



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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March 23, 2022

U.S. Army Corps of Engineers, Seattle District  
Attn: Laura Boerner, Chief  
Planning, Environmental, and Cultural Resources Branch  
4735 East Marginal Way South, Building 1202  
Seattle, WA 98134-2388

RE: Water Quality Certification Order #21015 for Howard A. Hanson Dam Additional Water  
Supply Project Phase 1 Fish Passage Facility, King County, Washington

Dear Laura Boerner:

On November 22, 2021, the U.S. Army Corps of Engineers, Seattle District submitted a request for a Section 401 Water Quality Certification (WQC) under the federal Clean Water Act for the Howard A. Hanson Dam Additional Water Supply Project Phase 1 Fish Passage Facility project, King County, Washington.

On behalf of the state of Washington, the Department of Ecology certifies that the work described in the Water Quality Certification Request and supplemental documents complies with applicable provisions of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, as amended, and applicable state laws. This certification is subject to the conditions contained in the enclosed Water Quality Certification Order (WQC Order).

Please ensure that anyone doing work under this WQC Order has read, is familiar with, and is able to follow all of the provisions within the attached WQC Order.

If you have any questions about this decision, please contact Rebekah Padgett at (425) 365-6571. The enclosed WQC Order may be appealed by following the procedures described within.

Sincerely,

Handwritten signature of Joe Burcar.

Joe Burcar, Section Manager  
Northwest Regional Office  
Shorelands and Environmental Assistance Program  
Enclosure

U.S. Army Corps of Engineers, Seattle District

March 23, 2022

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E-cc: Laura A. Boerner, US Army Corps of Engineers  
Nancy Gleason, US Army Corps of Engineers  
Stewart Reinbold, WA Department of Fish and Wildlife  
Doug Robison, WA Department of Fish and Wildlife  
Michael Garrity, WA Department of Fish and Wildlife  
Ben Blank, WA Department of Fish and Wildlife  
David Price, National Marine Fisheries Service  
Stephanie Ehinger, National Marine Fisheries Service  
Molly Good, U.S. Fish and Wildlife Service  
Railin Santiago, Ecology  
Gary Myers, Ecology  
Grant Yang, Ecology  
Amy Jankowiak, Ecology  
Jay Fennell, Ecology  
Loree' Randall, Ecology  
[ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov)

**IN THE MATTER OF GRANTING A ) WQC ORDER No. 21015**  
**WATER QUALITY )** Howard A. Hanson Dam Additional Water  
**CERTIFICATION TO )** Supply Project Phase 1 Fish Passage Facility,  
U.S. Army Corps of Engineers, Seattle ) Green River located in King County,  
District ) Washington.  
pursuant to 33 U.S.C. 1341 (FWPCA )  
§ 401), RCW 90.48.120, RCW 90.48.260 )  
and Chapter 173-201A WAC )

U.S. Army Corps of Engineers, Seattle District  
Attn: Laura Boerner, Chief, Planning, Environmental, and Cultural Resources Branch  
4735 East Marginal Way South, Building 1202  
Seattle, WA 98134-2388

On November 22, 2021, U.S. Army Corps of Engineers, Seattle District (Corps) submitted a request for a Section 401 Water Quality Certification (WQC) under the federal Clean Water Act to the Department of Ecology (Ecology) for the Howard A. Hanson Dam Additional Water Supply Project Phase 1 Fish Passage Facility, King County, Washington. On December 17, 2021, Ecology issued a public notice for the project.

The project proposes to complete construction of a downstream juvenile fish passage facility at the Howard A. Hanson Dam as the one remaining component of the Additional Water Storage Project Phase 1. Project components include a multiport collector structure to be constructed within the existing permanent cofferdam, a steep slope bypass pipe containing a primary fish passage route and a full-flow bypass connecting the multiport collector to the release site, a deceleration pipe outlet, a stilling basin constructed in the river, and a plunge pool approximately 1,200 feet downstream from the base of the dam for juvenile fish refuge.

The project site is located at River Mile 64.5 on the Green River, near the town of Palmer, King County, Washington, Section 28, Township 21 N., Range 8 E., within Water Resource Inventory Area (WRIA) 9, Duwamish-Green Watershed.

## **AUTHORITIES**

In exercising authority under 33 U.S.C. § 1341, RCW 90.48.120, and RCW 90.48.260, Ecology has reviewed this WQC request pursuant to the following:

1. Conformance with applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under 33 U.S.C. §§1311, 1312, 1313, 1316, and 1317
2. Conformance with the state water quality standards contained in Chapter 173-201A WAC and authorized by 33 U.S.C. §1313 and by Chapter 90.48 RCW, and with other applicable state laws; and

3. Conformance with the provision of using all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.
4. Conformance with Washington’s prohibition on discharges that cause or tend to cause pollution of waters of the state of Washington. RCW 90.48.080.
5. The Applicant of the project authorized is responsible for obtaining all other permits, licenses, and certifications that may be required by federal, state, local or tribal authorities.

With this Water Quality Certification Order (WQC Order), Ecology is granting with conditions, the Corps’ request for a Section 401 Water Quality Certification for the Howard A. Hanson Dam Additional Water Supply Project Phase 1 Fish Passage Facility, Green River, located in King County. Ecology has determined that the proposed discharge(s) will comply with all applicable state water quality requirements, provided the project is conducted in accordance with the Section 401 Water Quality Certification request that Ecology received on November 22, 2021, the supporting documents referenced in Table 1 below, **and the conditions of this WQC Order.**

**Table 1.** Supporting Documents

Date Received	Document Type	Title & Date	Author
November 22, 2021	401 Request	Letter to Federal Consistency Coordinator, Washington State Department of Ecology (dated November 22, 2021)	Laura Boerner, Chief, Planning, Environmental, and Cultural Resources Branch, Corps
November 22, 2021	National Environmental Policy Act	<i>Draft Integrated Validation Report and Supplemental Environmental Impact Statement, Howard A. Hanson Dam Additional Water Storage Project, Section 902 Post Authorization Change Validation Study – Fish Passage</i> (includes Appendix A: Environmental Compliance; dated November 2021)	Corps
		Public Notice, Draft Integrated Validation Report and Supplemental Environmental Impact Statement, Howard A. Hanson Dam Additional Water	Corps

		Storage Project, Section 902 Post Authorization Change Validation Study – Fish Passage (dated November 19, 2021)	
November 22, 2021	Section 404 Evaluation	<i>Substantive Compliance with Section 404 of the Clean Water Act Howard A. Hanson Dam Fish Passage Facility, Part of the Additional Water Storage Project, Howard Hanson Dam, King County Washington</i> (undated)	Corps
December 21, 2021	Biological Opinion	<i>Biological Opinion on Howard Hanson Dam, Operations, and Maintenance, Green River (HUC 17110013) King County, Washington</i> (dated February 15, 2019)	National Marine Fisheries Service
February 4, 2022	Biological Opinion	<i>Biological Opinion on Howard A. Hanson Dam Continued Operations</i> (signed February 2, 2022)	U.S. Fish and Wildlife Service
February 15, 2022	Drawings	Sheets G-001 to G-009 and G101 to G120, Draft Feasibility Design (dated November 9, 2021)	Corps
February 18, 2022	Wood Management Plan	<i>Howard Hanson Dam Wood Management Plan</i> (revised July 2016)	Corps
February 22, 2022	E-mail	E-mail to Rebekah Padgett, Ecology, RE: #141142 Hanson Dam Fish Passage – DRAFT monitoring and adaptive mgmt (dated February 22, 2022)	Nancy Gleason, Corps
February 22, 2022	Adaptive Management Plan	<i>Draft Howard A. Hanson Dam Additional Water Storage Project, Section 902 Post Authorization Change Validation Study – Fish Passage, Updated Monitoring and Adaptive Management Plan Framework for Post-Construction Performance Criteria Monitoring</i> (dated February 2022)	Corps

March 9, 2022	E-mail	E-mail to Rebekah Padgett, Ecology, RE: Care and Diversion of Water Plan and Environmental Protection Plan (dated March 9, 2022)	Nancy Gleason, Corps
March 10, 2022	Geotechnical Report	<i>Draft Geotechnical Baseline Report for Howard Hanson Dam 95% Design of Juvenile Downstream Fish Passage Facility</i> , on file at U.S. Army Corps of Engineers, Seattle, WA. 379 pages. (dated 2006)	Corps
March 11, 2022	Drawings	Sheets C-122 and G-124, Draft Feasibility Design (dated November 9, 2021)  Figure 22 – Stilling Basin Geometry, Supports, Additional Features (dated March 2022)	Corps  Corps
March 11, 2022	E-mail	E-mail to Rebekah Padgett, Ecology, RE: #141142 Follow up to Hanson Dam fish passage meeting (dated March 11, 2022)	Nancy Gleason, Corps
March 11, 2022	E-mail	E-mail to Rebekah Padgett, Ecology RE: Water Quality Monitoring Plan (dated March 11, 2022)	Nancy Gleason, Corps
March 11, 2022	E-mail	E-mail to Rebekah Padgett, Ecology RE: Request for Extended Area of Mixing (dated March 11, 2022)	Nancy Gleason, Corps
March 14, 2022	Water Quality Monitoring Plan	<i>Draft Water Quality Monitoring Plan, Howard A. Hanson Dam – Additional Water Storage Project Fish Passage Facility, King County, Washington</i> (dated March 2022)	Corps
March 15, 2022	E-mail	E-mail to Rebekah Padgett, Ecology RE: Blasting Plan Contents (dated March 15, 2022)	Nancy Gleason, Corps
March 15, 2022	E-mail	E-mail to Rebekah Padgett, Ecology RE: Care and Diversion of	Nancy Gleason, Corps

		Water Plan (dated March 15, 2022)	
March 16, 2022	E-mail	E-mail to Rebekah Padgett, Ecology RE: Sand and Gravel Permit? (dated March 16, 2022)	Nancy Gleason, Corps

Issuance of this Section 401 Water Quality Certification for this proposal does not authorize the Corps to exceed applicable state water quality standards (Chapter 173-201A WAC), ground water quality standards (Chapter 173-200 WAC) or sediment quality standards (Chapter 173-204 WAC). Furthermore, nothing in this Section 401 Water Quality Certification absolves the Corps from liability for contamination and any subsequent cleanup of surface waters, ground waters, or sediments resulting from project construction or operations.

The following conditions will be strictly adhered to by the Corps.

**A. General Conditions**

1. In this WQC Order, the term “Applicant” shall mean the Corps and its agents, assignees, and contractors.
2. All submittals required by this WQC Order shall be sent to Ecology’s Headquarters Office, Attn: Federal Permit Manager, via e-mail to [fednotification@ecy.wa.gov](mailto:fednotification@ecy.wa.gov) and cc to [Rebekah.Padgett@ecy.wa.gov](mailto:Rebekah.Padgett@ecy.wa.gov). The submittals shall be identified with WQC Order #21015 and include the Applicant’s name, project name, project contact, and the contact phone number.
3. Work authorized by this WQC Order is limited to the work described in the WQC request package received by Ecology on November 22, 2021, and the supporting documentation identified in Table 1.
4. The Applicant shall keep copies of this WQC Order on the job site and readily available for reference by Ecology personnel, the construction superintendent, construction managers and lead workers, and state and local government inspectors.
5. The Applicant shall provide access to the project site and all mitigation sites upon request by Ecology personnel for site inspections, monitoring, and/or necessary data collection, to ensure that conditions of this WQC Order are being met.
6. Nothing in this WQC Order waives Ecology’s authority to issue additional orders if Ecology determines that further actions are necessary to implement the water quality laws of the state. Further, Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if additional impacts due to project construction or operation are identified (*e.g.*, violations of water quality standards, downstream erosion, etc.), or if additional conditions are necessary to further protect water quality.

7. In the event of changes or amendments to the state water quality, ground water quality, or sediment standards, or changes in or amendments to the state Water Pollution Control Act (RCW 90.48) or the federal Clean Water Act, Ecology may issue an amendment to this WQC Order to incorporate any such changes or amendments applicable to this project.
8. The Applicant shall ensure that all project engineers, contractors, and other workers at the project site with authority to direct work have read and understand relevant conditions of this WQC Order and all permits, approvals, and documents referenced in this WQC Order. The Applicant shall provide Ecology a signed statement (see Attachment A for an example) before construction begins.
9. This WQC Order does not authorize direct, indirect, permanent, or temporary impacts to waters of the state or related aquatic resources, except as specifically provided for in conditions of this WQC Order.
10. Failure of any person or entity to comply with the WQC Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the state's water quality standards.
11. The Applicant shall provide Ecology documentation for review and approval before undertaking any major changes to the proposed project that could significantly and adversely affect water quality, other than those project changes required by this WQC Order.
12. Nothing in this WQC Order waives Ecology's discretionary authority to issue additional Orders if Ecology determines that further actions are necessary to implement the water quality laws of the state.
13. This WQC Order will automatically transfer to a new owner or operator if:
  - a. A written agreement between the Applicant and new owner or operator with the specific transfer date of the WQC Order's obligations, coverage, and liability is submitted to Ecology per condition A.2.;
  - b. A copy of this WQC Order is provided to the new owner or operator; and
  - c. Ecology does not notify the new Applicant that a new WQC Order is required to complete the transfer.

## **B. Notification Requirements**

1. The following notification shall be made via phone or e-mail (e-mail is preferred) to Ecology's Federal Permit Manager via e-mail to [fednotification@ecy.wa.gov](mailto:fednotification@ecy.wa.gov) and cc to [Rebekah.Padgett@ecy.wa.gov](mailto:Rebekah.Padgett@ecy.wa.gov). Notifications shall be identified with WQC Order #21015, and include the Applicant name, project name, project location, project contact and the contact phone number.
  - a. Immediately following a violation of state water quality standards or when the project is out of compliance with any conditions of this WQC Order.



- b. At least ten (10) days prior to all pre-construction meetings
  - c. At least ten (10) days prior to conducting in-water work activities each year.
  - d. Within seven (7) days of completion of each in-water work window.
2. In addition to the phone or e-mail notification required under B.1.a. above, the Applicant shall submit a detailed written report to Ecology within five (5) days that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.
  3. If the project construction is not completed within 13 months of issuance of this WQC Order, the Applicant shall submit per Condition A2 a written construction status report and submit status reports every 12 months until construction and mitigation are completed.

### **C. Timing**

1. This WQC Order will expire on June 30, 2046, unless otherwise approved by Ecology.
2. The following in-water work window applies to the project unless otherwise approved by Ecology:
  - a. Work conducted below the ordinary high water line (OHWL) of the Green River (including Eagle Gorge Reservoir) shall be conducted between July 1 and September 30 of any year, unless otherwise approved by Ecology.
  - b. If the Applicant needs to work outside the in-water work window above, a written request shall be submitted to Ecology for approval at least seven (7) days prior to start of work.
  - c. Work completed in isolation within a cofferdam may be completed at any time of the year.

### **D. Water Quality Monitoring & Criteria**

1. This WQC Order does not authorize the Applicant to exceed applicable water quality standards beyond the limits established in Chapter 173-201A WAC.
2. This WQC Order does not authorize the Applicant to exceed applicable water quality standards beyond the limits established in WAC 173-201A-200(1)(g).
3. For in-water activities within fresh waters (including wetlands) turbidity shall not exceed 5 NTU over background when the background is 50 NTU or less; or a 10 percent increase in turbidity when the background turbidity is more than 50 NTU.
4. This WQC Order does not authorize the Applicant to exceed applicable turbidity standards beyond the limits established in Chapter 173-201A WAC below:
  - a. Temporary area of mixing for turbidity established within the state water quality standards for fresh waters (WAC 173-201A-200) is as follows:
    - i. For waters up to 10 cfs flow at the time of construction, the point of compliance shall be one hundred feet downstream from the activity causing the turbidity exceedance.

- ii. For waters above 10 cfs up to 100 cfs flow at the time of construction, the point of compliance shall be two hundred feet downstream of the activity causing the turbidity exceedance.
  - iii. For waters above 100 cfs flow at the time of construction, the point of compliance shall be three hundred feet downstream of the activity causing the turbidity exceedance.
  - iv. For projects working within or along lakes, ponds, wetlands, or other non-flowing waters, the point of compliance shall be at a radius of one hundred fifty feet from the activity causing the turbidity exceedance.
5. If water quality exceedances for turbidity are observed outside the point of compliance, work shall cease immediately and the Applicant or the contractor shall assess the cause of the water quality problem and take immediate action to stop, contain, and correct the problem and prevent further water quality turbidity exceedances.
  6. Visible turbidity anywhere beyond the temporary area of mixing (point of compliance) from the activity, shall be considered an exceedance of the standard.
  7. The Applicant shall revise the *Draft Water Quality Monitoring Plan, Howard A. Hanson Dam – Additional Water Storage Project Fish Passage Facility, King County, Washington (WQMP)* prepared by the Corps, dated March 2022, to include the information below and to be consistent with the conditions of this Order. A final Plan shall be submitted to Ecology per Condition A.2 **for review and approval** at least 60 days prior to beginning any work covered by this WQC Order.

At a minimum, the revised WQMP shall include:

- a. Description of any work below ordinary high water mark (OHWM), in water, and over water, both within and outside of a cofferdam (e.g., excavation, placement of rock or other material, installation of structures, construction or removal of cofferdams, grouting or tremie work, shoreline bank work, etc.). This will include specific dimensions (length, width, height/depth) of any and all structures, excavations, or fill areas, as well as volumes of material to be excavated or placed.
  - b. Drawings or plan set showing all project components below the OHWM or over water, with cross-sections as applicable.
  - c. Construction sequencing, methodology, and equipment to be utilized for activities described in Condition 8.a.
  - d. Best management practices and procedures to be implemented to protect water quality during activities described in Condition 8.a.
  - e. The names(s) and phone numbers (s) of the Pollution control inspector and the person responsible for on-site monitoring and reporting;
  - f. Contingencies during in-water work activities.
8. Monitoring results shall be submitted monthly to Ecology's Federal Permit Manager, per condition A.2.

9. Ecology may require the Applicant to provide mitigation and/or additional monitoring if the monitoring results indicate that the water quality standards have not been met.

## **E. Construction**

### General Conditions

1. All work in and near waters of the state shall be conducted to minimize turbidity, erosion, and other water quality impacts. Construction stormwater, sediment, and erosion control Best Management Practices (BMPs) suitable to prevent exceedances of state water quality standards shall be in place before starting maintenance and shall be maintained throughout the duration of the activity.
2. All clearing limits, stockpiles, staging areas, and trees to be preserved shall clearly be marked prior to commencing construction activities and maintained until all work is completed for each project.
3. No stockpiling or staging of materials shall occur at or below the OHWM of any waterbody.
4. The Applicant shall obtain and comply with the conditions of the Construction Stormwater General Permits (National Pollutant Discharge Elimination System - NPDES) issued for this project.
5. The Applicant shall obtain and comply with the conditions of the Sand and Gravel General Permit (National Pollutant Discharge Elimination System—NPDES and State Waste Discharge General Permit) issued for this project for operation of any on-site or portable concrete batch plant, asphalt batch plant, or rock crusher, if applicable.
6. Within the project limits<sup>1</sup> all environmentally sensitive areas including, but not limited to, wetlands, wetland buffers, shoreline riparian buffers and mitigation areas shall be fenced with high visibility construction fencing (HVF), or staked and flagged in areas of high wildlife use, prior to commencing construction activities. Construction activities include equipment staging, materials storage, and work vehicle parking. Note: This condition does not apply to activities such as pre-construction surveying and installing HVF and construction zone signage.
  - a. If the project will be constructed in stages<sup>2</sup> a detailed description and drawings of the stages shall be sent to Ecology for review at least 20 days prior to placing HVF.
  - b. Condition 5.a. shall apply to each stage.
  - c. All field staff shall be trained to recognize HVF, understand its purpose and properly install it in the appropriate locations.
  - d. HVF shall be maintained until all work is completed for each project or each stage of a staged project.
7. No petroleum products, fresh concrete, lime or concrete, chemicals, or other toxic or deleterious materials shall be allowed to enter waters of the state.

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<sup>1</sup> Project limits include mitigation sites, staging areas, borrow sources, and other sites developed or used to support project construction.

<sup>2</sup> A stage is part of a project that has been separated into at least two distinct areas to be built during separate timeframes.

8. If cast in place, wet concrete/grout shall be prevented from entering waters of the state. Forms for any concrete/grout structure shall be constructed to prevent leaching of wet concrete/grout. Impervious materials shall be placed over any exposed concrete/grout not lined with the forms that will come in contact with state waters. Forms and impervious materials shall remain in place until the concrete/grout is fully cured (i.e., inert).
9. Concrete delivery systems situated over water shall be inspected daily to prevent any discharges of concrete and/or slurry water into waters of the state.
10. Concrete process water shall not be allowed to enter waters of the state. Any process water/contact water shall be routed to a contained area for treatment and shall be disposed of at an upland location.
11. Project activities shall be conducted to minimize siltation of the riverbed, to the extent practicable.
12. Clean Fill Criteria: Applicant shall ensure that fill (soil, gravel, or other material) placed for the proposed project does not contain toxic materials in toxic amounts.
13. All construction debris, excess sediment, and other solid waste material shall be properly managed and disposed of in an upland disposal site approved by the appropriate regulatory authority.
14. Work within waters of the state shall be conducted in the dry or during periods of low flow to the extent practicable.
15. The removal of native bank line vegetation shall be limited to the minimum amount needed to construct the project.
16. All trees greater than 4 inches diameter breast height (DBH) shall be kept in at least 20-foot segments and placed in the low flow of the Green River.
17. If contamination is discovered, it must be reported to Ecology per Condition A2. Contamination soils or water may require special handling and/or disposal to avoid escaping dust, soil erosion, and water pollution during construction activities.
18. During excavation, each pass with the bucket shall be complete.
19. When removing material (e.g., sand, gravel, riverbed), the bucket shall be lifted slowly through the water column and paused at the water surface in order to minimize turbidity.
20. When placing material (e.g., sand, gravel, riverbed), the bucket shall be set as close as possible to the substrate surface, and the bucket shall be opened slowly in order to minimize turbidity.
21. Riprap shall be placed individually into the water and quarry spalls placed in small quantities in order to minimize turbidity.

22. Work in or near the water that may affect fish migration, spawning, or rearing shall cease immediately upon a determination by Ecology that fisheries resources may be adversely affected.
23. All temporary cofferdams and access roads shall be removed at the end of the project and the riverbed restored.
24. Construction shall be limited to daylight hours whenever feasible in order to avoid attracting fish to light at night and potentially causing impacts to coastal resources. If unavoidable, low-intensity construction lighting with shields to prevent light from reaching the water surface and reduce effects on aquatic species shall be utilized.
25. The Applicant shall prepare and submit an Environmental Protection Plan to the Federal Permit per Condition A2 prior to start of construction.

#### Equipment & Maintenance

26. Staging areas will be located a minimum of 50 feet and, where practical, 200 feet, from waters of the state including wetlands, unless otherwise requested and authorized by Ecology.
27. Equipment used for this project shall be free of external petroleum-based products while used around the waters of the state, including wetlands. Accumulation of soils or debris shall be removed from the drive mechanisms (wheels, tires, tracks, etc.) and the undercarriage of equipment prior to its use around waters of the state, including wetlands.
28. All equipment being used below the ordinary high water mark shall utilize biodegradable hydraulic fluid.
29. No equipment shall enter, operate, be stored or parked within any sensitive area except as specifically provided for in this WQC Order.
30. Machinery and equipment used during construction shall be serviced, fueled, and maintained upland, unless otherwise approved by Ecology, in order to prevent contamination to any surface water.
31. Appropriate measures to prevent the transport and introduction of aquatic invasive species shall be implemented, including thoroughly cleaning all equipment and gear before arriving and leaving the job site and properly disposing of all water and chemicals utilized to clean gear and equipment in order to protect state waters from invasive species.
32. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.

33. Wash water containing oils, grease, or other hazardous materials resulting from washing of equipment or working areas shall not be discharged into state waters. The Applicant shall set up a designated area for washing down equipment.
34. Temporary cofferdams, bladder dams, sandbag dams, floating turbidity curtains, and bypasses used to divert water around the work area shall be in place prior to initiation of work below the OHWM. These shall be properly deployed and maintained in order to minimize turbidity and re-suspension of sediment.
35. A separate area shall be set aside, which does not have any possibility of draining to surface waters, for the wash-out of concrete delivery trucks, pumping equipment, and tools.
36. Barges or floating construction platforms shall be swept, as necessary, and kept free of material that could be blown into water.
37. No return water is allowed to discharge from the barge(s) or floating construction platforms into waters of the state.

Rock Blasting Conditions:

38. The Applicant shall prepare and submit a Blasting Plan **for Ecology review and approval** per Condition A.2 at least 60 days prior to beginning of any rock blasting activity that may impact waters of the state. At a minimum, the Blasting Plan shall include:
  - a. Description of rock blasting activities within cofferdams or adjacent to the Green River or reservoir;
  - b. Best management practices to protect water quality;
  - c. Methods for preventing spills or losses of explosives, drilling fluids, oil, or any other pollutants that could affect waters of the state;
  - d. Work windows and timing restrictions for safety; and
  - e. Monitoring of blast effects.
39. Blasting shall occur upland or in the dry within cofferdams and shall be conducted in a controlled manner.

Dewatering

40. The Applicant shall prepare and submit a Care and Diversion of Water Plan **for Ecology review and approval** per Condition A.2 at least 60 days prior to beginning work for each activity below the ordinary high water line (OHWL), in-water and over-water. At a minimum, the Care and Diversion of Water Plan shall include:
  - a. Description of any in-water work that takes place in the river or reservoir, both within and outside of any permanent or temporary cofferdams (e.g., excavation, placement of rock or other material, installation of structures, construction or removal of cofferdams, shoreline bank work, etc.);
  - b. Construction sequencing, timing, methodology, and equipment to be utilized for in-water activities;

- c. Description of all permanent or temporary cofferdam systems to be utilized;
  - d. Description and design of any bypass or temporary diversions of water around in-water activities;
  - e. Monitoring plan for post-treatment effluent to ensure treatment system effectiveness. The plan shall include parameters of concern, frequency of testing, and reporting;
  - f. Descriptions of systems for management, treatment, and discharge/disposal of dewatering water and dewatered solids, water pumped from cofferdams and any process water from concrete or grout activities. This includes capacity of the systems and appropriateness of the selected treatment technology for the pollutants of concern (turbidity, pH, and petroleum);
  - g. Drawings showing location, size, and construction details for water diversion and handling features; and
  - h. Identify contingencies that will be implemented to handle dewatering water if it does not meet standards for discharge to surface waters.
41. Upon completion of the project construction, all material used in construction of temporary cofferdams or bypasses shall be removed from the site and the site returned to pre-project or improved conditions.
42. To minimize sediment releases, re-introduction of water into the isolated work area shall be done gradually, and at a rate not higher than the normal flow.
43. Turbid de-watering water associated with in-water work shall not be discharged directly to waters of the state, including wetlands. Turbid de-watering water shall be routed to an upland area for on-site or off-site settling.
44. Clean de-watering water associated with in-water work that has been tested and confirmed to meet water quality standards may be discharged directly to waters of the state including wetlands. The discharge outfall method shall be designed and operated so as not to cause erosion or scour in the stream channel, banks, or vegetation.
45. Dewatering water may not be discharged to the Green River or conveyed to surface waters unless it meets Surface Water Quality Standards (Chapter 173-201A WAC) at the point of discharge, unless otherwise authorized by this WQC Order.
46. The dewatering outfall or method of discharge shall be designed and operated so as not to cause erosion or scour in state waters, banks, or vegetation.
47. All equipment associated with dewatering activities shall be properly operated and maintained.

Bank Stabilization

48. Placement of rip-rap shall be conducted in compliance with water quality standards for turbidity.
49. Bank sloping shall be accomplished in a manner that avoids release of overburden material into the water. Overburden material resulting from the project shall be deposited upland so it will not re-enter the water.

50. Bank protection work shall be minimized to the extent practicable.

#### **F. Riparian Planting and Monitoring Conditions**

1. The Applicant shall prepare and submit a Riparian Planting and Monitoring Plan **for Ecology review and approval** per Condition A.2 at least 60 days prior to disturbance of any riparian vegetation within the project site. At a minimum, the Riparian Planting and Monitoring Plan shall include:
  - a. Locations and description of any riparian vegetation, including quantities, to be cut down or fully removed;
  - b. Locations of riparian planting areas in relation to the impact areas;
  - c. Native vegetation planting list;
  - d. Mitigation ratio (e.g., 5:1 to account for temporal impacts and goal of No Net Loss);
  - e. Planting plan showing quantities, locations, and spacing of plants proposed for installation;
  - f. Timing of planting;
  - g. Goals, objectives, and performance standards;
  - h. Monitoring plan, including frequency (e.g., 10 years for trees); and
  - i. Contingencies if performance standards are not being met.
2. The Applicant shall submit an As-Built Report per Condition A2 within 90 days of completion of planting, describing any changes from the approved Riparian Planting and Monitoring Plan, and including photos.
3. The Applicant shall submit monitoring reports annually, by March 31 following each monitoring year, to Ecology per Condition A.2 documenting site conditions. The reports shall include monitoring results for the planting area and photos. The reports shall include a discussion on whether the Riparian Planting and Monitoring Plan's goals, objectives, or performance standards are being met.
4. If the Applicant has not met all conditions, including performance standards for the planting site(s) at the end of the monitoring period, Ecology may require additional monitoring, additional mitigation, or both.

#### **G. Post-Construction Monitoring and Adaptive Management**

1. A Monitoring and Adaptive Management Plan (MAMP) shall be developed and implemented for the project. The Applicant shall submit the MAMP **for Ecology review and approval** per Condition A.2. The MAMP **must be submitted at least 60 days prior** to the start of operations of the new fish passage facility and shall meet the following requirements:
  - a. The MAMP shall be developed based on the *Draft Howard A. Hanson Dam Additional Water Storage Project, Section 902 Post Authorization Change Validation Study – Fish Passage*,



*Updated Monitoring and Adaptive Management Plan Framework for Post-Construction Performance Criteria Monitoring*, prepared by the Corps, dated February 2022.

- b. Include, at a minimum, the following information:
  - i. Performance criteria (e.g., juvenile fish project passage survival), metrics, and methods to determine whether performance criteria are being met;
  - ii. Monitoring studies to be completed (e.g., juvenile fish migration and survival, as well as sediment accumulation in the plunge pool and any other structures installed in the river and effects on sedimentation and erosion); and
  - iii. Adaptive management proposed if performance criteria are not met.
2. The Applicant shall submit monitoring reports to Ecology per Condition A.2 documenting the results of post-construction monitoring activities and any adaptive management actions taken as a result of monitoring for up to 15 years, as required under the MAMP, or otherwise approved by Ecology. Reports shall be submitted by March 31 following each monitoring year.
3. A Final Monitoring Report shall be submitted to Ecology per Condition A.2 upon completion of monitoring activities. This Report shall summarize the data collected, how the structure complies with the required juvenile passage and survivability Biological Opinion and biological requirements (98%, 95% and 75%) and any adaptive management actions taken as a result of monitoring.
4. Any maintenance activities to remove sedimentation from the stilling basin, plunge pool, and/or other in-water structures installed as part of this project is not covered under this WQC Order and would require separate authorization from Ecology.

#### **H. Emergency/Contingency Measures**

1. The Applicant shall develop and implement a spill prevention and containment plan for all aspects of this project.
2. The Applicant shall have adequate and appropriate spill response and cleanup materials available on site to respond to any release of petroleum products or any other material into waters of the state.
3. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.
4. Work causing distressed or dying fish and discharges of oil, fuel, or chemicals into state waters or onto land with a potential for entry into state waters is prohibited. If such work, conditions, or discharges occur, the Applicant shall notify Ecology's Federal Permit Manager per condition A2 and immediately take the following actions:
  - a. Cease operations at the location of the non-compliance.
  - b. Assess the cause of the water quality problem and take appropriate measures to correct the problem and prevent further environmental damage.

- c. In the event of a discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of any spilled material and used cleanup materials.
  - d. Immediately notify Ecology's Regional Spill Response Office and the Washington State Department of Fish & Wildlife with the nature and details of the problem, any actions taken to correct the problem, and any proposed changes in operation to prevent further problems.
  - e. Immediately notify the National Response Center at 1-800-424-8802, for actual spills to water only.
5. Notify Ecology's Regional Spill Response Office immediately if chemical containers (e.g. drums) are discovered on-site or any conditions present indicating disposal or burial of chemicals on-site that may impact surface water or ground water.

### Your right to appeal

You have a right to appeal this WQC Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this WQC Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do all of the following within 30 days of the date of receipt of this WQC Order:

- File your appeal and a copy of this WQC Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this WQC Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Address and location information.

### Filing an appeal with the PCHB

**Mailing Address:**

Pollution Control Hearings Board  
PO Box 40903  
Olympia, WA 98504-0903

**Street Address:**

Pollution Control Hearings Board  
1111 Israel RD SW  
STE 301  
Tumwater, WA 98501

### Serving a copy of the appeal on Ecology:

**Mailing Address:**

Department of Ecology  
Attn: Appeals Processing Desk  
PO Box 47608 Olympia, WA 98504-7608

**Street Address:**

Department of Ecology  
Attn: Appeals Processing Desk  
300 Desmond Drive SE  
Lacey, WA 98503

## CONTACT INFORMATION

Please direct all questions about this WQC Order to:

Rebekah Padgett  
Department of Ecology  
(425) 365-6571  
[Rebekah.Padgett@ecy.wa.gov](mailto:Rebekah.Padgett@ecy.wa.gov)

## MORE INFORMATION

### Pollution Control Hearings Board Website

<http://www.eluho.wa.gov/Board/PCHB>

### Chapter 43.21B RCW - Environmental and Land Use Hearings Office – Pollution Control Hearings Board

<http://app.leg.wa.gov/RCW/default.aspx?cite=43.21B>

### Chapter 371-08 WAC – Practice And Procedure

<http://app.leg.wa.gov/WAC/default.aspx?cite=371-08>

### Chapter 34.05 RCW – Administrative Procedure Act

<http://app.leg.wa.gov/RCW/default.aspx?cite=34.05>

### Chapter 90.48 RCW – Water Pollution Control

<http://app.leg.wa.gov/RCW/default.aspx?cite=90.48>

### Chapter 173.204 WAC – Sediment Management Standards

<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-204>

### Chapter 173-200 WAC – Water Quality Standards for Ground Waters of the State of Washington

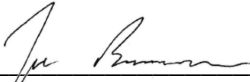
<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-200>

### Chapter 173-201A WAC – Water Quality Standards for Surface Waters of the State of Washington

<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A>

## SIGNATURE

Dated this 23rd day of March 2022 at the Department of Ecology, Shoreline, Washington.



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Joe Burcar, Section Manager  
Northwest Regional Office  
Shorelands and Environmental Assistance Program

**Attachment A**

**Statement of Understanding  
Water Quality Certification Conditions**

U.S. Army Corps of Engineers, Seattle District  
Howard A. Hanson Dam Additional Water Supply Project Phase 1 Fish Passage Facility Water Quality  
Certification WQC Order #21015

As the Applicant for the Howard A. Hanson Dam Additional Water Supply Project Phase 1 Fish Passage Facility, I have read and understand the conditions of Washington State Department of Ecology WQC Order #21015, and any permits, plans, documents, and approvals referenced in the WQC Order. I have and will continue to ensure that all project engineers, contractors, and other workers at the project site with authority to direct work have read and understand the conditions of this WQC Order and any permits, plans, documents, and approvals referenced in the WQC Order.

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
Title Phone

\_\_\_\_\_  
Company