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April 23, 2021

Shoalwater Bay Indian Tribe ATTN: Holly Blake PO Box 130 Tokeland, WA 98590

RE: Water Quality Certification Order No. **19877** for Corps Reference No. **NWS-2020-0467**, Ghost Dike Advance Mitigation Project, Wetlands, Pacific County, Washington

Dear Holly Blake:

On May 13, 2020, the Shoalwater Bay Indian Tribe submitted a request for a Section 401 Water Quality Certification (WQC) under the federal Clean Water Act for the Ghost Dike Advance Mitigation Project near Tokeland, Pacific 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. <u>This certification is subject to the conditions contained in the enclosed Order</u>.

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 Kingsbury at (360) 407-6926 or by e-mail at Lori.kingsbury@ecy.wa.gov. The enclosed Order may be appealed by following the procedures described within the Order.

Sincerely,

Perry J Lund, Section Manager Shorelands and Environmental Assistance Program Southwest Regional Office

Enclosure

Shoalwater Bay Indian Tribe Order No. 19877 Corps No. NWS-2020-0467 Page 2

e-cc: Amanda Barbierri, Corps of Engineers Linda Storm, EPA Brent Haddaway, Cascade Environmental Group Rod Lundberg, Cascade Environmental Group Loree' Randall, Ecology Zach Meyer, Ecology Patricia Johnson, Ecology <u>ECYREFEDPERMITS@ECY.WA.GOV</u> - Aquatics No.138824

IN THE MATTER OF GRANTING A
WATER QUALITY
CERTIFICATION TO
Shoalwater Bay Indian Tribe
in accordance with 33 U.S.C. 1341
(FWPCA § 401), RCW 90.48.120, RCW
90.48.260 and Chapter 173-201A WAC

**ORDER No. 19877 Corps Reference No. NWS-2020-0467** Ghost Dike Advance Mitigation Project; Wetlands, Near Tokeland, Pacific County, Washington

Shoalwater Bay Indian Tribe ATTN: Holly Blake PO Box 130 Tokeland, WA 98590

On May 13, 2020, the Department of Ecology (Ecology) received a Joint Aquatic Resources Permit Application (JARPA) from the Shoalwater Bay Indian Tribe requesting a Section 401 Water Quality Certification. The Department of Ecology (Ecology) issued a public notice (pursuant to the provisions of Chapter 173-225 WAC) for the project on June 8, 2020.

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The proposed project entails constructing an advance wetland mitigation site and establishing credits for future impacts from tribally-sponsored development projects. The Project focuses on re-establishment and rehabilitation of wetlands associated with a degraded estuary area that was formerly diked.

The project will remove a remnant breached dike to fully restore tidal marsh ecosystem processes on a portion of Kindred Island in Willapa Bay. Dike removal spoils will be placed in the adjacent borrow ditch to restore site elevations, and twelve shallow tidal channels will be constructed within the project footprint to facilitate tidal flood and ebb hydrology.

The project will also fill a segment of existing borrow ditch that lies between the project area and the existing functioning dike that will remain. The project will permanently plug 2 self-breach locations to prevent recapture of the borrow ditch and minimize the potential for re-excavation of the filled borrow ditch soils. The remnant dike footprint will be ripped to loosen and de-compact surface soils and observed for surface rebound. Disturbed surfaces of the dike removal and the filled borrow ditch footprints will be revegetated through seeding, and through natural recruitment.

The project is located on parcel numbers: 14111250007, 14110150002, and 14100755397 east of Tokeland, Pacific County, Washington; SE <sup>1</sup>/<sub>4</sub> and SW <sup>1</sup>/<sub>4</sub> of Section 1, Township 14 North, Range 11 West and NE <sup>1</sup>/<sub>4</sub> and NW <sup>1</sup>/<sub>4</sub> of Section 12, Township 14 North, Range 11 West; WRIA 24, Willapa Watershed.

# AUTHORITIES

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

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- 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 comply with 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 Shoalwater Bay Indian Tribe 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 certification absolves Applicant from liability for contamination and any subsequent cleanup of surface waters, ground waters or sediments resulting from project construction or operations.

# A. General Conditions:

- 1. For purposes of this Order, the term "Applicant" shall mean the Shoalwater Bay Indian Tribe and its agents, assignees, and contractors.
- All submittals required by this Order shall be sent to via email to <u>fednotification@ecy.wa.gov</u> with a copy to Patricia Johnson at: <u>patricia.johnson@ecy.wa.gov</u>. The submittals shall be identified with Order No. 19877 and include the Applicant name, project name, project contact, and the contact's phone number.
- 3. Work authorized by this Order is limited to the work described in the JARPA received by Ecology on May 13, 2020.
- 4. The Applicant shall obtain Ecology review and approval before undertaking any changes to the proposed project that might significantly and adversely affect water quality, other than those project changes required by this Order.
- 5. Within 30 days of receipt of any updated information, Ecology will determine if the revised project requires a new water quality certification and public notice or if a modification to this Order is required.

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- 6. The Applicant shall keep copies of this 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.
- 7. The Applicant shall provide access to the Ghost Dike Advance Wetland Mitigation Site (AWMS) upon request by Ecology personnel for site inspections, monitoring, necessary data collection, and/or to ensure conditions of this Order are being met.
- 8. Nothing in this Order waives Ecology's authority to issue additional orders if Ecology determines 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.
- 9. 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 Order to incorporate any such changes or amendments applicable to this project.
- 10. The Applicant shall provide to Ecology a signed statement (see Attachment A for an example) that s/he has read and understands the conditions of this Order and any permits, plans, documents, and approvals referenced herein. The signed statement shall be submitted to Ecology per Condition A2 at least seven (7) days prior to start of in-water work.
- 11. The Applicant shall ensure all project engineers, contractors, and other workers at the AWMS with authority to direct work have read and understand the conditions of this Order and any permits, plans, documents, and approvals referenced in the Order.
- 12. 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.
- 13. 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 the terms of this Order.

# **B.** Notification Conditions:

- 1. The following notifications shall be made to Ecology per Condition A.2.:
  - a. Immediately following a violation of state water quality standards or when the project is out of compliance with any of the Conditions of this Order.
    - i. In addition to the phone or email notification, 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.

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- b. At least ten (10) days prior to all pre-construction meetings.
- c. At least ten (10) days prior to the onset of work at the AWMS.
- d. Within ten (10) days after completing work at the AWMS.
- 2. If the AWMS construction is not completed within 13 months of issuance of this Order, the Applicant shall submit a written construction status report and submit status reports every 12 months until construction is completed.

#### C. Advance Mitigation Site Conditions:

#### Design and Construction

- 1. The Applicant shall implement the *Shoalwater Bay Indian Tribe Ghost Dike Advance Mitigation Project* (hereafter called the "Mitigation Plan"), prepared by Cascade Environmental Group, and dated March 2021, or as modified by this Order or revised and approved by Ecology.
- 2. The Applicant shall submit any proposed changes to the Mitigation Plan in writing to Ecology (per condition A.2.) for review and approval before implementing the changes.
- 3. The Applicant shall have a qualified wetland professional at the AWMS to supervise during construction and planting.
- 4. The Applicant shall ensure all excess excavated site material is disposed of in an appropriate location outside of wetlands and their buffers and landward of the 100-year floodplain, unless otherwise provided for in the Mitigation Plan.
- 5. The Applicant shall ensure no material is stockpiled within existing wetlands or their buffers at the AWMS at any time, unless provided for in the Mitigation Plan.
- 6. The Applicant shall not use polyacrylamide at the AWMS.
- 7. Aquatic herbicides can be used or applied only by certified applicators or persons under the direct supervision of a certified applicator, and only for those uses covered by the certified applicator's license category.
  - a. Applicators are required to be permitted under Ecology's Noxious Weed Control Permit.
  - b. Applicators shall comply with all conditions of the Noxious Weed Control Permit.
- 8. If weed-barrier fabric is used on the site, the Applicant 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.

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- 9. If seeding is used for temporary erosion control, it must be a seed mix consisting of native, annual, non-invasive plant species, unless otherwise approved by Ecology.
- 10. The Applicant shall place signs protecting the AWMS per the Mitigation Plan, Site-Specific Goals, Objectives, and Performance Standards Section.
- 11. Upon completion of site grading and prior to planting, the Applicant shall submit to Ecology per Condition A2 written confirmation (email or signed letter) from a surveyor or project engineer that the finished grades are consistent with the approved Mitigation Plan or subsequent Ecology-approved plan changes and also indicate how final elevations were determined.
- 12. After completing construction and planting of the AWMS, the Applicant shall submit to Ecology (per Condition A.2.) an as-built report, including plan sheets documenting site conditions at Year Zero. The as-built report must:
  - a. Be submitted within 90 days of completing construction and planting.
  - b. Include the information listed in Attachment B (Information Required for As-built Reports).
  - c. Include documentation of the site protection mechanisms required in Conditions C.13 and C.14, below.
- 13. The Applicant shall provide Ecology with documentation that a formal tribal council resolution has been approved to maintain the AWMS in a natural state in perpetuity.
- 14. The Applicant shall submit to Ecology a legal site protection instrument for review and approval. The Ecology approved legal site protection instrument must be executed prior to use of mitigation credits from the AWMS.

Monitoring and Maintenance

- 15. The Applicant shall monitor the AWMS for a minimum of 10 years. The Applicant shall use the monitoring methods described in the Monitoring Plan section of the Mitigation Plan.
- 16. The Applicant shall submit to Ecology (per condition A2) monitoring reports documenting the AWMS conditions for years 1, 2, 3, 5, 7, and 10. The monitoring reports must:
  - a. Be submitted by December 31 of each monitoring year.
  - b. Include the information listed in Attachment C (Information Required for Monitoring Reports).
- 17. The Applicant shall implement the Mitigation Plan's contingency measures if the Plan's goals, objectives, or performance standards are not being met.
- 18. Prior to implementing contingency measures not specified in the Mitigation Plan, the Applicant shall consult with and obtain written approval from Ecology for the contingency measures.

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- 19. For monitoring years five (5) and ten (10), the Applicant shall use the currently approved federal wetland delineation manual and appropriate regional supplement to delineate all compensatory wetlands and include delineation information (e.g., data sheets, maps, etc.) in the monitoring reports.
- 20. If the Applicant has not met all conditions, including performance standards for the AWMS, at the end of the monitoring period, Ecology may require additional maintenance and monitoring.

# **D.** Mitigation Credit Use:

- 1. All future Shoalwater Bay Indian Tribe projects that propose to impact wetlands and use the AWMS to offset those impacts will be evaluated individually under applicable state regulations and will be required to avoid and minimize wetland impacts to the greatest extent practicable.
- 2. Only Shoalwater Bay Indian Tribe will be allowed to use mitigation credits at the AWMS Site to offset wetland impacts associated with Shoalwater Bay Indian Tribe projects. No other entity can use or purchase mitigation credits at the AWMS.
- 3. Ecology will determine, on a case-by-case basis, whether mitigation credits generated by the AWMS will be considered suitable compensation to offset Shoalwater Bay Indian Tribe proposed wetland impacts. This Order does not guarantee Ecology will deem the AWMS suitable compensation for any specific wetland impact.
- 4. Shoalwater Bay Indian Tribe must maintain a ledger of all mitigation credits available, used, and remaining at the AWMS per the Mitigation Plan. Shoalwater Bay Indian Tribe must submit an updated copy of this ledger to Ecology each time mitigation credit is used at the AWMS and include a current copy of the ledger with each monitoring report.
- 5. Documentation demonstrating attainment of performance standards will be submitted to Ecology for review and approval as a condition of Ecology's authorization of use of mitigation credits to offset wetland impacts. Documentation can typically be included in required monitoring reports. Ecology reserves the right to visit the site to confirm whether the monitoring report reflects conditions at the AWMS.
- 6. If the Applicant has not met all conditions, including performance standards for the AWMS, at the end of the monitoring period, Ecology may require additional compensation to ensure wetland impacts associated with projects that used AWMS mitigation credits are adequately offset.

# E. Water Quality Conditions:

1. This Order does not authorize the Applicant to exceed applicable turbidity standards beyond the limits established in WAC 173-201A-210.

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- 2. The Applicant shall conduct water quality monitoring as described in the approved Final *Water Quality Monitoring and Protection Plan (WQMPP) Ghost Dike Advance Mitigation Project, Aquatics No. 138824*, prepared by Cascade Environmental Group and dated January 21, 2021.
- 3. The Applicant must provide, in writing, any changes or additions to the Final Approved WQMPP and obtain approval from Ecology's Federal Permit Manager prior to implementation of the changes or additions.
- 4. Mitigation and/or additional monitoring may be required if the monitoring results indicate that the water quality standards have not been met.
- 5. Work below Ordinary High Water Mark of watercourses shall occur in the dry, to the extent practicable.
- 6. 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.

# F. Conditions for Construction Activities:

- 1. Applicant shall obtain and comply with a Construction Stormwater General Permit for this project.
- 2. Construction stormwater, sediment, and erosion control best management practices (BMPs; *e.g.*, filter fences, etc.) suitable to prevent exceedances of state water quality standards shall be in place before starting construction at the site.
- 3. Sediment and erosion control measures shall be inspected and maintained prior to and during project implementation.
- 3. All construction debris shall be properly disposed of in a manner to prevent it from entering the waters of the state.
- 4. 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.
- 6. 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.
- 7. The Applicant shall ensure that fill (soil) placed for the proposed project does not contain toxic materials in toxic amounts.

# G. Emergency/Contingency Measures:

1. The Applicant shall develop and implement a Spill Prevention and Containment Plan for all aspects of this project.

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- 2. 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.
- 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. Any work that is 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 violation 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. <u>Notify Ecology of the failure to comply</u>. 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 (360) 407-7032 or (360) 407-7000.
  - 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.

# H. Timing Requirements

This Order is valid until This Order is valid until Ecology issues a closeout letter, which shall be issued after the monitoring period has been completed and all mitigation credits have been used.

#### 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 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.

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• 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
<b>Department of Ecology</b>	<b>Department of Ecology</b>
Attn: Appeals Processing Desk	Attn: Appeals Processing Desk
300 Desmond Drive SE	PO Box 47608
Lacey, WA 98503	Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b>	<b>Pollution Control Hearings Board</b>
1111 Israel RD SW, Suite 300	PO Box 40903
Tumwater, WA 98501	Olympia, WA 98504-0903

#### **CONTACT INFORMATION**

Please direct all questions about this Order to:

Lori Kingsbury Department of Ecology Southwest Regional Office PO Box 47775 Olympia, WA 98504-7775 lori.kingsbury@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

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- 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

<u>April 23, 2021</u> Date

Perry J Lund, Section Manager Shorelands and Environmental Assistance Program Southwest Regional Office Department of Ecology

#### Attachment A Statement of Understanding Water Quality Certification Conditions

Ghost Dike Advance Mitigation Project Shoalwater Bay Indian Tribe Water Quality Certification Order No. **19877** and Corps Reference No. **NWS-2020-0467** 

As the Applicant for the Ghost Dike Advance Mitigation Project, I have read and understand the conditions of Washington State Department of Ecology Order No. 19877, and any permits, plans, documents, and approvals referenced in the 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 Order and any permits, plans, documents, and approvals referenced in the Order.

Signature

Date

Title

Phone

Company

# Attachment B Information Required for As-built Reports

Ghost Dike Advance Mitigation Project Ecology Order No. 19877 And Corps Reference No. NWS-2020-0467

Ecology requires the following information for as-built 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 as-built report. Also, if different from the person preparing the report, include the names of:
  - a. The applicant
  - b. The landowner
  - c. Wetland professional on site during construction of the mitigation site(s).
- 4. Date the report was produced.

#### **Mitigation Project Information**

- 5. Brief description of the **final** mitigation project with any changes from the approved plan made during construction. Include:
  - a. Actual acreage of Cowardin classes and mitigation type(s) (re-establishment, rehabilitation, creation, enhancement, preservation, upland, buffers).
  - b. Important dates, including:
    - i. Start of project construction.
    - ii. When work on the mitigation site began and ended.
    - iii. When different activities such as grading, removal of invasive plants, installing plants, and installing habitat features began and ended.
- 6. Description of any problems encountered and solutions implemented (with reasons for changes) during construction of the mitigation site(s).
- 7. List of any follow-up actions needed, with a schedule.
- 8. Vicinity map showing the geographic location of the site(s) with landmarks.
- 9. Mitigation site map(s), 8-1/2" x 11" or larger, showing the following:
  - a. Boundary of the site(s).
  - b. Topography (with a description of how elevations were determined).
  - c. Installed planting scheme (quantities, densities, sizes, and approximate locations of plants, as well as the source(s) of plant material).

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- d. Location of habitat features.
- e. Location of permanent photo stations and any other photos taken.

Include the month and year when each map was produced or revised. The site map(s) should reflect on-the-ground conditions after the site work is completed.

- 10. Photographs taken at permanent photo stations and other photographs, as needed. Photos must be dated and clearly indicate the direction from which each photo was taken. Photo pans are recommended.
- 11. A copy of any deed notifications, conservation easements, or other approved site protection mechanism.

# Attachment C Information Required for Monitoring Reports

Ghost Dike Advance Mitigation Project Ecology Order No. 19877 And Corps Reference No. NWS-2020-0467

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).

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- 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.