



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

July 11, 2022

U.S. Army Corps of Engineers, Seattle District
ATTN: Laura Buerner
PO Box 3755
Seattle, WA 98124

Re: Amendment to 401 Water Quality Certification **Order No. 13975**,
Mud Mountain Dam Upstream Fish Passage Facility and Barrier Replacement Project,
White River, City of Buckley and King County, Washington

Dear Ms. Buerner:

Enclosed is a second amendment (Amendment) to Water Quality Certification Order No. 13975, issued on February 8, 2017 and amended on June 21, 2018, for the above project. We have also included a strikeout version of the Water Quality Certification that reflects the changes made. All other conditions of Water Quality Certification No. 13975 remain in effect.

The purpose of this Amendment is to include Phase 3 activities and associated water quality monitoring.

If you have any questions, please contact Kerry Carroll at (360) 407-7503. The enclosed Amendment may be appealed by following the procedures described in the Amendment.

Sincerely,

Brenden McFarland, manager
Environmental Review and Transportation Section
Shorelands and Environmental Assistance Program

E-cc: Vanessa Pepi, U.S. Army Corps of Engineers, Vanessa.E.Pepi@usace.army.mil
Scott Pozarycki, U.S. Army Corps of Engineers, Scott.V.Pozarycki@usace.army.mil
Gabriel Madel, Washington Department of Fish and Wildlife, Gabriel.Madel@dfw.wa
Miles Penk, Washington Department of Fish and Wildlife, Miles.Penk@dfw.wa
Laura Casey, King County Department of Permitting & Environmental Review,
Laura.Casey@kingcounty.gov

Mud Mountain Dam Upstream Fish Passage Facility and Barrier Replacement Project

Order No. 13975

July 11, 2022

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Emily Terrell, City of Buckley Building & Planning Department,

ETerrell@cityofbuckley.com

Ryan McReynolds, US Fish and Wildlife Service, Ryan_Mcreynolds@fws.gov

Molly Good, U.S. Fish and Wildlife Service, Molly_Good@fws.gov

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Laura Swaim, Muckleshoot Indian Tribe, Laura.Swaim@muckleshoot.nsn.us

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Henry Chen, Cascade Water Alliance, HChen@cascadewater.org

Kerry Carroll-Ecology HQ

Loree' Randall – Ecology HQ

ecyrefedpermits@ecy.wa.gov



IN THE MATTER OF GRANTING A WATER) WQC Order No. 13975
QUALITY CERTIFICATION TO US Army) Second Amendment, Mud Mountain Dam
Corps of Engineers, Seattle District) Upstream Fish Passage Facility and Barrier
 In accordance with 33U.S.C. 1341) Replacement Project, White River,
 (FWPCA §401), RCW 90.48.120,RCW) City of Buckley and King County
 90.48.260 and Chapter 173-201A WAC) Washington

U.S. Army Corps of Engineers, Seattle District
 ATTN: Laura Buerner
 PO Box 3755
 Seattle, WA 98124

On February 8, 2017, the Washington Department of Ecology (Ecology) issued a 401 Water Quality Certification (WQC) to U.S. Army Corps of Engineers, Seattle District for the above-referenced project pursuant to the provisions of 33 U.S.C. 1341 (FWPCA § 401).

Ecology received a request on March 18, 2022 to include Phase 3 construction activities and associated water quality monitoring in the WQC. The request also asked Ecology to allow the 1-mile mixing zone, that was granted in the first amendment for similar activities, be applied to the installation and demobilization of cofferdams and a supersack cofferdam for decommissioning of the old Buckley facility and construction of a new retaining wall, sluiceway, and water intake area for CWA for Phase 3.

Order No. 13975 dated February 8, 2017 is hereby amended as follows:

I. Page 1, second paragraph, which reads:

The proposal includes replacement of the existing barrier structure with a new operable structure, construction of a new fish trap-and-haul and support facility on the right bank, improvement of roads and levees adjacent to the new facility, upgrade of the road leading to the fish release site, and upgrade of the fish release facilities.

Is replaced with:

The proposal includes replacement of the existing barrier structure with a new operable structure, construction of a new fish trap-and-haul and support facility on the right bank, improvement of roads and levees adjacent to the new facility, upgrade of the road leading to the fish release site, and upgrade of the fish release facilities. Also, after completion of a proof of concept period and redesign of the Archimedes Screw Lifts at the new fish trap-and-haul facility, decommissioning and demolition of portions of the old trap-and-haul (Buckley) facility and improvements to Cascade Water Alliance’s (CWA) intake will be constructed.

II. Condition number B2 added a third bullet and a sentence in italics in the last paragraph, which reads:

- *Mixing Zone Request Addendum prepared by U.S. Army Corps of Engineers, Seattle District, dated June 19, 2018 be applied to the installation and demobilization of cofferdams and a supersack cofferdam for decommissioning of the old Buckley facility and construction of a new retaining wall, sluiceway, and water intake area for CWA as requested on March 18, 2022.*

For all activities occurring in the dry below OHWM (e.g., within a cofferdam) and all activities not specified in the Mixing Zone Request or Mixing Zone Request Addendum or *Mixing Zone Request dated March 18, 2022*, the standard 300-foot area of mixing applies.

III. Condition number B3, which reads:

Ecology has reviewed the *Draft Water Quality Monitoring Plan, Mud Mountain Dam Barrier Upstream Fish Passage Facility and Barrier Replacement, Buckley, Washington, 2016-2020* (hereafter called the "Water Quality Monitoring Plan"), prepared by U.S. Army Corps of Engineers, Seattle District, dated October 2016, the Applicant shall submit a revised Water Quality Monitoring Plan that includes changes and additions to the current Plan, as modified by this Order. The revised Plan shall be submitted per Condition A2 at least 30 days prior to start of in-water work. No work below OHWM may begin until Ecology approves the revised Plan.

Is replaced with:

Ecology has reviewed the *Draft Water Quality Monitoring Plan, Mud Mountain Dam Barrier Upstream Fish Passage Facility and Barrier Replacement, Buckley, Washington, 2016-2020 and 2022-2024* (hereafter called the "Water Quality Monitoring Plan"), prepared by U.S. Army Corps of Engineers, Seattle District, dated October 2016, revised July 30, 2019, revised December 15, 2021. The Applicant shall submit a revised Water Quality Monitoring Plan that includes any changes and/or additions to the current Plan, as modified by this Order and Order amendments. The revised Plan shall be submitted per Condition A2 at least 30 days prior to start of in-water work. No work below OHWM may begin until Ecology approves the revised Plan.

IV. Condition number D19, which reads:

A Care and Diversion Plan shall be developed and implemented. The Care and Diversion Plan shall address the construction schedule and sequencing for in-water work, including a narrative for how the activities will be completed (e.g., techniques and BMPs).

The Applicant shall submit the Care and Diversion Plan for Ecology review and approval per Condition A2 at least 30 days prior to the start of in-water work.

Is replaced with:

A Care and Diversion Plan shall be developed and implemented. The Care and Diversion Plan shall address the construction schedule and sequencing for each in-water work phase, including a narrative for how the activities will be completed (e.g., techniques and BMPs).

The Applicant shall submit the Care and Diversion Plan and any updates for Ecology review and approval per Condition A2 at least 30 days prior to the start of in-water work.

V. Condition G3 is added, which reads:

Phase 3 construction activities shall not start until the Archimedes Screw Lifts (ASL's) have been re-designed, replaced, tested, commissioned, and the Army Corps of Engineers notifies Ecology (in writing) that they have met this condition, unless otherwise approved by Ecology.

VI. Condition number H1, which reads:

Applicant shall provide notice to Ecology's 401/CZM Federal Permit Manager:

- At least three (3) days prior to the start of construction.
- Within 14 days after completion of construction at the project site.

Notification, referencing Order No. 13975, can take place by telephone to (425) 649-7129 or (425) 649-7000, fax to (425) 649-7098, or in writing.

Is replaced with:

Applicant shall provide notice to Ecology's 401/CZM Federal Permit Manager:

- At least three (3) days prior to the start of each phase of construction.
- Within 14 days after completion of construction at the project site.

Notification, referencing Order No. 13975 shall be sent in writing to ecyrefedpermits@ecy.wa.gov.

No other conditions or requirements of the above referenced Order are affected by this amendment.

Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if it appears necessary to further protect the public interest.

Failure to comply with this amended Order may result in the issuance of civil penalties or other actions whether administrative or judicial, to enforce the terms of this amended Order.

YOUR RIGHT TO APPEAL

You have a right to appeal this Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this 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 Order:

- File your appeal and a copy of this 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 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 Order to:

Kerry Carroll
Department of Ecology
Headquarters
PO Box 47600
360-407-7503
Kerry.carroll@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>

SIGNATURE

Dated this 11 day of July 2022 at the Department of Ecology, Olympia Washington.



Brenden McFarland, Section Manager
Environmental Review & Transportation Section,
Shorelands and Environmental Assistance

This document shows the conditions that have been amended since the original Order was issued on February 8, 2017. Therefore it is not the official certification and should only be used for informational purposes.

June 21, 2018 First Amendment changes are reflected in Red

July 11, 2022 Second Amendment changes are reflected in Blue

IN THE MATTER OF GRANTING A WATER)	ORDER No. 13975
QUALITY CERTIFICATION TO)	Mud Mountain Dam Upstream Fish Passage
U.S. Army Corps of Engineers,)	Facility and Barrier Replacement Project;
Seattle District)	White River, City of Buckley and
in accordance with 33 U.S.C. 1341)	King County, Washington.
(FWPCA § 401), RCW 90.48.120, RCW)	
90.48.260 and Chapter 173-201A WAC)	

TO: U.S. Army Corps of Engineers, Seattle District
Attn: Evan Lewis
PO Box 3755
Seattle, WA 98124

On February 5, 2016, U.S. Army Corps of Engineers, Seattle District (Corps) submitted a request to the Department of Ecology (Ecology) for a Section 401 Water Quality Certification. A revised application was submitted on February 8, 2016. A public notice regarding the request was distributed by Ecology for the above-referenced project pursuant to the provisions of Chapter 173-225 WAC on February 10, 2016. An addendum to the application was submitted on October 14, 2016.

The proposal includes replacement of the existing barrier structure with a new operable structure, construction of a new fish trap-and-haul and support facility on the right bank, improvement of roads and levees adjacent to the new facility, upgrade of the road leading to the fish release site, and upgrade of the fish release facilities. Also, after completion of a proof of concept period and redesign of the Archimedes Screw Lifts at the new fish trap-and-haul facility, decommissioning and demolition of portions of the old trap-and-haul (Buckley) facility and improvements to Cascade Water Alliance's (CWA) intake will be constructed.

Note that all impacts occurring on Muckleshoot Indian Tribe Tribal Trust Lands are reviewed and addressed by the U.S. Environmental Protection Agency (EPA) and are not covered under this Section 401 Water Quality Certification.

The project is located at Mud Mountain Dam White River Barrier Structure, River Mile 24.3 on the White River, City of Buckley and King County, Washington, Section 2, T. 19 N., R. 6E., WRIA 10. The release site location is located approximately 5 miles upstream of Mud Mountain Dam on the right bank of the White River.

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AUTHORITIES:

In exercising authority under 33 U.S.C. § 1341, RCW 90.48.120, and RCW 90.48.260, Ecology has examined this application 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 (FWPCA §§ 301, 302, 303, 306 and 307);
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.

WATER QUALITY CERTIFICATION CONDITIONS:

Through issuance of this Order, Ecology certifies that it has reasonable assurance that the activity as proposed and conditioned will be conducted in a manner that will meet the applicable water quality standards and other appropriate requirements of state law. In view of the foregoing and in accordance with 33 U.S.C. § 1341, RCW 90.48.120, RCW 90.48.260 Chapter 173-200 WAC and Chapter 173-201A WAC, water quality certification is granted to the Applicant subject to the conditions within this Order.

Certification of this proposal does not authorize the Applicant to exceed applicable state water quality standards (Chapter 173-201A WAC), ground water standards (Chapter 173-200 WAC) or sediment quality standards (Chapter 173-204 WAC). Furthermore, nothing in this certification shall absolve the Applicant from liability for contamination and any subsequent cleanup of surface waters, ground waters or sediments occurring as a result of project construction or operations.

A. General Conditions:

- A1. For purposes of this Order, the term "Applicant" shall mean U.S. Army Corps of Engineers, Seattle District and its agents, assignees and contractors.
- A2. For purposes of this Order, all submittals required by its conditions shall be sent to Ecology's Northwest Regional Office, Attn: 401/CZM Federal Permit Manager, 3190 160th Avenue SE, Bellevue, WA 98008-5452. Any submittals shall reference Order No. 13975.

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- A3. Work authorized by this Order is limited to the work described in the JARPA received by Ecology on February 8, 2016, and the Addendum received on October 14, 2016. The Applicant must reapply with an updated application if the information contained in the JARPA and addendum is voided by subsequent changes to the project not authorized by this Order.
- A4. Within 30 days of receipt of updated information, Ecology will determine if the revised project requires a new Section 401 Water Quality Certification and public notice or if a modification/amendment to this Order is required.
- A5. Copies of this Order shall be kept 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.
- A6. The Applicant shall provide access to the project site and all mitigation sites upon request by Ecology personnel for site inspections, monitoring, necessary data collection, and/or to ensure that conditions of this Order are being met.
- A7. Nothing in this 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.
- A8. The Applicant shall ensure that all appropriate project engineers and contractors at the project site have read and understand relevant conditions of this Order and all permits, approvals, and documents referenced in this Order. The Applicant shall provide Ecology a signed statement (see Attachment A for an example) from each project engineer and contractor that they have read and understand the conditions of this Order and the above-referenced permits, plans, documents and approvals. These statements shall be provided to Ecology before construction begins at the project or mitigation sites.
- A9. This Order does not authorize direct, indirect, permanent, or temporary impacts to waters of the state (including wetlands) or related aquatic resources, except as specifically provided for in conditions of this Order.
- A10. Failure of any person or entity to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce its terms.

B. Water Quality Conditions:

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- B1. This Order does not authorize exceedances of water quality standards beyond the limits established in WAC 173-201A, except as specifically modified by this Order in Condition B2 below.
- B2. ~~Per the Request for Water Quality Mixing Zone, Mud Mountain Dam Barrier Upstream Fish Passage Facility and Barrier Replacement, Buckley, Washington, 2016-2020 (hereafter called "Mixing Zone Request"), prepared by U.S. Army Corps of Engineers, Seattle District, dated October 2016,~~ Ecology is authorizing a temporary turbidity mixing zone of ~~1,000 feet~~ 1 mile from the edge of the in-water activities only, per the following requests:-
- ~~Request for Water Quality Mixing Zone, Mud Mountain Dam Barrier Upstream Fish Passage Facility and Barrier Replacement, Buckley, Washington, 2016-2020 (hereafter called "Mixing Zone Request"), prepared by U.S. Army Corps of Engineers, Seattle District, dated October 2016; and~~
 - ~~Request for Changing Point of Compliance for Activities Covered by the Extended Mixing Zone in WQC No. 13975, (hereafter called "Mixing Zone Request Addendum"), prepared by U.S. Army Corps of Engineers, Seattle District, dated June 19, 2018.~~
 - ~~Mixing Zone Request Addendum prepared by U.S. Army Corps of Engineers, Seattle District, dated June 19, 2018 be applied to similar Phase 3 activities, (i.e., the installation and demobilization of cofferdams and a supersack cofferdam for decommissioning of the old Buckley facility and construction of a new retaining wall, sluiceway, and water intake area for CWA) as requested on March 18, 2022.~~

For all activities occurring in the dry below OHWM (e.g., within a cofferdam) and all activities not specified in the ~~Mixing Zone Request or Mixing Zone Request Addendum or Mixing Zone Request dated March 18, 2022~~, the standard 300-foot area of mixing applies.

- B3. Ecology has reviewed the *Draft Water Quality Monitoring Plan, Mud Mountain Dam Barrier Upstream Fish Passage Facility and Barrier Replacement, Buckley, Washington, 2016-2020 and 2022-2024* (hereafter called the "Water Quality Monitoring Plan"), prepared by U.S. Army Corps of Engineers, Seattle District, dated October 2016, revised July 30, 2019, revised December 15, 2021. The Applicant shall submit a revised Water Quality Monitoring Plan that includes any changes and/or additions to the current Plan, as modified by this Order and Order amendments. The revised Plan shall be submitted

per Condition A2 at least 30 days prior to start of in-water work. No work below OHWM may begin until Ecology approves the revised Plan.

- B4. If further changes to the Water Quality Monitoring Plan are proposed through the duration of this Order, the Applicant shall submit them to Ecology for review and approval (see A2) prior to implementation. Following Ecology's approval, the Applicant shall implement the approved, revised Plan.
- B5. If monitoring results demonstrate that the applicable water quality standards or project performance standards are not being met, Ecology may require additional monitoring and/or mitigation.
- B6. Visual monitoring for turbidity and sheen shall be conducted continuously throughout the project area during all work below OHWM.
- B7. Location of turbidity samples: Turbidity shall be sampled for this project at 300 feet downstream from the edge of the in-water activity for all work below OHWM. Background and point of compliance sample locations for each in-water activity (levee, barrier, and release site) need to be identified.
- Turbidity also shall be sampled at additional downstream locations for any activities authorized for an extended area of mixing per Condition B2, as approved by Ecology.
- B8. Sampling for turbidity is to be accomplished using a turbid meter properly calibrated according to the operator's manual.
- B9. Background samples shall be collected at the same frequency as the point of compliance samples.
- B10. Notification of exceedances that are detected through water quality sampling shall be made to Ecology within 24 hours of occurrence. Notification shall be made with reference to Order No. 13975, Attn: 401/CZM Federal Permit Manager, by telephone at (425) 649-7129 or (425) 649-7000, or by fax to (425) 649-7098. The Applicant shall, at a minimum, provide Ecology with the following information:
- i. A description of the nature and cause of exceedance.
 - ii. The period of non-compliance, including exact dates, duration, and times and/or the anticipated time when the Applicant will return to compliance.

- iii. The steps taken, or to be taken, to reduce, eliminate, and prevent recurrence of the non-compliance.
 - iv. In addition, within five (5) days after notification of an exceedance, the Applicant shall submit a written report to Ecology that describes the nature of the exceedance, turbidity results and location, photographs, and any other pertinent information.
- B11. Sampling for pH is to be accomplished using a pH meter properly calibrated according to the operator's manual and shall be conducted during pouring of any concrete and until concrete is fully cured (i.e., inert).

C. Dewatering Conditions:

- C1. A Dewatering Plan shall be developed and implemented. The Dewatering Plan shall address dewatering activities, water pumped from cofferdams and wells, and any other upland or in-water activities that are similar to dewatering activities.
- C2. The Applicant shall submit the Dewatering Plan for Ecology review and approval per Condition A2 at least 30 days prior to the start of in-water work.

The Plan shall include the following minimum requirements associated with the handling, treatment, and discharge/disposal of the dewatering water and dewatered solids:

- a. Handling protocols for dewatering water and dewatered solids, including containment and transport as applicable.
- b. Treatment system description, including appropriateness of the selected treatment technology for the pollutants of concern (turbidity, pH, and petroleum). Dewatering water may not be discharged to the White River or conveyed to surface waters unless it meets Surface Water Quality Standards (Chapter 173-201A WAC) at the point of discharge for pollutants of concern.
- c. Monitoring plan for post-treatment effluent to ensure treatment system effectiveness. The plan shall include parameters of concern, frequency of testing, and reporting.
- d. Discharge and disposal plan for dewatering water. The method of discharge shall be designed and operated so as not to cause erosion or scour in state waters, banks, or vegetation.

- e. Disposal plan for dewatered solids.
- f. Identify contingencies that will be implemented to handle dewatering water if it does not meet standards for discharge to surface waters.

All equipment associated with dewatering activities shall be properly operated and maintained.

D. Conditions for Construction Activities:

Upland Conditions:

- D1. Applicant shall obtain and comply with a Construction Stormwater General Permit for this project.
- D2. Machinery and equipment (including pumps and generators) used during construction shall be serviced, fueled, and maintained upland, at least 100 feet from state waters, unless otherwise approved by Ecology, in order to prevent contamination to any surface water.
- D3. Wash water containing oils, grease, or other hazardous materials resulting from wash down of equipment or working areas shall be contained for proper disposal, and shall not be discharged into state waters or storm drains.
- D4. Equipment used for this project shall be free of external petroleum-based products while working in or around state waters.
- D5. The Applicant shall use biodegradable hydraulic fluids for all equipment working below OHWM.
- D6. Accumulation of soils or debris shall be removed from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to its working in or adjacent to state waters.
- D7. Equipment such as track hoes, backhoes, bulldozers, and bobcats shall remain outside of flowing water, to the extent practicable.
- D8. The Applicant shall not use wood treated with oil-type preservative (creosote, pentachlorophenol) in any hydraulic project. Wood treated with waterborne preservative chemicals (ACZA, ACQ) may be used if the Western Wood Preservers Institute has approved the waterborne chemical for use in the aquatic environment.

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- D9. Work shall be completed in the dry whenever possible.
- D10. All construction debris shall be properly disposed of on land so that it cannot enter a waterway or cause water quality degradation to state waters.
- D11. The Applicant shall limit the removal of native bank line vegetation to the minimum amount needed to construct the project.
- D12. The Applicant shall complete vegetation replanting during the first dormant season (late fall through late winter) after project completion. Plantings shall be maintained for at least 3 years in order to ensure survival of at least 80 percent of the plantings. Failure to meet 80 percent survival of replanted riparian vegetation at the end of Year 3 will require submittal to Ecology per Condition A2 of an Adaptive Management Plan to include additional measures needed to achieve this requirement or a request to amend the performance standard.
- D13. The Applicant shall retain all natural habitat features within the Ordinary High Water Mark (OHWM) larger than 12 inches in diameter, including trees, stumps, logs, and large rocks. These natural habitat features may be moved during construction but shall be placed near the pre-project location before leaving the job site or utilized as mitigation in construction of the causeway.
- D14. Construction shall be limited to daylight hours whenever feasible in order to avoid attracting fish to light at night and causing impacts to coastal resources. If unavoidable, available construction lighting in spectrums that reduce effects on migratory aquatic species shall be utilized.
- D15. Disturbed areas shall be protected from erosion, with erosion and sediment control maintained until demobilization and cleanup of the site is completed.
- D16. When using straw for erosion and sediment control, the Applicant shall use only straw that has been certified as free of noxious weeds and seeds.
- D17. The Applicant shall restore the disturbed bed, bank, and riparian zones as close as possible to pre-project condition unless modified elevations and contours are approved by Ecology.
- D18. The Applicant shall not burn wood treated with preservatives, trash, waste, or other deleterious materials waterward of the OHWM.

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D19. A Care and Diversion Plan shall be developed and implemented. The Care and Diversion Plan shall address the construction schedule and sequencing for [each](#) in-water work [phase](#), including a narrative for how the activities will be completed (e.g., techniques and BMPs).

The Applicant shall submit the Care and Diversion Plan [and any updates](#) for Ecology review and approval per Condition A2 at least 30 days prior to the start of in-water work.

In-Water Construction Conditions:

- D20. All cofferdams and access roads shall be removed at the end of the project and the riverbed restored.
- D21. 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.
- D22. 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.
- D23. The Applicant shall place any riprap or armor rock in such a way as to minimize turbidity. No end dumping of material is allowed.
- D24. The Applicant shall utilize BMPs during placement/construction and removal of structural material (e.g., cofferdams, bulk bags, riprap deflector structure, cofferdam riprap scour protection, gravel berms) and the levee in order to minimize turbidity.
- D25. Water shall be introduced to diversion or new channels slowly in order to minimize turbidity.
- D26. The Applicant shall use tarps or other containment method when cutting or drilling over water to prevent debris, sawdust, and other materials from entering the water.
- D27. All manmade debris that has been deposited below the OHWM within the construction work area shall be removed and disposed of upland such that it does not enter waters of the state. Concrete rubble, metal debris, and other debris in the construction work corridor that have washed into freshwater areas shall be removed from the project area.

- D28. 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).
- D29. Project activities shall be conducted to minimize siltation of the river bed, to the extent practicable.
- D30. Clean Fill Criteria: Applicant shall ensure that fill (soil, sand, or other material) placed for the proposed project does not contain toxic materials in toxic amounts.
- D31. Levee construction activity below OHWM shall be conducted during low flow in order to minimize impacts to water quality, to the maximum extent practicable.
- D32. 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.
- D33. The Applicant shall implement the appropriate measures to prevent the transport and introduction of aquatic invasive species, 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.

Pile Driving Conditions:

- D34. The piles shall be installed using a vibratory hammer whenever possible. An impact hammer may be used to proof pile, if needed.
- D35. Appropriate sound attenuation shall be implemented if driving or proofing steel piling with an impact hammer. Work shall be amended if negative reactions by fish are observed.

Pile Removal Conditions:

- D36. All piles shall be removed from fresh waters unless otherwise approved by Ecology. Piles shall be removed by vibratory extraction. If piles break during removal and cannot be removed by vibratory extraction, the piling shall be cut 2 feet below the mudline.

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- D37. Piles, debris, and all associated excavated sediments shall be contained and prevented from entering waters of the state.
- D38. Piles removed from substrate: the pile shall be moved immediately from the water into onto uplands. The pile shall not be shaken, hosed-off, left hanging to drip or any other action intended to clean or remove adhering material from the pile.
- D39. Work surface on uplands shall include a containment basin for piles and any sediment removed during pulling of the piling. Basins may be constructed of durable plastic sheeting with sidewalls supported by hay bales or support structure to contain all sediment.
- D40. The piles and any sediment removed during pulling of the piling shall be disposed of at an approved upland disposal site.

E. Operational Conditions:

- E1. An Adaptive Management and Monitoring Plan for operation and maintenance of the fish passage facility and barrier shall be developed and implemented. The Applicant shall submit the Adaptive Management and Monitoring Plan for Ecology review and approval per Condition A2 at least 60 days prior to the start of operations of the new fish passage facility and barrier.

The Applicant shall meet the following requirements regarding the Adaptive Management and Monitoring Plan:

- a. This Plan shall be developed based on *Conceptual Operations for Mud Mountain Dam Replacement Barrier Structure and Fish Collection Facility*, prepared by the Corps, received on October 14, 2016.
- b. The Applicant shall convene an interagency/tribal workgroup that includes Ecology, to develop the Adaptive Management and Monitoring Plan.
- c. The Applicant shall include, at a minimum, the following information within the Adaptive Management and Monitoring Plan:
 - i. A description of all operational and maintenance activities at the facility, including:
 - a) Flow management,
 - b) Fish passage,

- c) Sediment and debris (e.g., large wood) buildup management, and
 - d) Ongoing facility maintenance and cleaning;
 - ii. An evaluation of the material to be passed through the barrier;
 - iii. Seasonal timing of specific activities;
 - iv. Best management practices (BMPs) for protection of water quality for each operational and maintenance activity;
 - v. An evaluation of compliance with state water quality standards for each operational and maintenance activity; and
 - vi. Water quality monitoring.
- E2. Upon start of operations of the new fish passage facility and barrier, the Applicant shall provide status reports regarding the operations of the facility on an annual basis, or upon request by Ecology. The status reports shall include the following information:
 - a. The operational and maintenance activities that have been conducted at the fish passage facility and barrier,
 - b. Timing of the activities conducted,
 - c. Success and/or failures of BMP implementation in protection of water quality,
 - d. Water quality monitoring data from the recent period of activity,
 - e. Planned operational and maintenance activities for the upcoming period with approximate schedule,
 - f. Any adjustments proposed in regards to BMP implementation,
 - g. Any water quality monitoring changes proposed for operations and maintenance.
- F. Emergency/Contingency Measures:**
- F1. The Applicant shall develop and implement a Spill Prevention and Containment Plan for all aspects of this project.

- F2. The Applicant shall provide cover, containment, and protection from vandalism for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment.
- F3. The Applicant shall have adequate and appropriate spill response materials on hand to respond to emergency release of petroleum products or any other material into waters of the state.
- F4. 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.
- F5. Any work causing distressed or dying fish, or any discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, is prohibited. If these occur, the Applicant shall immediately take the following actions:
- a. Cease operations at the location of the problem or spill.
 - b. Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.
 - c. Notify Ecology of the failure to comply. All oil spills shall be reported immediately to Ecology's 24-Hour Spill Response Team at 1-800-258-5990, **and** within 24 hours of spills or other events to Ecology's 401/CZM Federal Permit Manager at (425) 649-7129 or (425) 649-7000.
 - d. 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.

Compliance with this condition does not relieve the Applicant from responsibility to maintain continuous compliance with the terms and conditions of this Order or the resulting liability from failure to comply.

G. Timing Requirements

- G1. All work below OHWM shall be conducted between July 15 and August 31 of any year, unless otherwise authorized by this Order.

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- a. 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 7 days prior to start of work.
 - b. Work completed in isolation within a cofferdam may be completed at any time of the year.
- G2. This Order shall be valid during construction and long-term operation and maintenance of the project.
- G3. Phase 3 construction activities shall not start until the Archimedes Screw Lifts (ASL's) have been re-designed, replaced, tested, commissioned, and the Army Corps of Engineers notifies Ecology (in writing) that they have met this condition, unless otherwise approved by Ecology.
- H. Reporting and Notification Requirement Conditions**
- H1. Applicant shall provide notice to Ecology's 401/CZM Federal Permit Manager:
 - At least three (3) days prior to the start of each phase of construction.
 - Within 14 days after completion of construction at the project site.
- Notification, referencing Order No. 13975, shall be sent in writing to ecyrefedpermit@ecy.wa.gov ~~can take place by telephone to (425) 649-7129 or (425) 649-7000, fax to (425) 649-7098, or in writing.~~
- H2. If the project construction is not completed within 13 months of issuance of this Order, the Applicant shall submit per Condition A2 a written construction status report and submit status reports every 12 months until construction is complete or this Order expires.