



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

1250 West Alder Street • Union Gap, Washington 98903-0009 • (509) 575-2490

December 20, 2021

Chelan County Flood Control Zone District
Attn: Jason Detamore, Environmental Manager
Chelan County Public Works Department
316 Washington Street, Suite 402
Wenatchee, WA 98801

RE: Water Quality Certification Order No. 20063 for Slide Ridge Culvert Replacement and Bank Armoring on Lake Chelan located in Chelan County, Washington

Dear Jason Detamore:

On December 29, 2020, Chelan County Flood Control Zone District submitted a request for a Section 401 Water Quality Certification (WQC) under the federal Clean Water Act for the Slide Ridge Culvert Replacement and Bank Armoring, Chelan County, Washington.

On behalf of the State of Washington, the Department of Ecology certifies that the work described in the Joint Aquatic Resource Permit Application (JARPA) and the public notice 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 Order.

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

If you have any questions about this decision, please contact Lori White at (509) 575-2616. The enclosed Order may be appealed by following the procedures described within the Order.

Sincerely,

A handwritten signature in dark ink, appearing to read "Gary Graff", is written over a light blue horizontal line.

Gary Graff, PWS
Regional Section Manager
Shorelands and Environmental Assistance Program
Central Regional Office

Enclosure

Chelan County Flood Control Zone District

December 20, 2021

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ec:

Jess Jordan, Corps of Engineers

Graham Simon, WDFW

Loree' Randall, Department of Ecology

Lori White, Department of Ecology

ECY RE FEDPERMITS

IN THE MATTER OF GRANTING A)	ORDER No. 20063
WATER QUALITY)	Slide Ridge Culvert Replacement and Bank
CERTIFICATION TO)	Armoring on Lake Chelan located in Chelan
Chelan County Flood Control Zone)	County, Washington.
District)	
pursuant to 33 U.S.C. 1341 (FWPCA)	
§ 401), RCW 90.48.120, RCW 90.48.260)	
and Chapter 173-201A WAC)	

Chelan County Flood Control Zone District
 Attn: Jason Detamore, Environmental Manager
 Chelan County Public Works Department
 316 Washington Street, Suite 402 Wenatchee, WA 98801

On December 29, 2020 Chelan County Flood Control Zone District on submitted a request for a Section 401 Water Quality Certification (WQC) under the federal Clean Water Act for the Slide Ridge Culvert Replacement and Bank Armoring on Lake Chelan located in Chelan County, Washington. Ecology issued a public notice for the project on January 19, 2021.

The proposed project entails the replacement of an existing 72 inch corrugated metal pipe culvert with a bridge to span the channel; grading the channel from the upstream side of the proposed bridge to the low water line of Lake Chelan; excavation of 900 cubic yards of channel; placement of 3,200 cubic yards of fill to extend the channel berm's side slopes; the removal of an additional 80 cubic yards of channel material from the OHWM to the low water line; installation of 2,500 cubic yards of rip rap for bank protection and stabilization; construction and use of a temporary bypass road east of the current location of South Lakeshore Road; and filling of the existing sediment basin. The project site(s) are located in Section 21, Township 28N, Range 21E, within Water Resource Inventory Area (WRIA) 47, Chelan Watershed.

AUTHORITIES

In exercising authority under 33 U.S.C. § 1341, RCW 90.48.120, and RCW 90.48.260, Ecology has reviewed the 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 project proponent 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 (WQC) Order, Ecology is granting with conditions, Chelan County Flood Control Zone District request for a Section 401 Water Quality Certification for the Slide Ridge Culvert Replacement and Bank Armoring, Lake Chelan located in Chelan County. Ecology has determined that the proposed discharges 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 December 29, 2020, 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
12/29/2020	Joint Aquatic Resources Permit Application (JARPA) Form	Joint Aquatic Resources Permit Application Form (12/9/2020)	Eric Pierson
12/29/2020	Drawings	Slide Ridge Culvert Replacement (dated 11/10/2020)	RH2 Engineering
2/1/2021	Drawings	Slide Ridge Culvert Replacement (dated 12/4/2020)	Chelan County Flood Control Zone District
12/29/2020	State Environmental Policy Act	Determination of Non-significance (DNS) (dated 11/2/2020)	Chelan County Public Works
12/29/2020	Feasibility Report and Alternatives Analysis (I-III)	Slide Ridge Culvert Replacement Project, Bridge Feasibility Report and Alternatives Analysis (dated July 2020)	KPFF Consulting Engineers
2/1/2021	Mitigation Plan	Slide Ridge Culvert Replacement Project, Mitigation Plan (dated February 2021)	Chelan County Flood Control Zone District
2/1/2021	Water Quality Monitoring Plan	Slide Ridge Culvert Replacement Project, Water Quality Monitoring	Chelan County Flood Control Zone District

		Plan- Outline (dated February 2021)	
5/6/2021	Shoreline Permits	Chelan County Permits, SDP 20-046 & CUP20-003 (3/31/2021)	Department of Ecology
7/6/2021	HPA	Hydraulic Project Approval (12/29/2020)	Department of Fish and Wildlife

Issuance of this Section 401 Water Quality Certification for this proposal does not authorize Chelan County Flood Control Zone District 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 WQC absolves the Chelan County Flood Control Zone District from liability for contamination and any subsequent cleanup of surface waters, ground waters, or sediments resulting from project construction or operations.

A. General Conditions

Clean Water Act (CWA) Section 401 certification is granted with conditions to the Chelan County Flood Control Zone District. Ecology has determined that any discharge from the proposed project will comply with water quality requirements, as defined by 40 CFR 121.1(n), subject to the following conditions pursuant to Section 33 USC §1341(d). Additionally, the following conditions will be incorporated into the Corps permit and strictly adhered to by the Chelan County Flood Control Zone District. 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.

1. In this WQC Order, the term “Project Proponent” shall mean the Chelan County Flood Control Zone District 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 and cc to lori.white@ecy.wa.gov. The submittals shall be identified with Order #20063 and include the Project Proponent’s name, Corps permit number, 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 December 29, 2020 and the supporting documentation identified in Table 1 above.
4. The Project Proponent 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 Project Proponent 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 Order are being met.
6. The Project Proponent 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 Order and all permits, approvals, and documents referenced in this Order. The Project Proponent shall provide Ecology a signed statement (see Attachment A for an example) before construction begins.
7. This 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 Order.
8. 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.
9. The Project Proponent shall provide Ecology documentation for review 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.
10. The Project Proponent shall send (per A.2.) a copy of the final Corps permit to Ecology's Federal Permit Manager within two weeks of receiving it.
11. 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.
12. This Order will automatically transfer to a new owner or operator if:
 1. 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.;
 2. A copy of this Order is provided to the new owner or operator; and
 3. 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 and cc to lori.white@ecy.wa.gov. Notifications shall be identified with Order #20063 and include the Project Proponent name, project name, project location, project contact and the contact phone number.

- Immediately following a violation of state water quality standards or when the project is out of compliance with any conditions of this Order.
 - At least ten (10) days prior to all pre-construction meetings
 - At least ten (10) days prior to conducting initial in-water work activities.
 - Within seven (7) days of completing in-water work activities.
2. In addition to the phone or e-mail notification required under B.1 above, the Project Proponent 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.

C. Timing

1. This Order will expire December 20, 2026.
2. The following in-water work windows apply to the project, unless otherwise authorized by Ecology:
 - a. All activities within the wetted perimeter of Lake Chelan may be conducted between November and May, when Lake Chelan is lowered and work will occur in the dry of any year. To the extent practicable, work within the wetted perimeter of the Lake Chelan work shall be conducted after November 1, 2021.
 - b. All activities in the drainage channels shall be conducted between November thru May of any year. To the extent practicable, work within the drainage channels shall be conducted after November 1, 2021.
3. Any project change that requires a new or revised Hydraulic Project Approval (HPA) from the Department of Fish and Wildlife should be sent to Ecology for review before the change is implemented.

D. Water Quality Monitoring & Criteria

1. This WQC Order does not authorize the Project Proponent to exceed applicable turbidity standards beyond the limits established in WAC 173-201A-200(1)(e)(i)
2. The Project Proponent shall implement the Water Quality Monitoring and Protection Plan (WQMPP or WQPP if use monitoring table above) as proposed and approved by Ecology.

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 Project Proponent shall obtain and comply with the conditions of the Construction Stormwater Permit (National Pollutant Discharge Elimination System - NPDES) issued for this project.
5. Within the project limits¹ all environmentally sensitive areas including, but not limited to, wetlands, wetland buffers, and mitigation areas shall be fenced with high visibility construction fencing (HVF), or staked and flagged in areas of high wildlife use(optional added language), 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 stages² 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 2.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.
6. 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.
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.
8. 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.
9. All equipment being used below the ordinary high water mark shall utilize biodegradable hydraulic fluid.

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

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

Equipment & Maintenance

10. Staging areas will be located a minimum of 50 feet and, where practical, 200 feet, from waters of the state including wetlands.
11. 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.
12. No equipment shall enter, operate, be stored or parked within any sensitive area except as specifically provided for in this WQC Order.
13. 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.
14. 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 Project Proponent shall set up a designated area for washing down equipment.
15. 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.

Bridge Construction and Demolition

16. No structural material may enter waters of the state during bridge demolition activities.
17. During demolition, structures shall be removed from the banks, existing roads, or from adjacent bridges whenever possible. When necessary, equipment may operate below the OHWL, provided the work is consistent with the project's most recent HPA.
18. The Project Proponent shall minimize disturbance of vegetation when constructing the temporary work platforms for bridge construction and demolition activities.
19. Ground improvement activities for the new bridge shall not cause exceedance of water quality standards.
20. All forms for concrete shall be completely sealed to prevent the possibility of fresh concrete entering waters of the state.
21. All concrete shall be completely cured prior to coming into contact with water.

22. Concrete process water shall not enter waters of the state. Any concrete process/contact water discharged from a confined area with curing concrete shall be routed to upland areas to be treated and disposed of appropriately with no possible entry to state waters.
23. All saw cut water and debris generated from saw cutting activities that occur above water shall be contained and disposed of appropriately with no possible entry to waters of the state.
24. All excavated sediment shall be disposed upland in an approved disposal site.

Bank Stabilization

25. Prior to returning stream flow to the de-watered work area, all proposed bank protection measures shall be in place.
26. Placement of rip-rap shall be conducted in compliance with water quality standards for turbidity.

Levee Repair Work

27. Placement of rip-rap and embankment materials shall be conducted in a controlled manner, in compliance with water quality standards for turbidity.
28. Excavation activity both in-water and above the Ordinary High Water Mark shall be conducted in a controlled manner, in compliance with water quality standards for turbidity.

Ground Improvements

29. Ground improvement activities shall not cause exceedance of water quality standards.

F. Mitigation

1. The Project Proponent shall mitigate impacts below the ordinary high water mark as described in the *Slide Ridge Culvert Replacement Project, Mitigation Plan* (hereafter called the "Mitigation Plan") as identified in Table 1 or as modified by this Order and otherwise approved by Ecology.
2. The Project Proponent shall submit any proposed changes to the Mitigation Plan in writing to Ecology (see A.2) for review before implementing the changes.

Implementation

3. Unless otherwise authorized by this WQC Order, the Project Proponent shall begin the compensatory mitigation project before, or concurrently with, impacting wetlands, or Ecology could use its discretionary authority to require the Project Proponent to provide additional compensation to account for additional temporal loss of wetland functions.
4. If the mitigation site(s) cannot be completed within 13 months of the date of this Order, the Project Proponent shall inform Ecology, in writing, of the status of:

Slide Ridge Culvert Replacement and Bank Armoring on Lake Chelan.

With the:

- a. Reason for the delay.
 - b. Expected date of completion.
 - c. The Project Proponent shall submit an updated written notification every 12 months thereafter until the Slide Ridge Culvert Replacement and Bank Armoring on Lake Chelan and the mitigation sites are complete.
5. The Project Proponent shall not use hay or straw on exposed or disturbed soil at the mitigation site(s), unless otherwise provided for in the Mitigation plan.
 6. If weed-barrier fabric is used on the site, the Project Proponent shall use only water-permeable, fully biodegradable, non-toxic weed-barrier fabric for the entire-site and/or individual plant weed control, unless otherwise approved by Ecology. If non-biodegradable plastic weed-barrier fabric is approved by Ecology, it shall be used only at the base of individual plants and shall be removed before it starts to break down, before it interferes with plant growth, or before the end of the monitoring period, whichever comes first.
 7. If seeding is used for temporary erosion control, it must be a seed mix consisting of native, annual, non-invasive plant species, unless otherwise provided for in the Mitigation Plan.
 8. The Project Proponent shall not use solid or mesh plant protector tubes at the mitigation site(s) unless otherwise provided for in the Mitigation Plan.

Monitoring and Maintenance

9. The Project Proponent shall water and maintain all mitigation site plantings so as to meet the Mitigation Plan's performance standards. If an irrigation system is installed, it shall be removed by the end of year three unless Ecology authorizes in writing the system to remain for a longer period or unless otherwise provided for in the Mitigation Plan.
10. The Project Proponent shall monitor the mitigation site for a minimum of 3 years.
11. The Project Proponent shall submit to Ecology (see A.2) monitoring reports documenting mitigation site conditions for each year. The monitoring reports must:
 - a. Be submitted by December 31 of each monitoring year.
 - b. Include the information listed in Attachment A (Information Required for Monitoring Reports).
12. When necessary to meet the performance standards, the Project Proponent shall replace dead or dying plants with the same species, or an appropriate native plant alternative, during the current or upcoming planting season and note species, numbers, and approximate locations of all replacement plants in the subsequent monitoring report.

13. If the Project Proponent has not met all compensatory mitigation conditions by the end of the monitoring period, Ecology may require additional monitoring, additional mitigation, or both. Conditions include specifications in the approved Mitigation Plan, such as performance standards for the mitigation site.

G. Emergency/Contingency Measures

1. The Project Proponent shall develop and implement a spill prevention and containment plan for this project.
2. The Project Proponent 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 Project Proponent 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 Order to the Pollution Control Hearing 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 both 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

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel Road SW STE 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

CONTACT INFORMATION

Please direct all questions about this WQC Order to:

Lori White
Department of Ecology
(509) 575-2616
Lori.White@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 (20) day of December 2021 at the Department of Ecology, Union Gap Washington



12/20/2021

Gary Graff, Section Manager
Shorelands and Environmental Assistance Program

DATE

Attachment A

**Statement of Understanding
Water Quality Certification Conditions**

Slide Ridge Culvert Replacement and Bank Armoring on Lake Chelan Water Quality
Certification WQC Order # 20063

As the Project Proponent for Slide Ridge Culvert Replacement and Bank Armoring on Lake Chelan project, I have read and understand the conditions of Washington State Department of Ecology WQC Order # 20063, 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

Attachment A

Information Required for Monitoring Reports

Slide Ridge Culvert Replacement and Bank Armoring on Lake Chelan
Ecology Order # 20063

Ecology requires the following information for monitoring reports submitted under this Order. Ecology will accept additional information that may be required by other agencies.

Background Information

- 1) Project name.
- 2) Ecology Order number and the Corps reference number.
- 3) Name and contact information of the person preparing the monitoring report. Also, if different from the person preparing the report, include the names of:
 - a) The applicant
 - b) The landowner
 - c) The party responsible for the monitoring activities.
- 4) Dates the monitoring data were collected.
- 5) Date the report was produced.

Mitigation Project Information

- 6) Brief description of the mitigation project, including acreage of Cowardin classes and mitigation type(s) (re-establishment, rehabilitation, creation, enhancement, preservation, upland, buffers).
- 7) Description of the monitoring approach and methods. For each performance standard being measured provide the following information:
 - a) Description of the sampling technique (e.g., monitoring point for soil or hydrology, line or point intercept method, ocular estimates in individually placed plots). If you are using a standardized technique, provide a reference for that method.
 - b) Size and shape of plots or transects.
 - c) Number of sampling locations and how you determined the number of sampling locations to use.
 - d) Percent of the mitigation area being sampled.
 - e) Locations of sampling (provide a map showing the locations), how you determined where to place the sampling locations (e.g., simple random sample), and whether they are permanent or temporary.
 - f) Schedule for sampling (how often and when).
 - g) Description of how the data was evaluated and analyzed.
- 8) Summary table(s) comparing performance standards with monitoring results and whether each standard has been met.
- 9) Discussion of how the monitoring data were used to determine whether the site(s) is meeting performance standards.

- 10) Goals and objectives and a discussion of whether the project is progressing toward achieving them.
 - 11) Summary, including dates, of management actions implemented at the site(s), for example, maintenance and corrective actions.
 - 12) Summary of any difficulties or significant events that occurred on the site that may affect the success of the project.
 - 13) Specific recommendations for additional maintenance or corrective actions with a timetable.
 - 14) Photographs taken at permanent photo stations and other photographs, as needed. Photos must be dated and clearly indicate the direction the camera is facing. Photo pans are recommended.
 - 15) Vicinity map showing the geographic location of the site(s) with landmarks.
 - 16) Mitigation site map(s), 8-1/2" x 11" or larger, showing the following:
 - a) Boundary of the site(s).
 - b) Location of permanent photo stations and any other photos taken.
 - c) Data sampling locations, such as points, plots, or transects.
 - d) Approximate locations of any replanted vegetation.
 - e) Changes to site conditions since the last report, such as areas of regrading, a shift in the location of Cowardin classes or habitat features, or a change in water regime.
- Include the month and year when each map was produced or revised. The site map(s) should reflect on-the-ground conditions during the most recent monitoring year.