/. This provides the public real-time opportunities to ensure compliance with permit effluent limits.

The purpose of the BMP Plan is to identify actions and practices that the facility should implement to ensure that the numeric effluent limits are achieved. In addition, the BMP Plan conditions in the permits are designed to prevent oil spills and take actions to identify and improve on reducing oil spills. The BMP Plan requires the facility to develop an Oil Accountability Plan, track its oil uses, and report to EPA and Ecology if there is an oil release that is not accounted for (Appendices B of the permits). The purpose of the EAL Plan is for the facility to assess where lubricants are used and require EALs, unless infeasible. The permit conditions for EAL Plans require the Corps to shift all lubricants to biodegradable substances which will reduce the harmful impacts to aquatic species. Neither plan contains enforceable effluent limits.

Annual reporting does not undercut oversight of permit compliance because the facility needs to meet the oil and grease numeric limits as well as the requirement to use EALs unless technically infeasible. The plans set forth practices to meet those limits and subsequent annual reports allow facilities to optimize their BMPs and transition to EALs. Annual reporting is appropriate for these plans since the permittee must evaluate the effectiveness of plans and recommend improvements for the subsequent year's actions. Quarterly reporting is insufficient time to complete this evaluation. EPA did not make changes to the permits in response to this comment.

Comment 58. EPA's treatment of EALs in the Draft Permit marks a notable departure from EPA's treatment of EALs in the NPDES Vessel General Permit for Discharges Incidental to Normal Operation of a Vessel (VGP). Under the VGP, EPA requires that permittees use EALs where technologically

feasible to reduce pollution to waters of the U.S. The VGP includes a series of EAL-related requirements and categorizes those terms as "technology-based effluent limitations and related requirements."

EPA never explains why the Draft Permits fail to address EALs in a manner similar to the VGP. Like vessels regulated under the VGP, hydroelectric facilities interface with the aquatic environment and are known sources of oil pollution. Moreover, hydroelectric facilities in the Pacific Northwest—including the facilities regulated under the Draft Permits—and around the world are utilizing EALs to reduce toxic pollution in aquatic ecosystems. EPA must revise the Draft Permits to include robust terms, similar to the VGP, that require—unless technologically infeasible—the use of EALs at hydroelectric facilities as a technology-based effluent limitation.

EPA must revise the draft permit to include technology-based effluent limits that incorporate the use of Environmentally Acceptable Lubricants. EPA must revise the Draft Permits to: (1) explicitly require the use of environmentally acceptable lubricants (EALs) as a technology-based effluent, and (2) ensure EPA oversight of EAL selection and use at the hydroelectric facilities (SRW and CRK, p. 10).

Response. As explained in the Fact Sheet, the CWA requires that the effluent limits for a particular pollutant be the more stringent of either technology-based effluent limits or water quality-based effluent limits. Technology-based effluent limits are set according to the level of treatment that is achievable using available technology. EPA establishes technology-based effluent limits through effluent limitation guidelines (ELGs). In the absence of ELGs for a particular category of discharge, the permitting authority must use BPJ to determine technology-based effluent limits. *See* 33 U.S.C. § 1342(a)(1). Here, there are no ELGs for oil and grease at hydroelectric facilities. Further, any BPJ-based effluent limits would be less stringent than the numeric water quality-based effluent limit that has been established for oil and grease to meet the Washington's narrative water quality standard for deleterious materials and aesthetics. In addition, the VGP established BPJ-based technology based effluent limits that are appropriate for vessel discharges. Here, EPA has established an oil and grease numeric effluent limit along with BPJ-based EAL-specific conditions which constitute the appropriate technology-based effluent limit for this specific discharge.

As discussed in the 2020 Lower Columbia River Fact Sheet (p. 50-51) and Chapter 9 of EPA's NPDES Permit Writers' Manual (EPA, 2010), Special Conditions are appropriate in permits where additional monitoring and special studies are needed. Here, pursuant to Section 402(a)(1) of the CWA, EPA is using its BPJ to require the Corps to develop and implement the EAL Plan and Annual Reports. The commentors have not explained why these permit conditions do not constitute BPJ based technology based effluent limits. EPA did not make changes to the permits in response to this comment.

Comment 59. Commenters support EPA's decision to include an EAL Plan in the Draft Permits. However, EPA must revise the Draft Permits to ensure the agency is not authorizing an illegal self-regulatory scheme. EPA does not include any approval or disapproval mechanism for EAL Plans. First, EPA's decision to abandon its regulatory role vis-à-vis the EAL Plans runs afoul of the CWA. EPA must review and approve plans; if it neglects this duty, the agency creates an impermissible self- regulatory scheme. Special Condition II.C. fails to include any review and approval procedure by EPA. Second, EPA must afford the public an opportunity to review and comment on the draft EAL Plans. The EAL Plans constitute "effluent limitations," which the public has a statutory right to review and offer comment upon. Commenters urge EPA to revise the Draft Permits to include new terms specifying EPA's review and approval role, as well as the opportunity for public notice and comment (SRW and CRK, p. 11-12).

Response. The permits require the permittee to select EALs for all oil-to-water interfaces unless technically infeasible. The EAL Plan is the means to achieve that requirement and does not constitute an effluent limit.

The 401 certification conditions require that EPA and Ecology review and approve EAL plans. Pursuant to CWA Section 401(d) and 40 CFR 124.55(a), EPA has included these conditions into the permits. Since CWA Section 401(d) requires EPA to include conditions from a 401 certification, providing an additional public comment period on the incorporation of the conditions into the permit serves no purpose. *See Lake Carriers Assn. v. EPA*, 652 F.3d 1, 10 (DC Cir. 2011). Therefore, EPA is not providing public comment on permit conditions related to 401 certification conditions. EPA has modified Section II.C. in the permits to add language from 401 certifications related to EALs (see bold):

- The permittee must submit the first EAL Annual Report by February 28 **to EPA and Ecology for review and approval** following the first calendar year of permit coverage, and annually thereafter. **The EAL Annual Reports must be comprehensive, complete, accurate, and concur with the state's interpretation of technical feasibility.** Annual EAL reports must be signed in accordance with Part V.E.
- If EPA does not respond within 30 days after a plan has been submitted for EPA approval, the plan is considered approved by EPA. If Ecology does not respond within 30 days after the first EAL Annual Report has been submitted for Ecology approval, the plan is considered approved by Ecology.

Comment 60. The Yakama Nation is encouraged to see the permit does not allow for PCB discharges of any kind. However, the Columbia River itself already contains PCBs and therefore the Facilities will discharge water with PCBs in it. How does the EPA intend to reconcile this (Yakama Nation, p. 7)?

Response. NPDES permits do not regulate water that is passed through hydroelectric facilities. Instead, NPDES permits regulate pollutants that have been added by a facility's operations. *See National Wildlife Federation v. Consumers Power Company*, 862 F.2d 580 (6th Cir. 1988); *National Wildlife Federation v. Gorsuch*, 693 F.2d 156 (D.C. Cir. 1982). To ensure that the facility does not discharge PCBs, the permits require a PCB Management Plan and PCB Annual Reports. See also responses to Comment 28 and Comment 61. EPA did not make changes to the permits in response to this comment.

Comment 61. PCBs: Bonneville recommends that the requirement to develop a PCB Management Plan be removed from each of these draft NPDES permits because historic sampling has not identified PCBs in discharges from these facilities. PCBs are a contaminant already regulated under the Toxic Substances Control Act (TSCA). Including this requirement is an over-reach of the CWA, expensive and overly burdensome given the duplicative nature of this requirement under TSCA. Additionally, Bonneville requests EPA to clarify Section 1.B.6 of the permits which states, "The permittee is prohibited from discharging polychlorinated biphenyl (PCB) compounds such as those commonly used for transformer fluid." This statement does not provide a clear definition of what constitutes a discharge of PCBs. The statement could be interpreted to mean that PCBs must be discharged at concentrations below the freshwater toxicity criteria, or below the reporting or detection limit for a specific analytical method. Bonneville requests that EPA provide clarification for this statement (BPA, p. 7-8). The PCB monitoring, plan, and annual report should be removed from the permits. Prior sampling of permitted discharges have not identified any PCBs, and there is no reason to believe the permitted discharges/outfalls may include PCBs in the future. The PCB monitoring, plan, and annual report requirements are not justified,

unnecessary, and overly burdensome, especially given the permits specifically prohibit the discharge of PCBs (USACE, p. 4, 15).

Response. The 2020 Lower Columbia River Fact Sheet (p.51-52) describes the basis for PCB monitoring as well as the basis for the PCB discharge prohibition. Section 1.B.6 prohibits the discharge of PCBs, and the PCB Management Plan, which includes monitoring, planning, and actions, as a means to ensure compliance with the prohibition of PCBs. EPA considers PCB concentrations below the detection limit to be in compliance with the provision. In addition, the Lower Columbia River is impaired for PCBs, so data to confirm that PCBs are not being released by the facilities at unacceptable levels is necessary information to collect for future permits. The Fact Sheet explains the site-specific circumstances of the receiving waters and the facilities that require the PCB-related permit conditions.

EPA received 401 certification conditions related to PCBs from Ecology, which EPA must include as part of the NPDES permits pursuant to CWA Section 401(d). In order to address Ecology's conditions, EPA added the following language (see bold) to Section II.D of the permits:

- The permittee must submit the PMP to EPA and Ecology within one year from the effective date of the permit **for review and approval.**
- The PCB Annual Report must be submitted to **EPA for review and approval.** The permittee must submit the report as an electronic attachment to the DMR. The file name of the electronic attachment must be as follows: YYYY_MM_DD_WA0026778_PCB_Annual_Report_55099, where YYYY_MM_DD is the date that the permittee submits the report. The PCB Annual Report must be retained on site and made available to the EPA, Ecology and/or DEQ upon request.
- **If EPA does not respond within 30 days after a plan has been submitted for EPA approval, the plan is considered approved by EPA. If Ecology does not respond within 30 days after the PMP has been submitted for Ecology approval, the plan is considered approved by Ecology.**

Comment 62. The reference to PCBs in Section I.F. of the Fact Sheet should be removed, as Table 9 (p.22) does not list PCBs as an effluent component. Section I.E does state, "Some transformers may have legacy polychlorinated biphenyls (PCBs), which can be released with cooling water," but that appears to be speculation, which does not justify the PCB monitoring, Plan and Report requirement (USACE, p. 13).

Response. As explained in the 2020 Fact Sheet, EPA included the PCB Management Plan condition in the permits because the Lower Columbia River is listed as impaired for PCB, and there is a need for additional information concerning the facilities to ensure that they are not contributing to the impairment and are meeting the prohibition of PCB discharges in the permits. EPA Region 10 does not revise fact sheets after the public comment period; however, the response to comments document provides any further clarification needed as a result of public comments. EPA did not make changes to the permits in response to this comment.

Comment 63. The PCB Management Plan and reporting requirements are overly broad and unjustified, especially given that the permit specifically prohibits the discharge of PCBs. The permit Fact Sheets do not identify any historic sampling that found discharges of PCBs from the identified outfalls, and there is no indication that permitted discharges/outfalls may include PCBs in the future. 33 U.S.C. § 1314(e) [Section 304(e)] does authorize EPA to promulgate regulations to establish BMPs at the facility to prevent runoff, spillage, or leaks of toxic substances (e.g., PCBs) located at a facility, but there must be

some indication such toxic substances "may contribute significant amounts of such pollutants to navigable waters." In other words, there must be some reasonable likelihood the PCBs will become part of the permitted discharges.

Similarly, 40 C.F.R. § 122.44(k) allows the establishment of BMPs to "control or abate the discharge of pollutants." However, there should be some likelihood the PCBs will become part of the permitted discharges to justify the expense, resources, and effort needed to comply with such PCB requirements. Sampling and identification of PCB-containing equipment has historically been conducted at the facilities as required by the TSCA. The PCB requirements go well beyond the TSCA and are unnecessary given the lack of PCBs in any of the samples submitted to EPA during the application process. The PCB monitoring, plan, and annual reporting requirements are not justified, overly burdensome, and should be removed from the permits. The Corps also has a yearly requirement to report any PCBs disposed of or stored at the facilities. If EPA includes any PCB monitoring or reporting requirements in the permits, the requirement to include a list describing all sources of PCBs on the premises previously removed, replaced, remediated, or reclassified should be removed as unnecessary and overly burdensome, as these materials have already been removed and cannot result in a discharge relevant to the permit. The same is true for the requirement to describe actions that have been established prior to the issuance of this permit to prevent and/or track releases of PCBs from potential PCB sources. There is also no need to sample paint and caulking, especially since it is not a potential source of PCBs in relation to the facilities' outfalls (USACE, p. 4, 13).

Response. See response to Comment 61. EPA has changed the permit conditions to include a general description of sources of PCBs which have previously been removed, replaced, remediated or reclassified. As explained in the Fact Sheet, the Columbia River is listed as impaired for PCBs. The information that will be provided in the PCB Management Plan is important to better understand whether the facilities discharge PCBs for future permit issuances. EPA has changed Section II.D.1(a) from "A list describing all sources of PCBs" to "A general description of sources of PCBs." EPA also clarified the following language in Section II.D.:

- A description of actions that will be taken during the remainder of the permit cycle to prevent, **track, and address** releases of PCBs from potential PCB sources listed in part 1a, which must include BMPs that will decrease the likelihood of PCB releases.

- Progress to date in **implementing the PCB Plan, evaluating the effectiveness of BMPs in preventing** PCB releases.

- **How new actions will be taken to optimize effectiveness** during the remainder of the permit cycle.

Miscellaneous Comments (Permit Conditions – Monitoring, Effluent Limits and Plans)

Comment 64. The NPDES permits seem to only focus on concrete structures of the Facilities. General facility-wide stormwater discharges from hydroelectric generating operations appear to be largely unpermitted/unregulated at this point and these draft permits only cover specific sub-areas or operations (ex. oil-water separators). How will facility-wide stormwater be covered in these permits? Industrial activities and hazardous material usage, storage, and disposal have historically taken place at the Facilities. For example, there is contaminated stormwater that has impacted sediments at the Bradford

Island site which is part of the Bonneville Dam complex; however, these pollutant discharges have not been monitored, adequately controlled, or permitted. Furthermore, the contamination at Bradford Island was only discovered through cleanup activity. There is high probability for contaminated stormwater at the other Facilities. A much larger look at facility-wide stormwater pollutant discharges at the Facilities must be conducted and included in this effort (Yakama Nation, p. 7).

Response. The permits address the discharges for which the Corps applied for coverage. If the Corps determines there are regulated stormwater discharges at the facilities that require permit coverage, the Corps may apply for coverage under EPA's industrial stormwater general permit or the Corps may request that these additional discharges be added to the NPDES permit for the Bonneville Project. EPA did not make changes to the permits in response to this comment.

Comment 65. At a minimum, the draft NPDES permits must include conditions to cover oil spills (large and small), facility-wide storm water contamination, temperature, entrainment, and migration issues. Additionally, to be protective of water quality standards and Treaty-reserved resources, the following items need to be covered in the draft NPDES permits: Water behind dams; Water being spilled over dams; Water used only for hydroelectric generating purposes; and Water used only for navigation purposes (Yakama Nation, p. 8).

Response. Regarding oil spills, see responses to Comments 36 and 59. Regarding stormwater contamination, see response to Comment 64. Regarding temperature, see response to Comment 44. Regarding entrainment, see response to Comment 20. In response to the scope of what is covered in NPDES permits, see responses to Comment 60 and Comment 72. Note that Ecology's 401 certification requires a condition for the permittees to develop a WQAP to address temperature behind the dams and attain the total dissolved gases water quality criteria. Pursuant to CWA section 401(d), EPA has included these conditions in the permits. See responses to Comment 43 and Comment 106. EPA did not make changes to the permits in response to this comment.

Comment 66. Please strike IV.B.1 and IV.B.2. The United States is excluded from the definition of "person" under the CWA. 33 U.S.C. § 1362(5); *See also United States Dep't of Energy v. Ohio*, 503 U.S. 607 (1992) (USACE, p. 7).

Response. These sections are generally included in all NPDES permits pursuant to 40 CFR § 122.41 which sets forth provisions that are required to be in all NPDES permits. However, EPA acknowledges that the Clean Water Act does not authorize EPA to assess penalties against federal facilities. EPA resolves alleged CWA violations at federal facilities through Federal Facility Compliance Agreements. EPA did not make changes to the permits in response to this comment.

Comment 67. Foam, floating, suspended, or submerged matter near outfalls generally consists of material already in the river such as pollen, algae, and woody-material that is being passed through the facility (and therefore exempt from the permit). Please provide clarification that material that has passed through the facility is not subject to consideration in this permit nor is a violation of the permit. Clarify the term "trace" (USACE, p. 8).

Response. The permits prohibit the discharge of the materials above. Discharges do not include material that has been passed through the facility. The permittee has discretion to determine what constitutes foam that is above trace amounts. "Trace" is defined as "a minute and often barely detectable amount of

indication" (Merriam-Webster). EPA did not make changes to the permits in response to this comment.

Comment 68. Bonneville Lock and Dam permit and 2020 Lower Columbia River Fact Sheet: Since the original permit application, the Corps has made improvements to the Powerhouse oil-water separator ("OWS") resulting in the addition of an additional outfall. Please add this outfall to the permit as #16. It is otherwise identical to the existing OWS outfall #12 (USACE, p. 9, 10).

Response. EPA has added the oil-water separator outfall #16 to the Bonneville Project permit on the title page and Table 3.

Comment 69. The Dalles Lock and Dam and 2020 Lower Columbia River Fact Sheet: The permit information is out of date. The following outfalls no longer discharge from water-cooled transformers: 022, 023, 026, 027, 028, and 029. Additionally, by the end of 2020, outfalls 018, 019, 030, and 031 are scheduled to be discontinued (USACE, p. 9, 11).

Response. Since they are no longer discharging, EPA has removed outfalls 022, 023, 026, 027, 028, and 029 from the title page of The Dalles Lock and Dam permit as well as the effluent limitation tables. EPA confirmed with the Corps in 2021 that outfalls 018, 019, 030, and 031 are no longer discharging, so EPA has also removed these outfalls from the title page and effluent limitation tables.

Comment 70. Background information, 2020 Lower Columbia River Fact Sheet: The Fact Sheet information is out of date. For Bonneville Project, update the Facility Contact with the phone number 541-374-3850. If Facility Operator is added to Bonneville Project, please provide as COL Aaron Dorf, P.O. Box 2946, Portland, OR 97208. For The Dalles Lock and Dam, update the facility contact number to 541-506-8300, and Operator Name to COL Aaron Dorf. For the John Day Project, update the Facility Contact to Monica Carter, 541-739-1128, and Operator Name to COL Aaron Dorf. The Corps requests that the facility Contact be changed to Timothy Roberts (OPM) at McNary Lock and Dam, (541) 219-2251.

Response. EPA Region 10 does not revise fact sheets after the public comment period. Instead, the Response to Comments document sets forth any corrections that need to be made. EPA acknowledges the updated contact information for the facilities. EPA did not make changes to the permits in response to this comment.

Comment 71. 2020 Lower Columbia River Fact Sheet. Please correct the permit history date to August 14, 2014 (USACE, p. 11).

Response. EPA Region 10 does not revise fact sheets after the public comment period. Instead, the Response to Comments document sets forth any corrections that need to be made. EPA notes that the date in the Fact Sheet was in error and August 14, 2014 is the correct date for the Settlement Agreement between Columbia Riverkeeper and the Corps. EPA did not make any changes to the permits in response to this comment.

401 Certification

Comment 72. There are limitations to the conditions that may be imposed through EPA's draft NPDES permits. The NPDES permits should be limited to the material impacts of pollutant effluent discharges

that result from dam operations and could conflict with other agreements and obligations. (PPC, p. 2-5). Neither the NPDES permits nor the associated 401 certifications should infringe upon this longstanding adaptive management process. Any conditions imposed by the draft NPDES permits and Washington Department of Ecology's (Ecology) 401 certifications should not interfere with the Corps' ability to operate these facilities for the multiple purposes authorized by Congress (USACE, p. 2). *See National Wildlife Federation v. U.S. Army Corps of Engineers*, 384 F.3d 1163 (9th Cir. 2004). Further, the language of the Clean Water Act (CWA) explicitly recognizes that the provisions of the CWA cannot be construed to affect the Corps' ability to maintain navigation. *See* 33 USC 1371(a); *In re Operation of Missouri River System Litigation*, 418 F.3d 915 (8th Cir. 2005) (BPA, p. 3, 13, USACE, p. 2).

Response. As explained in the Fact Sheet, EPA imposed the conditions in the permits pursuant to the Clean Water Act and its implementing regulations at 40 CFR Part 122. CWA section 401(d) states that "[a]ny certification ... shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure [compliance] with any applicable effluent limitations and other limitations [set forth in one of the enumerated CWA sections] and with any other appropriate requirement of State law ... and shall become a condition [of the permit]." 33 U.S.C. § 1341(d); *see also* 40 CFR § 124.55(a) ("no final permit shall be issued … Unless the final permit incorporates the requirements [i.e., conditions] specified in the certification under § 124.53(e)."). In addition, 40 CFR § 124.53(e) requires that a state certification include conditions which are necessary to assure compliance with the applicable provisions of CWA sections 208(e), 301, 302, 306, and 307 and with appropriate requirements of State law. For any certification condition that is more stringent than the conditions in the NPDES permit, the State must include the CWA or State law reference(s) upon which the condition is based. 40 CFR § 124.53(e)(2). The federal permitting authority does not have discretion to alter or reject conditions included in a state 401 certification. *See City of Tacoma, Wash. v. FERC*, 460 F.3d 53, 67 (D.C. Cir. 2006); *Am. Rivers v. FERC*, 129 F.3d 99, 107 (2d Cir. 1997) ("FERC may not alter or reject conditions imposed by the states through 401 certificates."). Since CWA Section 401(d) requires EPA to include conditions from a 401 certification, providing an additional public comment period on the incorporation of the conditions into the permit serves no purpose. *See Lake Carriers Assn. v. EPA*, 652 F.3d 1, 10 (DC Cir. 2011). Instead, if an entity disagrees with a condition in a CWA Section 401 certification, that entity's recourse is to follow the state appeal process for the 401 certification. Here, Ecology's certification conditions include the required CWA or state law references; therefore, EPA must incorporate the conditions specified in Ecology's certification in order to issue these permits.

The commentors state that conditions imposed in the NPDES permits and in Ecology's 401 certifications should not interfere with the Corps' ability to operate the dams citing to *National Wildlife Federation v. U.S. Army Corps of Engineers*, 384 F.3d 1163 (9th Cir. 2004). The commentors, however, have not identified specific permit provisions that interfere with the Corps' ability to operate the dams and/or conflict with other agreements and obligations. To the extent that the commentors are referring to conditions that are set forth in Ecology's CWA section 401 certifications, the PCHB upheld the conditions in November 2021. EPA did not make changes to the permits in response to this comment.

Comment 73. NPDES certification should be limited to the scope of EPA's request envisioned under the NPDES intent—that is to say limited to potential pollutant discharges, such as the release of substances like oil used to lubricate equipment or effluent water used to cool equipment within the dam. We note, per two different federal court decisions that water that passes through turbines or over spillways (i.e., "non-effluent water") is excluded from NPDES permitting requirements (NRP, p. 3-4).

We further suggest it is unnecessary to do so, because the dams on the lower Snake and lower Columbia rivers have not caused harmful in-river temperatures (NRP, p. 5).

Response. It is unclear whether this comment concerns a particular condition in the CWA section 401 certifications issued by Ecology or whether it concerns conditions in the draft permits. To the extent this comment concerns a condition in the CWA section 401 certifications, the comment should have been raised during Ecology's public comment period on its intent to certify the NPDES permits. There is a State law process for issuance and appeal of Ecology's certification(s). To the extent this comment concerns a draft permit condition, none of the conditions in the draft permits deal with the water that passes over the dams via the spillways. See also response to Comment 72 regarding comments on NPDES certification under Section 401 of the Clean Water Act.

Comment 74. The Corps requests a second comment period on the draft permits if any changes are made as a result of the Washington Department of Ecology's issuance of the Section 401 Certifications (USACE, p. 12, 16).

Response. EPA will not be holding an additional public comment period on the 401 certification conditions that were included in the permit as a result of CWA Section 401(d). *See Lake Carriers Assn. v. EPA*, 652 F.3d 1, 10 (DC Cir. 2011). EPA has added all the 401 certification conditions to the permits in Section II.A-F and the Schedule of Submissions. See response to Comment 106.

Comment 75. The EPA must ensure coordination with and between Ecology's and ODEQ's Section 401 certification processes. The Yakama Nation's understanding is that ODEQ and Ecology will issue separate Section 401 certifications for the NPDES permits on the Facilities. In 2018, ODEQ delivered a precautionary objection to the original draft NPDES permit due to the timeline and separation of the process from Ecology. In 2020, the separation of process seems to be continuing. This is an inadequate and confusing approach that will result in disjointed and separate permit conditions, monitoring, mitigation measures, and reporting. (Yakama Nation, p. 4-5).

Response. EPA is not statutorily obligated to ensure coordination between Ecology's and Oregon DEQ's CWA section 401 processes. The processes that the commentor refers to are two separate processes under CWA section 401. First, CWA section 401(a)(1) requires the applicant to obtain certification from the jurisdiction where the discharge originates or will originate, unless the jurisdiction chooses to waive certification. Pursuant to this statutory requirement, EPA requested CWA section 401 certifications of the permits from Ecology because the discharges originate in Washington waters. Second, pursuant to CWA section 401(a)(2), EPA provided Oregon DEQ with notice that EPA determined that the discharges from the Lower Columbia River federal dams "may affect" Oregon water quality. This is a separate process from the CWA section 401(a)(1) certification process. After EPA sent the notice to Oregon DEQ, Oregon DEQ sent an objection letter on May 15, 2020 to EPA pursuant to CWA section 401(a)(2) where Oregon DEQ set forth its bases for objecting to the permits and requested a public hearing. On October 8, 2021, Oregon DEQ withdrew its objections on all parameters, except for temperature. On June 7, 2022, EPA held a public hearing on Oregon DEQ's objection. On September 15, 2022, EPA held a third public comment period to propose additional permit conditions to address Oregon DEQ's objection. The permits now include the conditions set forth in Ecology's 401 certifications as well as additional conditions that EPA has determined are necessary to ensure compliance with Oregon's water quality requirements for temperature. See response to Comment 106.

Comment 76. The EPA must comply with any Section 401 certification conditions to ensure that NPDES permits are consistent with state water quality standards. With respect to the Facilities, the states may invoke Section 401 authority to condition the NPDES permits to ensure protection of water quality and designated beneficial uses. This includes meeting water quality standards for temperature in the reservoirs, spill over the dams, total dissolved gas, and salmon migration. If Ecology issues Section 401 certifications here, the EPA must incorporate any conditions into the NPDES permits, including temperature standards and other criteria necessary to protect salmon, pacific lamprey, sturgeon, Southern Resident areas, and other species from the combined impacts of dam operations and climate change (Yakama Nation, 4-5).

Response. See response to Comment 72.

Tribal Consultation

Comment 77. The Fact Sheet does not indicate the schedule associated with EPA's tribal consultation or what the implications are to the permit or permit conditions. EPA should provide rationale for not including other basin tribes. EPA should coordinate any conditions resulting from such consultation (if any) with the Corps before adding them to the draft permits (USACE, p. 12).

Response. EPA engaged with Columbia River Basin tribes who expressed interest in the NPDES permits as part of EPA's government-to-government relationship with tribes for any federal actions that may impact a Tribe's interest. This follows EPA's 2011 Policy on Consultation and Coordination with Indian Tribes. Any changes to permits that are significant and discretionary require public notice. No significant changes to permits occurred through tribal consultation on these permits. EPA did not make changes to the permits in response to this comment.

Comment 78. The EPA must conduct a meaningful consultation with the Yakama Nation, including a staff-level technical meeting, prior to making a determination on the NPDES permits for the Facilities (Yakama Nation, p.4).

Response. Meaningful consultation is part of EPA's government-to-government commitment to meeting treaty obligations. EPA has met with staff and management from Yakama Nation during the development of the permits, including most recently, meetings and other communications from June through August 2021. EPA and Yakama Nation have agreed to continue discussions after the permits are issued. EPA did not make changes to the permits in response to this comment.

Comment 79. Each draft NPDES permit covers numerous outfalls at each of the Facilities. The following overarching issues and concerns apply to all eight of the draft NPDES permits and associated actions:

-No opportunity for the Yakama Nation to review and comment on the multiple best management and monitoring plans that will be attached to permits.

-No opportunity for the Yakama Nation to review mitigation plans, particularly related to mitigation measures for temperature.

-No opportunity for the Yakama Nation to review and comment on the multiple implementation plans that

will be attached to permits.

-No opportunity for the Yakama Nation to review and comment on the EPA's evaluation of Section 401 Water Quality Certifications.

-No opportunity for the Yakama Nation to review and comment on Columbia River temperature TMDL.

-No opportunity for the Yakama Nation to review and comment on ESA Section 7 documents.

-No opportunity for the Yakama Nation to engage in meaningful government-to- government consultation.

(Yakama Nation, p. 7-8)

Response. See response to Comment 78.

Environmental Justice

Comment 80. The environmental justice section of the fact sheet does not identify the "Census block group" or why/how the discharges would affect the group? The Corps recommends that the entire Environmental Justice section be deleted (USACE, p. 16).

Response. Executive Order 12898 discusses addressing environmental justice in federal actions. EPA's Region 10 environmental justice program seeks to integrate principles of environmental justice in the Agency's core work, including for the NPDES permits program. EPA uses a set of indices (EJ Screen) to determine whether the surrounding community constitutes an environmental justice community. These indices include a variety of factors related to race, income, education, and age, among other factors. As previously stated, EPA does not revise fact sheets after the public comment period. EPA did not make changes to the permits in response to this comment.

ESA consultation

Comment 81. Please define what "working with" the Services on ESA consultation means. The Corps requests a second comment period on the draft NPDES permits if any changes are made as a result of EPA's ESA consultation with the Services (USACE, p. 16)

Response. EPA is required to go through ESA consultation when EPA determines that EPA-issued NPDES permits are not likely to adversely affect or are likely to adversely affect threatened and endangered species. On June 24, 2021, EPA received concurrence from the United States Fish and Wildlife Services (USFWS) on EPA's determination that the permits were not likely to adversely affect threatened and endangered species under USFWS jurisdiction. On September 10, 2021, EPA received a Biological Opinion from the National Marine Fisheries Service (NMFS) that includes a reasonable and prudent measure (RPM) for EPA to send NMFS any reports or plans related to BMPs. The RPM does not require any changes to the permit conditions. Therefore, another public comment period is not necessary.

Comment 82. The EPA must perform a comprehensive evaluation of impacts to Native Nations and Treaty-reserved resources prior to making a determination on the NPDES permits for the Facilities (Yakama Nation, p. 4).

Response. EPA's Biological Evaluation assessed impacts to threatened and endangered species as part of the NPDES permitting actions, impacts to critical habitat, and essential fish habitat. EPA provided this information to Yakama Nation prior to issuing these permits. EPA will continue to work with Tribes during the implementation of the permits. EPA did not make changes to the permits in response to this comment.

Comment 83. How does having ESA consultation not yet completed impact the draft NPDES permits? EPA should make a concerted effort to include the Yakama Nation in a transparent and coordinated effort so that we can provide input and expertise on ESA Section 7 documents and consultation with the Services. The EPA should delay final issuance of the NPDES permits until the ESA consultation process is completed and the Yakama Nation is given an opportunity to provide meaningful oversight (Yakama Nation, p. 6).

Response. EPA completed ESA consultation prior to issuing the permits. EPA is committed to working with Yakama Nation as the permits are being implemented. See responses to Comment 78 and Comment 82. EPA did not make changes to the permits in response to this comment.

Response to Comments from 2021 Public Notice

The following section includes comments from the January 15 – February 16, 2021 public notice of heat limits in permits. The comments are in the following categories: Temperature (2021 Public Comment); 401 Certification (2021 Public Comment); and Comments Outside Scope of 2021 Public Comment.

Temperature (2021 Public Comment)

Comment 84. The proposed revised heat load effluent limits from the U.S. Army Corps of Engineers should be incorporated into the final NPDES permits (NWRP 2021, p. 3; PPC 2021, p. 2). Bonneville appreciates EPA's coordination and collaboration on the development of the revised proposed Waste Load Allocations (WLAs) identified in each draft NPDES permit. The U.S. Army Corps of Engineers (Corps) proposed these revised facility-wide heat loads, which reflect the design flows and maximum temperatures, as WLAs to be applied in a revised Total Maximum Daily Load (TMDL) and subsequently in the final NPDES permits. Bonneville requests the WLAs in Table 2 of the 2021 "Fact Sheet for Proposal of Heat Load Effluent Limits in Lower Snake River Hydroelectric Generating Facilities" and the "Fact Sheet for Proposal of Heat Load Effluent Limits in Lower Columbia River Hydroelectric Generating Facilities" be incorporated into the final NPDES permits (BPA 2021, p. 2).

Response. The permits include heat limits consistent with WLAs from the revised 2021 Columbia River Temperature TMDL. *See* 40 CFR § 122.44(d)(1)(vii)(B). EPA did not make changes to the permits in response to this comment.

Comment 85. Non-cooling water outfalls in the permits are included in waste load allocations. The Corps agrees with EPA's decision not to include these outfalls in the facility average monthly heat load. The permits' I.B. Tables and I.B.12 paragraphs (except McNary, which is I.B.9) incorrectly address the exclusion of these outfalls from the facility average monthly heat load. Please see the Corps' comments to the Fact Sheets below (Comments 8 and 10), which request incorporation of the Corps' proposed revised heat load effluent limits into the permits. If EPA would like to discuss how the calculation should be modified, the Corps' is willing to do so (USACE, p. 2-3).

Response. See response to Comment 84. EPA did not make changes to the permits in response to this comment.

Comment 86. 2021 Lower Columbia River and Snake River Fact sheets: The proposed revised heat load effluent limits from the Corps should be incorporated into the final NPDES permits. The Corps requests the Waste Load Allocations (WLAs) in Table 2 as presented in the 2021 "Fact Sheet for Proposal of Heat Load Effluent Limits in Lower Columbia River Hydroelectric Generating Facilities" be incorporated into the final NPDES permits. If EPA wants to address I.B.12 heat load effluent limit consistency for all outfalls and how the calculation should be modified, the Corps is willing to do so. The Corps appreciates EPA's coordination and collaboration on the development of the revised proposed WLAs identified in each draft NPDES permit. The Corps proposed these revised facility-wide heat loads, which reflect the design flows and maximum temperatures, as WLAs to be applied in a revised TMDL and subsequently in the final NPDES permits (USACE 2021, p. 4-6).

Response. See response to Comment 84. EPA did not make changes to the permits in response to this comment.

Comment 87. EPA has requested comments on the proposed heat load effluent limits based on both the May 2020 TMDL WLAs and U.S. Army Corps of Engineers (Corps) WLAs alternatives. Information provided by EPA indicates that the Corps WLAs are higher than the May 2020 WLAs for all dams except The Dalles. These differences are attributed to the Corps using adjusted August temperatures and estimates of the influence of facility operations. The temperature, outfall design flow data, and the estimation method that the Corps used in their calculations was not made available to reviewers. While current data may be limited, WLAs calculations should be made on information that is transparent to EPA, state regulators and co-managers. The permitted WLAs should be reexamined and revised if necessary when permit monitoring requirements are met (CRITFC 2021, p. 2).

Response. See response to Comment 84. EPA did not make changes to the permits in response to this comment.

Comment 88. EPA's proposed NPDES permits require that the "permittee must comply with the effluent limits in the tables at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions". For thermal releases, a facility-wide monthly average sets this limit. Yet the permit also requires continuous temperature monitoring of select outfalls after the first six months of the effective date of the permit. It is not clear why meeting thermal heat load only at an averaged monthly level is used to set the permit's heat load effluent limit. Averaged monthly targets are not precise enough to understand when heat load effluents compromise the intended goal of limiting thermal releases. Management of acute thermal impacts to river resources is as important as the avoidance of chronic impacts. We recommend that the permitted facilities achieve daily compliance with heat load effluent limits as is required for other pollutant releases (CRITFC 2021, p. 2; CTUIR 2021, p. 3). The draft NPDES Permits provide for monthly compliance calculations with respect to the wasteload allocations. While this timeframe may be standard in other contexts, it is not sufficiently protective for fish. The EPA should revise the draft NPDES Permits to require daily compliance calculations. Ideally, the Corps or EPA would then share the data collected with the Yakama Nation and stakeholders (Yakama Nation 2021, p. 3).

Response. The heat limits are set as average monthly limits consistent with guidelines from the 2021 Columbia River Temperature TMDL on how permit writers should translate the WLAs. These WLAs and the TMDL are set at levels to protect aquatic life uses. The TMDL states that "The assumptions of the modeling assessment can be considered in determining how to translate the TMDL wasteload allocations into permit limits. In the model, a point source is input as a continuous heat load, and this is analogous to a source discharging continuously at its monthly average permit limit. Collectively, if all the sources discharge this load on average, the goal of the TMDL for point sources will be achieved." Therefore, the permits, except for McNary Lock and Dam, include heat limits as average monthly loads to ensure that the limits are consistent with the assumptions and requirements of a TMDL. *See* 40 CFR § 122.44(d)(1)(vii)(B). The permit requires representative continuous monitoring and an annual temperature report that summarizes the temperature monitoring. This will help to better characterize effluent temperatures for the next permit cycle. EPA did not make changes to the permits in response to this comment.

Comment 89. The Discharge Monitoring Reports (DMR) and Temperature Data Report which are required to include the monthly instantaneous maximum, the maximum daily average, and 7-day average daily maximum (7-DADM) temperatures measured in each outfall along with daily flow data should be

made available to all regional co-managers (CRITFC 2021, p. 2).

Response. The DMRs are temperature data reports that can be obtained by contacting Ecology and EPA. EPA did not make changes to the permits in response to this comment.

Comment 90. Appendix B in EPA's TMDL provides an important compilation of data on temperature conditions throughout the river system for 2011-2016 and provides a useful comparison to existing standards. It is apparent from Appendix B's full-year graphics, that temperature criteria exceedances begin as early as June at multiple locations. We recommend that the NPDES heat load limits be extended from a July to October frame to June to October. Including June heat load data would allow regional co-managers to better determine the earliest onset of temperature exceedances such as those observed in high temperature/low flow years like 2015 (CRITFC 2021, p. 2; CTUIR 2021, p. 3). EPA should revise the draft NPDES Permits to require the Corps to begin monitoring in June rather than July (Yakama Nation, p. 3-4).

Response. EPA has changed the effluent limits tables in the permits to clarify that heat limits apply from June 1 to October 31 consistent with the timeframe in the 2021 Columbia River Temperature TMDL.

Comment 91. The Fact Sheet for the draft NPDES Permits ("Fact Sheet") notes that the maximum temperatures used in the TMDL did not consider temperature measurements from August, which is the warmest month of the year. This is a significant oversight. The Fact Sheet proceeds to explain the Corps estimated August temperatures, which informed the agency's newly proposed wasteload allocations. The Yakama Nation requests further information on the estimations performed by the Corps to develop its proposed wasteload allocations beyond the short narrative provided in the Fact Sheet (Yakama Nation 2021, p. 3).

Response. EPA has provided more information on the revised WLAs from the Corps to Yakama Nation. EPA did not make changes to the permits in response to this comment.

Comment 92. The Fact Sheet indicates that McNary Lock and Dam no longer has a heat load effluent limit. However, the draft NPDES Permit associated with McNary Lock and Dam retains the previous heat load. The EPA has not provided an explanation for this discrepancy (Yakama Nation 2021, p. 3).

Response. The permits, including McNary Lock and Dam, are based on the 2021 Columbia River Temperature TMDL. The response to comments document associated with the TMDL indicates that McNary Lock and Dam was incorrectly assigned a WLA because it does not contribute to heat discharges. Therefore, a heat limit is not necessary for McNary Lock and Dam. The draft NPDES permits in the 2021 public notice included limits based on WLAs from the May 2020 TMDL, which incorrectly included a heat WLA for McNary Lock and Dam. EPA did not make changes to the permits in response to this comment.

401 Certification (2021 Public Comment)

Comment 93. These proposed changes to the draft NPDES permits trigger new Clean Water Act (CWA) Section 401 Certifications (401 Certifications) (PPC 2021, p. 2). EPA must request new certifications from the Washington Department of Ecology (WDOE) prior to issuing the final NPDES permits. (BPA 2021, p. 2-3; USACE 2021, p. 4-6; NWRP 2021, p. 3)).

Response. EPA received final 401 certifications from Ecology on May 7, 2020. EPA did not request a second 401 certification, because Ecology's final 401 certification included a condition stating that "EPA must include a re-opener clause, if necessary, in the final permit to incorporate TMDL wasteload allocations (RCW 90.48.080)." The Columbia River Temperature TMDL was issued in May 2020. The heat limits in the January 2021 public notice of permits addressed the condition in Ecology's certification. Therefore, since EPA incorporated the TMDL WLAs, EPA addressed Ecology's certification condition and, as a result, EPA did not need to request a new 401 certification from Ecology. In addition, in a January 25, 2021 email, Ecology stated that EPA did not need to request a new certification for the addition of heat limits. EPA did not make changes to the permits in response to this comment.

Comment 94. Both sets of WLAs fall within the scope of Ecology's 401 certifications conditions necessary to prevent exceedances of water quality criteria. The allocations proposed by the Corps appear to represent a total increase of roughly 10% or less for the eight facilities combined in Washington State. Much of the change appears to result from attempts to better quantify summer water temperatures, and account for all generating facilities and design discharge rates. The Corps has proposed larger WLA adjustments for its facilities on the Columbia River in Oregon, for similar reasons. Others have also requested WLA adjustments, including Public Utility Districts with facilities on the mid-Columbia. We understand the above requests and that others could be accommodated while maintaining a reserve allocation for point sources, all within the existing point source allocation (0.1^{o}C) without impacting TMDL Load Allocations (LAs). Provided that is the case, it appears either choice by EPA would be consistent with EPA's approach to developing WLA's for point source discharges in the Columbia and Lower Snake Rivers Temperature TMDL (Ecology 2021, p. 1).

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

Comments Outside Scope of 2021 Public Comment

Comment 95. Monitoring, analysis and reporting requirements are redundant given the low risk and high cost of weekly and continuous sampling. A representative sampling approach should be utilized instead. In addition to the public comments in this letter, Bonneville's previous May 2020 public comments submitted to EPA on these draft NPDES permits remain a concern (BPA 2021, p. 3-5). We ask that EPA adhere to reasonable and cost-effective requirements for implementation. Specifically, we request that EPA not require duplicative, over-burdensome monitoring conditions (NWRP 2021, p. 2). EPA should work with the Corps to identify the most appropriate representative sampling approach for monitoring, analysis, and reporting of effluent (PPC 2021, p. 2).

Response. These comments are not in the scope of the second public notice but have been addressed in the first section of this response to comments document related to the first public notice period. See response to Comment 28.

Comment 96. In addition to the public comments in this letter, the Corps' 4 May 2020 public comments submitted to EPA on these draft NPDES permits remain a concern. The Corps appreciates all the hard work EPA has put into drafting and proposing changes to these draft NPDES permits that were originally issued for public comment in March 2020. The Corps' 4 May 2020 public comments stand. We anticipate that the final NPDES permits will address our concerns (USACE 2021, p. 2).

Response. Comment noted. Comments from the first public notice are addressed in the first section of

this response to comments document related to the first public notice period. EPA did not make changes to the permits in response to this comment.

Comment 97. The Corps requests the following: annual reports be due on 28 February, EPA use a representative sampling approach that reduces the frequency and location of weekly, monthly, and continuous monitoring as described in both the Corps' and Bonneville's May 2020 public comment letters, and at least 6 months between permit issuance and permit effectiveness to meet the requirements for detecting and calculating heat load. It also provides information on outfalls that are no longer in operation at The Dalles Lock and Dam and Little Goose Lock and Dam (USACE 2021, p. 2).

Response. These comments are not in the scope of the second public notice but have been addressed in the first section of this response to comments document related to the first public notice period.

Comment 98. The Corps requests that EPA consider the concerns that we have identified on the existing 401 water quality certification through our previous comment letter to WDOE and the appeal filed with the Pollution Control Hearing Board and either decline to incorporate the relevant conditions, deem them waived, or some combination of these options. The requirements contained in the final NPDES permits, including any conditions in the 401 water quality certifications that may be incorporated into the final permits, should be focused on regulating the discharges from the discrete point sources described in the Corps' NPDES permit applications, as opposed to the facilities as a whole. Additionally, the conditions in the final NPDES permits, or associated 401 Certifications, should not impair the Corps' ability to effectively operate and maintain the dams for the multiple congressionally-authorized purposes. Further, the language of the Clean Water Act (CWA) explicitly recognizes that the provisions of the CWA cannot be construed to affect the Corps' ability to maintain navigation. *See* 33 U.S.C. § 1371(a); *In re Operation of Missouri River System Litigation*, 418 F.3d 915 (8th Cir. 2005) (USACE 2021, p. 5-7).

Response. These comments are not in the scope of the second public notice but have been addressed in the first section of this response to comments document related to the first public notice period.

Comment 99. As required by 33 U.S.C. sec 1341(d), EPA must include a new special condition in each permits to ensure that all flows associated with the dams comply with state requirements for attainment of water quality standards. Each permit should also include a statement that the permittee must comply with Ecology's Section 401 certification, and include the certification as an appendix (Ecology 2021, p. 2). Clean Water Act section 401 requires that any federal permit resulting in a discharge into the waters of a state will be certified as assuring compliance with that state's water quality standards.NPDES permits are subject to state 401 certifications and the federal agency is required to include conditions therefrom into its permit. Accordingly, EPA should be implementing all conditions from Washington Ecology's May 2020 401 certification, including conditions related to load allocations addressed in the temperature TMDL. That EPA has not included all these conditions is contrary to law, whether interpreted under the previous CWA section 401 regulations or the September 2020 rule (CRITFC 2021, p.2). The permits would benefit from incorporating all of the terms and conditions found in Washington's Clean Water Act Section 401 Certifications for the projects. EPA should include **all** of the temperature-related conditions of Washington's CWA Section 401 Certifications in the NPDES permits. One such condition in Washington's Certifications—to incorporate the waste load allocations (WLAs) from the Lower Columbia and Snake Rivers Temperature TMDL—should be incorporated in the NPDES permits for the federal dams. The permits should also require compliance with all the load allocations—including the **temperature** load allocations for the reservoirs in EPA's TMDL (CTUIR 2021, p. 3). The Yakama

Nation is generally supportive of the EPA's decision to incorporate wasteload allocations from the Lower Columbia and Snake Rivers Temperature Total Maximum Daily Load ("TMDL") into the draft NPDES Permits, as required by the Certifications. However, the EPA has failed to incorporate all of the conditions from the Certifications. For example, it is not apparent that the draft NPDES Permits require the Corps to "implement temperature control strategies" or "consult with Ecology to develop a water quality attainment plan [that includes] a detailed strategy for achieving Washington's water quality standards for temperature..." The Certifications expressly require the Corps to take these actions, but the draft NPDES permits make no clear mention of them. Section 401 requires that each of the Certification provisions "shall become a condition" on the draft NPDES Permits. Therefore, the EPA cannot simply ignore Ecology's directives in the Certification. The EPA must further revise the draft NPDES Permits to incorporate the Certification conditions wholesale (Yakama Nation 2021, p. 3).

Response. These comments are not in the scope of the second public notice but have been addressed in the first section of this response to comments document related to the first public notice period.

Comment 100. EPA received comments solely on the temperature TMDL for the Lower Columbia and Snake Rivers (Gauthier 2021; Spurr 2021).

Response. These comments are not in the scope of the NPDES permits, but similar comments are addressed in EPA’s response to comments document issued with the 2021 Columbia River Temperature TMDL. EPA did not make changes to the permits in response to this comment.

Response to Comments from 2022 Public Notice

The following section includes comments from the September 15 – October 16, 2022 public notice of additional permit conditions and alternative permit conditions to address Oregon's water quality requirements for temperature. The comments are in the following categories: (1) General Comments; (2) Proposed permit conditions and Implementation; (3) Alternative permit Conditions; (4) Lower Operating Pools Study; and (5) Permit-Specific Comment

General Comments

Comment 101. Columbia Riverkeeper (CRK) reiterates and incorporates by reference comments submitted on June 21, 2022, in response to EPA's recommended conditions to address Oregon's 401(a)(2) objection. Salmon need cool water to survive, and the Dams are contributing to a hot water crisis in the Columbia River. The Dams add heat—through cooling water and reservoir heating—to a river system recognized by EPA as too warm to support salmon. Specifically, John Day and McNary dams together raise the temperature of the Columbia by an average of 0.6, 0.8, and 0.8°C in August, September, and October respectively. The devastating impact of hot water pollution on Columbia River salmon is not hypothetical. For instance, warm water in 2015 killed more than 277,000 adult sockeye salmon, mostly in the Columbia River below McNary pool. Last summer, PIT tag data shows a 70% mortality rate for Snake River sockeye through the hydrosystem. The Columbia River is too warm to support healthy native fish populations. (CRK, p.1-2).

Response. See response to Comment 106. EPA did not make changes to the permits in response to this comment.

Comment 102. EPA must remain cognizant of the unintended consequences to the Biden-Harris Administration's climate change, clean energy, and environmental justice objectives that would result from the discretion it grants to the State of Oregon through the Section 401 certification process. It cannot have been the intent of Congress for the Clean Water Act to worsen the climate crisis by reducing or eliminating carbon-free generation. Over-expansive conditioning authority provided to the State of Oregon would threaten to render Federal Columbia River Power System (FCRPS) dams infeasible or unable to achieve their Congressionally authorized purposes. NWRP implores EPA to consider the unintended consequences of granting the State of Oregon authority under Section 401 beyond the limited scope inherent in the statutory text (Northwest River Partners (NWRP), p.1, PPC, p. 1) Additionally, the conditions in the final NPDES permits should not impair the Corps' ability to effectively operate and maintain the dams for the multiple congressionally authorized purposes. The language of the CWA, in fact, explicitly recognizes that the provisions of the CWA cannot be construed to affect the Corps' ability to maintain navigation. *See* 33 U.S.C. § 1371(a); *In re Operation of Missouri River System Litigation*, 418 F.3d 915 (8th Cir. 2005). (BPA, p. 2). If EPA is going to add conditions to permits that implicate dam operations—either now or at some point in the future—it needs to ensure, in coordination with the Corps, that the permit does not require the Corps to alter operations in ways that violate these CWA and Congressional mandates. (Corps, p. 5)

Response. See responses to Comment 3, Comment 72, and Comment 106. EPA has established permit conditions that address Oregon DEQ's objection under CWA section 401(a)(2) to ensure that Oregon's water quality requirements for temperature are met, while providing the Corps flexibility to consider its own operations when identifying what actions are necessary to meet temperature water quality standards

in Washington and Oregon. EPA did not make changes to the permits in response to this comment.

Comment 103. Because EPA's proposed permit conditions do not provide fair notice on what actions the permit actually requires, and when it requires them, EPA's proposed conditions are improper and unreasonable, and therefore EPA should decline to adopt them. (Corps, p. 5).

Response. The permits require the Corps to develop a WQAP, Therefore, the Corps will be aware of the actions necessary to implement the permits. See responses to Comment 106, Comment 107, and Comment 109. EPA did not make changes to the permits in response to this comment.

Comment 104. The requirements included in the draft NPDES permits adequately address the discrete discharges of heat from the projects. The relevant discharge for which the Corps applied for an NPDES permit is the point source discharge of cooling water, which may contain heat. Under Section 401(a)(2), EPA must focus on this discharge, its effect on the quality of waters of another State, and whether any additional conditions are necessary to ensure compliance with the WQSs of the other state. Any heat discharges from cooling water are minimal and do not result in noncompliance with Washington or Oregon's water quality requirements (Corps, p. 1).

Response. CWA section 401(a)(2) requires the federal permitting authority to include conditions in a permit to ensure that a neighboring jurisdiction's water quality requirements are met when the neighboring jurisdiction has determined that such a discharge will affect its water quality. Pursuant to CWA section 401(a)(2), EPA has included provisions that allow ODEQ to approve the WQAP when necessary to ensure that Oregon's water quality standards are met (in the three circumstances where Oregon's water quality standards are different than Washington's water quality standards). In addition, the Corps is required to submit annual progress reports once the WQAP has been approved. The actions that the Corps chooses to include as part of the WQAP are not enforceable conditions of the permit. Therefore, the permit provides adequate notice of what is expected to meet the conditions of the permit.

CWA section 401 does not limit the analysis to an authorized discharge, but rather a certification addresses the impacts from "any discharge" from the activity. Accordingly, CWA section 401(a)(2) requires EPA to notify a neighboring jurisdiction "[w]henever such a discharge may affect" a neighboring jurisdiction's water quality, and the neighboring jurisdiction may object to the issuance of a federal license or permit where "such a discharge" will violate its water quality requirements.

EPA included additional conditions in the permit pursuant to CWA section 401(a)(2) which, unlike CWA section 402, uses the term "discharge" without qualification. When used without qualification, the term discharge includes, *but is not limited to,* discharges of pollutants. *See SD Warren v. Maine Board of Environmental Protection,* 547 US 370 (2006) (Court held that releasing water through a dam constituted a discharge for purposes of section 401 and, thus, the CWA provided states with the ability to address water quality impacts from these releases through the certification process). EPA included conditions on the discharge from the dams necessary to ensure that Oregon's water quality requirements are met pursuant to its authority under CWA section 401(a)(2). See also response to Comment 106.

Comment 105. Bonneville Power Association (BPA) also reiterates its June 21, 2022 comments to EPA that NOAA and USFWS (Services) did not consult on potential future operational changes that may result from these permits. BPA, the Corps and Reclamation memorialized their decision to implement that proposed action in addition to the terms and conditions included in the Services' biological opinions

resulting from that consultation in the Columbia River System Operations (CRSO) EIS Record of Decision. The proposed action consulted upon in those biological opinions describes the operation of the reservoirs, including elevations, of the four lower Columbia River dams.

The Services evaluated the impact of those operations on the species listed under the Endangered Species Act (ESA) for which they have jurisdiction and concluded that those operations, along with the rest of the proposed action, are not likely to jeopardize the continued existence of those ESA-listed species or destroy or adversely modify designated critical habitat. If EPA's permit conditions effectively require a new dam operation, EPA must satisfy the requirements of the ESA before it can grant permits with such conditions, including those in Section 7(a)(2) and Section 9 of the ESA, 16 U.S.C. §§ 1536, 1538. EPA would also need to define the proposed permit condition with enough specificity so that the Services can conduct an analysis of the effects of that condition on ESA-listed species. 50 C.F.R. § 402.14(c). BPA and other commenters detailed the significant adverse consequences to ESA-listed species of ODEQ's proposed permit conditions in the June 2022 comment letters. EPA must independently ensure that its issuance of a permit with conditions meets the requirements of the ESA. (BPA, p.4; Corps, p. 5)

Response. See response to Comment 81. EPA did not make changes to the permits in response to this comment.

Proposed Permit Conditions and Implementation

Comment 106. It is the Corps' position that additional permit conditions are not necessary to ensure compliance with Oregon's water quality requirements for temperature and therefore are beyond the scope of Section 401(a)(2). EPA's proposed additional water temperature conditions attempt to make the Corps responsible for general WQSs in the lower Columbia River, specifically water temperature standards, and EPA should not incorporate those conditions into its permits. The Corps' responsibility under the NPDES permits is limited to addressing the addition of pollutants caused by or attributable to the dam/project operations and does not include addressing water temperature issues that are not caused by the Corps' discrete discharges of pollutants. (Corps, p. 4)

Response. EPA recognizes that temperature in the Columbia River is a complex problem. As explained in the response to Comment 72, EPA included permit conditions from Ecology's CWA section 401 certifications to ensure compliance with Washington water quality standards. See 33 U.S.C. § 1341(d), 40 CFR §§ 124.55(a) and 124.53(e). CWA section 401(a)(2) requires the permitting authority to include conditions that may be necessary to ensure that an affected jurisdiction's water quality requirements are met. In the 2022 Fact Sheet, EPA explained the basis for the additional permit conditions that are needed to ensure Oregon's temperature water quality requirements are met. The addition of these conditions addresses Oregon DEQ's objection to the permits under CWA section 401(a)(2).

The permits include the following conditions:

1. The permittee must implement temperature control strategies and meet the load allocations in the Columbia and Lower Snake Rivers Temperature TMDL (RCW 90.48.080 and WAC 173-201A-510(5)).
2. The permittee must consult with Ecology to develop a water quality attainment plan (WQAP) per the conditions below:
    a) The WQAP shall include all applicable requirements in WAC 173-201A-510(5) *Compliance schedule for Dams*, and must include a detailed strategy for achieving

Washington's water quality standards for temperature and associated designated uses, including but not limited to, conditions in fish bypass systems of the dam.

b) The permittee must provide the scope of the WQAP to Ecology for review one year after the permit effective date.

c) The permittee must provide the final WQAP to Ecology for approval within two years of the permit effective date.

d) The permittee must submit a progress report to Ecology for approval within six years of the effective permit date. The permittee must submit a summary report to Ecology for approval within nine years of the permit effective date and prior to the end of the ten-year dam compliance period.

e) The permittee must contact EPA if Ecology does not approve the final WQAP or summary report within 60 days of submittal.

3. The permittee must consult with Oregon DEQ on the following conditions of the WQAP per the conditions below:

a) **The WQAP must include a detailed strategy for achieving Oregon's water quality standards for temperature at Permit Part II.F.3.b., including interim milestones and timelines for when the strategy will be implemented.**

b) The permittee must provide the final WQAP to Oregon DEQ within two years of the permit effective date for review and approval of actions to achieve the following standards:

i. 13°C for the salmon and steelhead spawning through fry emergence designated use at RM 141.5-143.5 in the Lower Columbia River (to protect chum salmon spawning) from October 15 – March 31 below Bonneville Dam [OAR-340-041-0101-Table 101B; OAR 340-041-0028(4)(a)];

ii. Seasonal thermal pattern in the Columbia River [OAR 340-041-0028(4)(d)]; and

iii. Cold water refugia [OAR 340-041-0028(4)(d)].

c) The permittee must submit a progress report to Oregon DEQ for approval within six years of the effective permit date. The permittee must submit a summary report to Oregon DEQ for approval of the actions for the standards at Permit Part II.F.3.b.

d) The permittee must contact EPA if Oregon DEQ does not approve the final WQAP or summary report within 60 days of submittal.

3. The permittee must comply with total dissolved gas standards in WAC 173-201A-200(1)(f), or any future modification to the standards thereof.

4. The permittee must submit WQAP reports to Ecology and Oregon DEQ to the following addresses, unless agreed upon by Ecology and Oregon DEQ.

Comment 107. The review and approval process between Ecology and DEQ is unclear and potentially unworkable. The Corps requests that EPA either impose a resolution process if the States cannot or will not come to an agreement with each other for plan approvals or specify that the Corps has no obligations unless or until Oregon and Washington reach agreement. To be workable, EPA must define the approval process more thoroughly and address the following questions: Is the WQAP only approved when both Oregon and Washington approve their respective portions of the WQAP? Is there a process in which EPA would override a State's WQAP disapproval? What is the timeline for State approvals? These steps should be fully acknowledged and defined in the NPDES permits (Corps, p. 4).

Reclamation also requests that the process be further defined to clarify how disputes between WADOE and ODEQ are resolved, statutory time limits on plan approval, and the process for any potential plan deadline changes with EPA if, for instance, a master FCRPS-wide water quality attainment plan were to

be created to allow for operational flexibility outside of individual projects. Without specifically outlining the envisioned process, dual Clean Water Act (CWA) approval unnecessarily risks fostering conflict, delays, and limitations on permittee actions to comply with these permits (BOR, p.1). EPA should provide leadership in its issuance of these permits that will result in timely decisions to avoid delays in implementation that could adversely affect water quality and operational decision-making ((BPA, p. 4, Public Power Council (PPC), p. 1).

Response. The permit conditions provide for two years to develop a final WQAP to be submitted for review and approval by Ecology and Oregon DEQ. In addition, a WQAP scope must be submitted one year after the effective date of the permits. EPA encourages the permittee to engage in early coordination with Ecology and Oregon DEQ to ensure the development of an approvable WQAP.

EPA acknowledges that Ecology and Oregon DEQ could arrive at different conclusions regarding what constitutes an approvable plan, which could complicate the ability of the Corps to meet its permit requirements. Therefore, EPA has added the following language to Section II.F of the permits for Bonneville Project, The Dalles Lock and Dam, and John Day Project, and to Section II.E. of the McNary Lock and Dam permit: "The permittee must contact EPA if Ecology does not approve the final WQAP or summary report within 60 days of submittal" and "The permittee must contact EPA if Oregon DEQ does not approve the final WQAP or summary report within 60 days of submittal." EPA plans to initiate discussions among Ecology, Oregon DEQ, and EPA on the process to resolve disputes over the WQAP elements that could occur, if any. See response to Comment 106.

Comment 108. While EPA is <u>not</u> proposing that Oregon have full review and approval authority of the WQAP, EPA is also taking comment on whether Oregon should have full review and approval authority of the WQAP. As noted in DEQ's comment letter dated June 21, 2022, limiting DEQ's review and approval solely to the provisions of Oregon's water quality standards that are different from Washington's may inadvertently set up an inefficient system for coordination, review and action by Oregon. Oregon continues to believe that it is in the best interest of Washington, Oregon, EPA and the permittee to ensure that processes set up to review and evaluate implementation are coordinated and provide, to the greatest extent possible, a mutually agreed upon path to implementation. DEQ appreciates that the Federal Columbia River Power System is a system withing a complex, large basin and needs to be evaluated as such to ensure any changes to management and operations of dams or other proposed actions to address temperature maximizes benefits and does not have unintended consequences. Likewise, Washington and Oregon's water quality standards as they relate to temperature are complex and interrelated. Limiting Oregon's review to only the aspects of Oregon's temperature that differ from Washington's assumes that Oregon's review can be conducted in isolation from the remainder of Oregon's temperature water quality standards. Oregon's longstanding practice is to consider all the temperature-related standards together when evaluating potential effects and requirements. As such, the permit's associated consultation and review should be inclusive of Oregon to facilitate an outcome of Washington and Oregon providing similar direction to the permittee on evaluation and selection of alternatives to comply with water quality standards. (Oregon DEQ, p. 2)

Response. See responses to Comment 106, Comment 107, and Comment 114. EPA did not make changes to the permits in response to this comment.

Comment 109. Water temperature within the lower Columbia River is subject to numerous contributing sources, environmental conditions, and tributary inputs that drive flow and seasonal thermal patterns. The Corps' dams, and specifically the lower Columbia River dams, are run-of-river, well-mixed and generally isothermal, and thus the water that flows out is the same temperature as the water that flows in. These dams lack the ability to control river water temperatures generally and do not add pollutants in ways that lead to demonstrable temperature changes in the river. Nor can operational changes be enough to meet Oregon's narrative WQS criteria. The Corps is not solely responsible for ensuring WQS attainment generally within the lower Columbia River. In sum, the Corps is not solely responsible for ensuring WQS attainment generally within the lower Columbia River, and EPA's proposed conditions that contemplate shifting responsibility to the Corps to manage river temperatures created by a variety of sources and natural factors exceeds what the CWA allows under these circumstances and should not be included as a condition of the NPDES permit. These issues should be addressed and determined during the TMDL implementation discussions led by DEQ and the Washington Department of Ecology (Ecology). Because of this, EPA should follow the CWA and ensure any NPDES permit condition requiring a strategy for achieving WA and OR water quality standards (WQSs) for temperature is strictly focused on discrete/distinct addition of temperature attributable to the operation of the dam/project. (Corps, p. 1; NWRP, p. 2-3)

Response. See response to Comment 106. The permit conditions require the Corps to develop a WQAP plan, but does not specify the elements that must be included in that plan. As a result, the permit conditions allow flexibility for the Corps to consider a wide range of options, such as an analysis of lower operating pools, operations across the Columbia River System Operations, facility-specific measures, watershed tributary work, or other actions. EPA did not make changes to the permits in response to this comment.

Implementing Oregon and Washington Temperature Water Quality Requirements

Comment 110. EPA is proposing to provide ODEQ with review and approval authority where Oregon's water quality standards differ from Washington's. In particular, EPA identified three water quality standards:

1. 13^{O}C for the salmon and steelhead spawning through fry emergence designated use at RM 141.5- 143.5 in the Lower Columbia River (to protect chum salmon spawning) from October 15 – March 31 below Bonneville Dam [OAR-340-041-0101-Table 101B; OAR 340-041-0028(4)(a)];
2. Seasonal thermal pattern in the Columbia River [OAR 340-041-0028(4)(d)]; and
3. Cold water refugia [OAR 340-041-0028(4)(d)].

These conditions are variously not supported by the best available science regarding fish and wildlife benefits or are outside the scope and scale of the operational impacts of the multipurpose hydro facilities in question (PPC, p. 2).

Response. See response to Comment 104 and Comment 106. As explained in the 2022 Fact Sheet, EPA considered what was needed to ensure that Oregon's temperature water quality requirements were met. In particular, EPA explained that there are three temperature water quality standards that are unique to Oregon and are not addressed by Ecology's 401 certification conditions. Oregon's temperature water

quality standards protect the designated uses of the lower Columbia River, and EPA has approved those water quality standards for CWA purposes. To the extent that the commentor believes that these water quality standards are not supported by the best available science regarding fish and wildlife benefits, the time to raise those concerns was when Oregon DEQ adopted the water quality standards.

Since there are differences between Oregon's water quality standards and Washington's water quality standards, the conditions in Ecology's certification along with the permit conditions that are already contained in the permits will not ensure that all of Oregon's water quality standards are met. Therefore, as explained in detail in the 2022 Fact Sheet, EPA has determined that additional permit conditions are necessary to address Oregon DEQ's objections under CWA section 401(a)(2). EPA did not make changes to the permits in response to this comment.

Comment 111. For the 13^{O}C for the salmon and steelhead spawning through fry emergence designated use, EPA states that ODEQ's standard is related to chum salmon spawning in a particular location in the Columbia River. ODEQ's standard does not specify the specific species intended to receive the benefit of this standard. If we assume that EPA has interpreted ODEQ's standard correctly, BPA notes that based on chum salmon surveys, these species are not typically present in the Ives Island area until the first week of November instead of the October 15 date noted in the standard. Chum salmon also preferentially select areas of warm upwelling water to spawn (i.e. warmer than 13C), so if the standard mentioned is intended to be protective of chum salmon spawning, it is not aligned with current chum salmon science.

If the temperature in the Ives Island area is kept too low, chum salmon spawning may be delayed. If this spawning activity is delayed, there is the potential that juvenile chum salmon (alevins) staged in gravel habitat downstream of Bonneville Dam would be impacted by rising TDG levels in shallow water as a result of increasing runoff and spring spill levels. ODEQ has provided that "other waters of less than two feet in depth, the concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection may not exceed 105 percent of saturation" indicating that high levels of TDG in these shallow waters is a concern for fish or other aquatic life. (BPA, p. 2-3)

Response. ODEQ has identified the applicable WQS for the Columbia River and this designated use is what applies to the river. Therefore, it is irrelevant where chum salmon are located. See response to Comment 110. EPA did not make changes to the permits in response to this comment.

Comment 112. For the seasonal thermal pattern in the Columbia River, EPA erred in proposing to include this standard in a Clean Water Act (CWA) Section 402 NPDES permit for projects in the lower Columbia River basin. These projects do not control water temperatures and do not have the ability to shift thermal patterns. This is because the thermal pattern of the Columbia River is affected by many factors, including air temperature, climate change, non-point source pollution and incoming tributary temperatures, and importantly, impoundments in Canada. By including this condition, EPA is proposing conditions that are impossible for the Corps to meet because it cannot affect the complex seasonal thermal pattern of the Columbia River. EPA should be focused on reasonable and realistic permit conditions for the NPDES permits and not on imposing conditions on the Corps that are not realistic and feasible. This will avoid intractable differences between the Corps and CWA regulatory agencies.

Reclamation does not believe that this water quality standard is reasonable to include in a CWA 402 point source discharge permit for any U.S. Army Corps of Engineers facility on the Lower Columbia River. Reclamation is concerned that this condition will be impossible for the action agencies to satisfy and

could be used as a mechanism for disapproval of water quality attainment plans that are otherwise realistic and feasible. The thermal pattern of the Columbia and Snake rivers is influenced by factors outside of the undefined phrase "natural seasonal progression," as well as other factors outside of the action agencies' control, including climate change and non-point source pollution. To further frustrate compliance with this standard, the thermal shift of the Columbia River begins outside of the territory of the United States at impoundments in Canada. While ODEQ has referenced selective withdrawal structures as potential methods for complying with this standard, they are not useful for most of the reservoirs on the Columbia River, which are run of river or do not stratify sufficiently to provide a source of cold water due to low residence time (BOR, p. 2).

The standard cited further states that the seasonal pattern "…must reflect the natural seasonal thermal pattern". "Natural Conditions" is defined in 340-041-0002(40) as "…the physical, chemical, or biological integrity of a water of the state that are not influenced by past or present anthropogenic activities." This suggests that the seasonal thermal pattern of the water in the reservoir must be the same as it was prior to completion of the lower Columbia River dams. Due to the mass of water stored behind any dam the current seasonal pattern will not be the same as it was prior to construction and existence of the dam, and dam operations cannot significantly influence that. (Corps, p.3).

The existence of the dams, as operated for Congressionally-authorized project purposes, contribute to a shift in the natural water temperature regime in the Columbia and Snake Rivers and create cooler than natural conditions in the spring and early summer and warmer conditions during the fall and winter months. That said, there is limited opportunity to change bulk river water temperatures through operational or structural technologies at run-of-river dams. Water flowing into the lower Columbia River reservoirs is typically warmer than 13°C during October and cannot be cooled by lower Columbia project operations at McNary, John Day, The Dalles or Bonneville dams.

Allowances need to be made for periods when river water temperatures hundreds of miles upstream from the compliance point are already warmer than the standard (Corps, p. 5).

Response. EPA has included consideration of the natural seasonal thermal pattern water quality standard as part of the WQAP because it is one of Oregon's temperature water quality standards that is applicable to the Lower Columbia River and dam operations affect the natural seasonal thermal pattern of the Columbia River. The rationale for including this standard and other Oregon temperature water quality requirements is explained in the 2022 Fact Sheet and in the response to Comment 110.

Section 2.6 of the Columbia and Lower Snake Rivers temperature TMDL describes the connection between dam operations and Oregon's natural seasonal thermal pattern water quality standard and that "attaining numeric targets associated with the numeric criteria in the TMDL would reduce fall temperatures to attain the NSTP narrative criterion. Specifically, the dam allocations associated with the 16°C criterion at Grand Coulee Dam, the 13°C criterion at Bonneville Dam in October and the 20°C criterion for the lower Columbia Dams in September would result in attainment of the NSTP narrative criterion."

Oregon DEQ, in its comment letter, further states that "Oregon's longstanding practice is to consider all the temperature-related standards together when evaluating potential effects and requirements." Therefore, EPA has included consideration of the natural seasonal thermal pattern water quality standard in the WQAP because it is necessary to meet Oregon's water quality requirements for temperature and allows Oregon to consider all its temperature water quality standards that are distinct from Washington's. See response to Comment 110. EPA did not make changes to the permits in response to this comment.

Comment 113. The approaches necessary to achieve Oregon's thermal criteria (the cold water refugia criterion in particular), the TMDL load allocations for tributaries, and the goals of EPA's Columbia River Cold Water Refuges Plan, will be distinct and unique from the other criteria but are not treated as such in the new proposed permit provisions. EPA, however, did not include a watershed restoration component as part of the permits, nor did it give the Army Corps of Engineers or the states guidance on the scope of activities that could be undertaken to achieve compliance. We believe this omission significantly lowers the chance that all temperature requirements will be met, further jeopardizing imperiled salmon and steelhead, while increasing the likelihood of litigation. Indeed, the Corps has indicated that changes to dam operations are unlikely to lower river temperatures. This begs the question of how compliance with the numeric criteria will be achieved. That question may be resolved separately from the issue of Oregon's thermal criteria. By not separately addressing this distinct aspect of water quality standard compliance, EPA risks an "all or nothing" compliance outcome, when, in reality, any process undertaken to discover achievable. We again reiterate our suggestion that EPA include a provision that supports a watershed restoration strategy as part of a broader compliance regime. Doing so will provide the Army Corps of Engineers greater flexibility in meeting its obligations under the Clean Water Act and increase the likelihood of success in addressing all aspects of the temperature problem in the Columbia and lower Snake Rivers. In addition to helping to ensure NPDES permit compliance and meeting TMDL load allocations for tributaries, a watershed strategy supports EPA's Columbia River Cold Water Refuges Plan, which was developed, in part, as a strategy for meeting Oregon's cold water refugia narrative standard. In the Plan, EPA states that mean August temperatures in the Lower Columbia are projected to increase from the current 22°C to near 23°C in 2040 and 24°C in 2080. EPA notes that temperatures in the 23-24°C range would likely result in significant mortality of migrating adult salmon and steelhead and fewer salmon and steelhead migrating in July and August under these warming trends. These predictions are alarming and such a future should be avoided. The Plan describes existing cold-water refuges and actions that should be taken to enhance and protect these areas. In essence, the Plan is a road map for implementing a watershed strategy, which in concert with operational and structural changes at the dams and reservoirs, would provide the greatest chance of staving off the worst effects of climate change while supporting conditions conducive to safe salmonid migration. An unambiguous statement from EPA to Ecology and Oregon DEQ in support of a watershed restoration strategy for TMDL implementation is needed and will provide the guidance state water quality agencies desire (The Freshwater Trust (TFT), p, 2-3).

Response. As stated in responses to Comment 102 and Comment 108, the permits provide the Corps the opportunity and flexibility to determine actions in its WQAP that will meet the LAs from the 2021 Columbia River Temperature TMDL as well as Washington's and Oregon's temperature water quality standards. While the permits do not specify what those actions are, one of the components of the TMDL is maintaining or improving flows and temperatures in specific cold water refuges. To meet this component, the Corps could include some sort of watershed restoration activity in the WQAP. However, as previously stated, the WQAP condition was established in a way that ensures that the Corps has flexibility to determine what specific actions to identify in the WQAP. EPA did not make changes to the permits in response to this comment.

Alternative Permit Conditions

Comment 114. We appreciate EPA's recognition, reflected in the most recent permit Fact Sheet, that Oregon must have the authority to ensure that the Army Corps complies with *all* aspects of Oregon's water quality standards for temperature that are not substantially similar to Washington's. Specifically, the Fact Sheet recognizes that Oregon's "numeric criteria of a 7-day average daily maximum of 20°C for salmon and steelhead migration corridors" is one of the "substantial differences" between Oregon and Washington's temperature standards. EPA acknowledges that this and other "differences between the two states' water quality standards warrant additional permit conditions to ensure Oregon's water quality requirements for temperature are met." We agree with EPA's conclusions that Oregon must have the authority, and is best positioned, to ensure that the Army Corps complies with Oregon water quality standards where they are substantially different from Washington's, including the 7-day average daily maximum of 20°C.

Unfortunately, the proposed changes to the language of the draft permits do not effectuate or align with the conclusions expressed in the Fact Sheet. Instead, the draft permits carry forward EPA's original proposal that needlessly constrains Oregon's review of the Water Quality Attainment Plans (WQAP) to water quality standards related to seasonal thermal pattern, cold water refuges, and spawning criteria directly below Bonneville dam. In light of EPA's conclusion that the 7-day average daily maximum of 20°C is one of the "substantial differences" between Oregon and Washington's temperature standards, EPA's proposal to constrain Oregon's review authority to exclude the 7-day average daily maximum of 20°C is arbitrary and capricious. And for the reasons explained in our June 21, 2022, letter, the draft NPDES permit language does not ensure compliance with Oregon's water quality standard, as Section 401(a)(2) of the Clean Water Act requires. The proposed permit language is at odds with EPA's own conclusions in the Fact Sheet, as well as the requirements of the Clean Water Act. (CRK, p. 2-3; TFT, p. 3))

Response. Although EPA believes that it is most appropriate for Oregon DEQ to assess whether its own temperature water quality standards are met in the WQAP, the permit conditions provide review and approval authority for those areas where Oregon has temperature water quality standards that are distinctly different than Washington as explained in the 2022 Fact Sheet and in EPA's June 7, 2022 evaluation and recommendation (EPA 2022a). As stated in CRK's comment, EPA identified differences between Oregon's and Washington's temperature water quality standards in the 2022 Fact Sheet, including Oregon's numeric criteria of a 7-day average daily maximum of 20°C for salmon and steelhead migration corridors designated use and Washington's numeric criterion of a 1-day daily maximum of 20°C for spawning and rearing uses for aquatic life. However, Washington's 20°C numeric criterion is more stringent than Oregon's, since temperature criterion must be met daily instead of averaged over a week. Therefore, EPA did not include this standard in Oregon's purview for review and approval since actions to meet Washington's water quality standard would also result in meeting Oregon's water quality standard. Although EPA accepted comment on alternative conditions giving Oregon full approval authority, EPA concluded that providing Oregon review and approval authority on its distinct standards will ensure compliance with Oregon's temperature water quality requirements. EPA did not make changes to the permits in response to this comment.

Comment 115. Instead of needlessly and arbitrarily constraining Oregon's ability to protect its water quality standards, EPA should adopt the "Alternative permit conditions for full WQAP review and approval by Oregon DEQ" (hereinafter, "Alternative Conditions") that appear on pages 21 and 22 of the

Fact Sheet. Adopting these Alternative Conditions is the best way to ensure EPA's compliance with the Clean Water Act and effectuate EPA's conclusions in the Fact Sheet that Oregon should have authority to protect its water quality standards—including the 7-day average daily maximum of 20℃—that substantially differ from Washington's standards. To alleviate any potential confusion about the Alternative Conditions somehow giving Oregon authority to enforce Washington water quality standards or creating potentially conflicting approval processes, EPA could insert into the Alternative Conditions (probably at section I.2.a) reference to the specific standards for which Oregon has authority to review and approve the WQAPs, including the 7-day average daily maximum of 20℃. The Alternative Conditions' inclusion of Oregon alongside Ecology at the front end of the WQAP development process is likely to avoid regulatory uncertainty and delay in the long run—not contribute to it, as some commenters incorrectly assert. (CRK, p. 2)

Response. See responses to Comment 110 and Comment 114. EPA did not make changes to the permits in response to this comment.

Comment 116. EPA should also require the permittee to consult with DEQ during the development of the WQAP on the same schedule as the review by Ecology, as described in Section F.2 of the draft permit. This early coordination will help ensure that the permittee and DEQ have interactions regarding Oregon's water quality standards and help avoid a circumstance where the permittee develops a plan that is not approvable by DEQ two years later when the plan is finally submitted to DEQ for review and approval. Further, DEQ supports the inclusion of the alternative language proposed by EPA in the fact sheet, section "I. Alternative permit conditions for full WQAP review and approval by Oregon DEQ." However, DEQ requests that Section I.2. read "The permittee must consult with Ecology and DEQ to develop a water quality attainment plan (WQAP) per the conditions below." (Oregon DEQ, p. 2)

Response. See responses to Comment 106 and Comment 107. EPA did not make changes to the permits in response to this comment.

Comment 117. EPA's draft permit language is contrary to the purpose of Section 401 of the Clean Water Act, which was intended to give states and tribes the authority to protect their own water quality standards. With great respect and appreciation for Washington's leadership in addressing Columbia River temperature problems caused by the dams, Oregon has an equal stake in the outcome and there is no good reason to prevent Oregon from simultaneously safeguarding its water quality standards. Indeed, the highly contentious and politicized nature of issues involving the Dams—coupled with the Army Corps' decades of recalcitrance and obfuscation in response to water temperature problems and Clean Water Act violations—strongly suggest that additional oversight by Oregon is warranted and reasonable. Nothing in Section 401(a)(2) compels EPA to propose the absolute minimum conditions necessary to potentially meet an objecting state or tribe's water quality standards. Rather, Section 401(a)(2)'s directive to "condition [the] permit in such manner as may be necessary to insure [sic] compliance with applicable water quality requirements" (emphasis added) strongly suggests that EPA has broad latitude to go beyond proposing the minimum conditions that might result in attainment of downstream water quality standards. Accordingly, and in light of the purpose of Section 401, EPA should not unnecessarily limit Oregon's authority over the WQAPs. (CRK, p. 3).

Response. See response to Comment 114. EPA did not make changes to the permits in response to this comment.

Comment 118. Additional permit conditions should be added that require a compliance alternatives analysis that considers, but is not limited to, operational changes at the dams, including reservoir drawdown, watershed program implementation, and cold water releases from upstream reservoirs, within eighteen (18) months after the permit effective date. In addition, the permit should include permit conditions requiring the implementation of WQAP elements related to the Oregon cold water refugia criterion within one year of the WQAP approval (TFT, p. 4).

Response. See responses to Comment 102 and Comment 108. EPA did not make changes to the permits in response to this comment.

Lower Operating Pools Study

Comment 119. BPA commends EPA for not including ODEQ's third supplemental condition, Initial Study of Temperature, in the current draft NPDES permits for the four lower Columbia River projects. As evidenced in BPA's and others' comments, changing reservoir pool operations has drastic negative effects to many affected resources, including Endangered Species Act-listed species, Power and Transmission generation and reliability, and Tribal Harvest while providing negligible effects to water temperature. (BPA, p. 2)

Response. Comment noted. As stated in EPA's 2022 Fact Sheet, while EPA is not requiring a study on lower operating pools, EPA recognizes that a study evaluating the facilities operating at lower pools could be valuable to understanding the potential impacts on water temperatures and could inform ways to meet LAs specified in the 2021 Columbia River Temperature TMDL. EPA encourages the Corps to consider whether such an action should be included in the WQAP. EPA did not make changes to the permits in response to this comment.

Comment 120. The Corps opposes EPA's alternative condition which would give full WQAP review and approval to DEQ. The nature of DEQ's objection is limited to whether the permits will assure attainment of Oregon's WQSs for temperature. DEQ's objection itself goes beyond the scope of Section 401(a)(2) and giving DEQ additional approval authority beyond the additional conditions identified in sections Part II.F.3.a.i-iii of the Bonneville, The Dalles, and John Day permits and Part II.E.3.a.i-iii of the McNary permit goes above and beyond what is necessary to resolve their objections under Section 401(a)(2). For example, in their objection, DEQ made it clear that it is interested in requiring the Corps to study and implement certain minimum operating pool (MOP) conditions as part of the WQAP, and the Corps reiterates its previous comments in its 21 June 2022 letter that details the substantial detrimental effects that this operation would cause in the lower Columbia River. Granting DEQ full approval authority over the WQAP is beyond what is required under Section 401(a)(2), beyond the scope of DEQ's objection, and could cause conflict between the states on what is required under the WQAP.

Response. See responses to Comment 107, Comment 108, and Comment 114. EPA did not make changes to the permits in response to this comment.

Comment 121. We commend EPA's recognition that the WQAP process can and should include study and, where appropriate, implementation of reservoir drawdown to address temperature problems. As the Fact Sheet explains, "EPA has determined that Ecology's 401 certification allows for the inclusion of a lower operating pool study in the WQAP and that the WQAP process affords Ecology and Oregon DEQ the opportunity to determine the appropriate scope and elements of such a study if it is required." Because reservoir surface area and water residence time appear to be significant drivers of water temperature changes in the lower Columbia, reservoir drawdown (which reduces both) is among the few strategies that could meaningfully affect summer and fall water temperatures. We therefore appreciate EPA's explicit recognition that Washington and Oregon may require the Corps to analyze and implement drawdown as part of the WQAPs (CRK, p.4).

Response. See responses to Comment 107, Comment 108, and Comment 114. EPA did not make changes to the permits in response to this comment.

Permit-Specific Comment

Comment 122. Part II.F.3 of The Dalles and John Day permits and Part II.E.3 of the McNary permit addresses compliance with Washington total dissolved gas standards, but 3.a and 3.b address water temperature and should be a separate permit condition as it is in the Bonneville permit.

Response. EPA agrees with this comment and will include permit conditions in all permits from the response to Comment 106.