



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

June 8, 2016

BNSF Railway Company
Attn: Ms. Megan Reagan
2454 Occidental Avenue S, Suite 2-D
Seattle, WA 98134-1451

Re: Amendment to 401 Water Quality Certification Order No. 12930 for U.S. Army Corps of Engineers Reference No. NWS-2014-416, BNSF Task 5 Infrastructure Improvements Project (Kelso to Martin's Bluff – New Siding), Schoolhouse Creek, Unnamed Tributaries T2 & T3) and Wetlands, Kalama, Cowlitz County, and Otter Creek Island, Cowlitz River and Otter Creek, Lewis County, Washington.

Dear Ms. Reagan:

Enclosed is an amendment to Water Quality Certification Order No. 12930, issued on October 29, 2015, for the above-referenced project.

The purpose of this amendment is to address the work associated with the Otter Creek Island Restoration that is provided as habitat mitigation (condition No. F.1) for the above-referenced project. The intent of the habitat restoration project is to improve salmonid habitat throughout the project area by adding morphological complexity and restoring habitat-forming processes within a specific reach of the Cowlitz River.

If you have any questions, please contact Lori Kingsbury at 360-407-6926. The enclosed Amendment may be appealed by following the procedures described in the Amendment.

Sincerely,

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

Enclosure

By certified mail: 7015 0640 0001 0768 4793



cc: Ron Wilcox, U.S. Army Corps of Engineers
Steve West, WDFW - VFO
Scott Brummer, WDFW - VFO
Peter Barber, Cowlitz Indian Tribe
William J. Berry, Natural Recovery
Phil Rigdon, Confederated Tribes and Bands of the Yakama Nation

e-cc: ecyrefedpermits@ecy.wa.gov
Chris Regan, WSDOT
Pierre Bordenave, Jacobs Engineering Group, Inc.
Ross Widener, Widener & Associates
Loree' Randall, HQ-SEA
Lori Kingsbury, SWRO-SEA
Rebecca Rothwell, SWRO-SEA
Sheila Pendleton-Orme, VFO-WQ

IN THE MATTER OF GRANTING) ORDER No. 12930, First Amendment
A WATER QUALITY) Corps Reference No. NWS-2014-416
CERTIFICATION TO)
BNSF Railway)
In accordance with 33U.S.C. 1341)
(FWPCA §401), RCW 90.48.120, RCW)
90.48.260 and Chapter 173-201A WAC)

TO: BNSF Railway Company
Attn: Ms. Megan Reagan
2454 Occidental Avenue S, Suite 2-D
Seattle, WA 98134-1451

On October 29, 2015 the Washington Department of Ecology (Ecology) issued a 401 Water Quality Certification to BNSF Railway Company for the above-referenced project pursuant to the provisions of 33 U.S.C. 1341 (FWPCA § 401).

Ecology received a request on February 1, 2016 to cover the work outlined in the required habitat mitigation at Otter Creek for the Task 5 project.

Administrative Order No. 12930 dated October 29, 2015 is hereby amended as follows:

I. The project description is amended to include the following:

The Otter Creek Island Restoration Project is provided as mitigation to offset fish habitat impacts associated with the BNSF Task 5 rail project. The primary goal of the restoration is to create perennial side channel habitat through Otter Creek Island and enhance salmonid habitat within the existing Otter Creek side channel. A secondary goal of the restoration includes the creation of off-channel and main stem complex wood cover, and increasing sediment supply to enhance spawning habitat.

The restoration project design includes the following elements:

- Creation of a new (approximately) 1,941-ft-long perennial side channel (main side channel) through Otter Creek Island;
- A new 700-ft-long (approximately) ephemeral side channel (upstream side channel) that connects the new perennial side channel to the existing Otter Creek side channel downstream of the home site on the left bank;
- A 357-ft long excavated backwater area at the downstream end of the existing side channel;
- Two large engineered log jams (ELJs) and associated pools along the main stem; one at the head of Otter Creek Island to direct flow into the side channels and the other at the outlet of the side channel for scouring the outlet and maintaining the main stem connection to the backwater area at low flow;

- Placement of twenty-eight (28) mid-size log jams (Type 2 ELJs) along the main stem and the perennial side channel network for creation of complex wood cover, gravel sorting, and pool creation;
- One flow deflector engineered log jam (Type 3 ELJ) at the entrance of the existing side channel that blocks flow to the existing side channel and directs flow into the new perennial and ephemeral side channels;
- A gravel augmentation/nourishment bar along the north side of Otter Creek Island for supplying spawning gravels to the Cowlitz River; and
- Placement of up to 40 additional habitat complexity logs and up to 60 vertical log posts for stabilizing the habitat complexity logs added to the existing Otter Creek side channel.

The proposed restoration project is located between river mile (RM) 43 and 43.3 of the Cowlitz River just north of 138 Alder Creek Road, near the City of Toledo, unincorporated Lewis County, Washington; Section 32, Township 12 North, Range 1 East; WRIA 26, Cowlitz Watershed. All work will take place within the limits of the alluvial floodplain of the Cowlitz River on Washington State Department of Natural Resources owned and managed aquatic land.

II. The following shall apply to Section A, General Conditions:

Condition Number 3, which reads:

3. Work authorized by this Order is limited to the work described in the JARPA package received by Ecology on July 8, 2015. The Applicant will be out of compliance with this Order and must reapply with an updated application if the information contained in the JARPA is voided by subsequent changes to the project not authorized by this Order.

Is replaced with:

3. Work authorized by this Order is limited to the work described in the JARPA package received by Ecology on July 8, 201, and the Otter Creek Island Restoration JARPA received on February 1, 2016. The Applicant will be out of compliance with this Order and must reapply with an updated application if the information contained in the JARPA is voided by subsequent changes to the project not authorized by this Order.

The following Condition shall be added to Section A:

12. All other conditions within Section A of Order No. 12930 shall also apply to the Otter Creek Island Restoration Project.

III. The following shall be added to Section B, Water Quality Conditions:

5. Water Quality Monitoring for Otter Creek Island Restoration: The Applicant shall conduct water quality monitoring as described in the approved *Supplement Water Quality Monitoring and Protection Plan (WQMPP), Otter Creek Island Restoration, Corps Reference No. NWS-2014-416, Ecology Order No. 12930, Lewis County, WA*, dated May 17, 2016 prepared for BNSF Railway Company, 2454 Occidental Avenue South, Suite 2D, Seattle, WA 98134 and the Cowlitz Indian Tribe, 7700 26th Avenue, Vancouver,

WA 98665; prepared by: Jason Cade, Biologist, Widener & Associates, 10108 32nd Avenue W, Everett, WA 98204.

6. Reporting for Otter Creek Island Restoration: Results of the water quality monitoring shall be documented in the proposed monitoring form and submitted weekly to Ecology's Federal Permit Manager (per Condition A.2. of Order No. 12930) during the period of in-water-work activities.

The following Condition shall be added to this section:

7. Conditions 1, 2.d, 2.e., 3, and 4 in Section B of Order No. 12930 shall also apply to the Otter Creek Island Restoration project.

IV. The following condition is added to Section C, Timing Conditions:

3. The following work window applies to the Otter Creek Island Restoration:
 - a. July 15 – September 15, 2016

V. The following condition is added to Section D, Notification Requirements:

Condition number 1, that reads:

1. The Applicant shall provide to Ecology's Federal Permit Manager (per Condition A.2 above) a copy of the final Corps permit within two week of receipt of the permit.

Is replaced with:

1. The Applicant shall provide to Ecology's Federal Permit Manager (per Condition A.2 above) a copy of the final Corps permit and any subsequent Amendments within two week of receipt of the permit or Amendment.

The following condition is added to Section D:

3. Conditions 2.a. through 2.d. (above) shall also apply to the Otter Creek Island Restoration project.

VI. The following shall apply to Section E., Construction Conditions:

Condition Number E.1 that reads:

1. The Applicant shall comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit No. WAR 303079 issued for this project.

Is replaced with:

1. The Applicant shall comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit No. WAR

303079 issued for the Task 5 project area. A Construction Stormwater General Permit shall also be obtained and complied with for the Otter Creek Island Restoration Site.

The following conditions are added to Section E:

34. Construction conditions E.1. through E.15, E.18 through E.24, and E. 27 though E.30 of Order No. 12930 shall also apply to the Otter Creek Island Restoration Project.
35. All temporary structures placed to facilitate project construction for the Otter Creek Restoration project shall be removed and the area completely restored upon completion of project construction.

VII. The following condition is added to the Emergency/Contingency Measures:

5. All Emergency/Contingency Measures of Order No. 12930 shall also apply to the Otter Creek Habitat Mitigation Site.

No other conditions or requirements of the above-mentioned 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 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.
- 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
<p>Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503</p> <p>Pollution Control Hearings Board 1111 Israel Rd SW, Suite 301 Tumwater, WA 98501</p>	<p>Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608</p> <p>Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903</p>

CONTACT INFORMATION

Please direct all questions about this Order to:

Lori Kingsbury
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775
lori.kingsbury@ecy.wa.gov

SIGNATURE



Perry J Lund, Unit Supervisor
Shorelands and Environmental Assistance Program
Southwest Regional Office
Department of Ecology

6/8/2016

Date

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

June 8, 2016 First Amendment changes are reflected in RED.

IN THE MATTER OF GRANTING A)
WATER QUALITY) ORDER No. 12930
CERTIFICATION TO)
BNSF Railway Company) Corps Reference No. NWS-2014-416
ATTN: Ms. Megan Reagan) Task 5–Infrastructure Improvements (Kelso to
in accordance with 33 U.S.C. 1341) Martin’s Buff–New Siding) Wetlands,
(FWPCA § 401), RCW 90.48.120, RCW) Schoolhouse Creek and Unnamed Tributaries to
90.48.260 and Chapter 173-201A WAC) the Kalama and Columbia Rivers, Cowlitz
County, Washington

TO: BNSF Railway Company
ATTN: Ms. Megan Reagan
2454 Occidental Avenue South, Suite 2-D
Seattle, WA 98134-1451

On November 25, 2014, BNSF Railway Company submitted a Joint Aquatic Resource Permit Application (JARPA) to the Department of Ecology (Ecology) requesting a Section 401 Water Quality Certification. A Revised JARPA was submitted on July 8, 2015. A Joint Public Notice regarding the request was distributed by the U.S. Army Corps of Engineers (Corps) for the above-referenced project pursuant to the provisions Chapter 173-225 WAC on October 31, 2014.

The project will construct approximately 4 miles of a third mainline track within a four-mile work corridor to the east of the existing BNSF double-track mainline from BNSF Milepost (MP) 109.9 near Toteff Road, north to MP 105.9 just south of the BNSF bridge crossing the Kalama River. The purpose of the project is improve passenger rail transportation by constructing a track on the BNSF Seattle Subdivision Mainline to allow passenger trains to bypass freight traffic entering and/or leaving the Port of Kalama and Kalama switchyard. The current configuration results in congestion and service delays that affect passenger train reliability.

Key project elements include: excavation, fill, and grading for the new track rail grade; track construction; signals; turnouts; crash walls; retaining walls; infrastructure improvements; culvert extensions; and utility infrastructure upgrades and relocation throughout the project limits.

The project will permanently fill 3.34 acres of Category II and Category III wetlands within the project area. Mitigation to compensate for the proposed unavoidable wetland impacts will be accomplished through the purchase of 3.94 wetland bank credits at the Coweeman River Wetland Mitigation Bank (CRWMB). If the Applicant has not purchased the 3.94 credits at the CRWMB by July 1, 2016, the Applicant shall implement permittee-responsible mitigation at the Coweeman Bank site.

The Applicant shall compensate for habitat impacts through an agreement with the Cowlitz Tribe to provide funding to implement the *Otter Creek Island Restoration Project–Preliminary Basis of Design Report* prepared by Natural Systems Design for the Cowlitz Indian Tribe.

The primary goal of the restoration is to create perennial side channel habitat through Otter Creek Island and enhance Salmonid habitat within the existing Otter Creek side channel. A secondary goal of the restoration includes the creation of off-channel and main stem complex wood cover, and increasing sediment supply to enhance spawning habitat.

The restoration project design includes the following elements:

- Creation of a new (approximately) 1,941-ft-long perennial side channel (main side channel) through Otter Creek Island;
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- A 357-ft long excavated backwater area at the downstream end of the existing side channel;
- Two large engineered log jams (ELJs) and associated pools along the main stem; one at the head of Otter Creek Island to direct flow into the side channels and the other at the outlet of the side channel for scouring the outlet and maintaining the main stem connection to the backwater area at low flow;
- Placement of twenty-eight (28) mid-size log jams (Type 2 ELJs) along the main stem and the perennial side channel network for creation of complex wood cover, gravel sorting, and pool creation;
- One flow deflector engineered log jam (Type 3 ELJ) at the entrance of the existing side channel that blocks flow to the existing side channel and directs flow into the new perennial and ephemeral side channels;
- A gravel augmentation/nourishment bar along the north side of Otter Creek Island for supplying spawning gravels to the Cowlitz River; and
- Placement of up to 40 additional habitat complexity logs and up to 60 vertical log posts for stabilizing the habitat complexity logs added to the existing Otter Creek side channel.

The project location is within the right-of-way (ROW) of the BNSF NW division, Seattle Subdivision, Line Segment 52, between Milepost (MP) 105.9 and MP 109.9 in the Port of Kalama industrial area, generally south of the Kalama River, along North Hendrickson Drive to the Toteff Road Crossing within the unincorporated city limits of Kalama, Cowlitz County, WA; in portions of Sections 6, 7, 18, 20, 37, and 44 in Township 6 North, Range 1 West, Willamette Meridian; WRIA 27, Lewis Watershed.

The proposed restoration project is located between river mile (RM) 43 and 43.3 of the Cowlitz River just north of 138 Alder Creek Road, near the City of Toledo, unincorporated Lewis County, Washington; Section 32, Township 12 North, Range 1 East; WRIA 26, Cowlitz Watershed. All work will take place within the limits of the alluvial floodplain of the Cowlitz River on Washington State Department of Natural Resources owned and managed aquatic land.

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, 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 activities as proposed and conditioned will be conducted in a manner that will not violate 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:

1. For purposes of this Order, the term "Applicant" shall mean Burlington Northern Santa Fe (BNSF) Railway and its agents, assignees, and contractors.
2. All submittals required by this Order shall be sent to Ecology's Southwest Regional Office, Attn: Federal Permit Manager, SEA Program, P.O. Box 47775, Olympia, WA 98504-7775 or lori.kingsbury@ecy.wa.gov. Any submittals shall reference Order No. **12930** and Corps No. **NWS-2014-416**.
3. Work authorized by this Order is limited to the work described in the JARPA package received by Ecology on **July 8, 2015 and the Otter Creek Island Restoration JARPA received on February 1, 2016**. The Applicant will be out of compliance with this Order and must reapply with an updated application if the information contained in the JARPA is voided by subsequent changes to the project not authorized by this Order.

4. Within 30 days of receipt of an updated JARPA, Ecology will determine whether the revised project requires a new water quality certification and public notice or whether a modification to this Order is required.
5. This Order shall be rescinded if the U.S. Army Corps of Engineers does not issue a Section 404 permit.
6. Copies of this Order shall be kept on the job site and readily available for reference by Ecology personnel, the construction superintendent, construction managers, lead workers, and state and local government inspectors.
7. 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.
8. 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.
9. 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.
10. 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.
11. Failure to comply with the Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.
12. All other conditions within Section A of Order No. 12930 shall also apply to the Otter Creek Island Restoration Project.

B. Water Quality Conditions:

1. This Order does not authorize temporary exceedances of water quality standards beyond the limits established in WAC 173-201A-200(1)(e)(i).

Turbidity criteria for all activities and waterbodies, including wetlands, shall not exceed:

- 5 NTU over background when the background is 50 NTU or less;
 - A 10 percent increase in turbidity when the background turbidity is more than 50 NTU.
2. Water Quality Monitoring: The Applicant shall further revise the *Revised Water Quality Monitoring and Protection Plan (WQMPP) Task 5–Infrastructure Improvements (Kelso Martins Bluff–New Siding) Corps Reference No: NWS-2014-416, Cowlitz County, Washington*, prepared by J.L. Patterson & Associates, Inc. for BNSF Railway Company, dated October 22, 2015 to address Ecology review comments made on October 29, 2015 and to be consistent with the conditions of this Order.

A final WQMPP shall be submitted to the Federal Permit Manager for review and approval at least 20 days prior to beginning any work covered by this plan at the project site.

- a. Parameters to be Monitored: Turbidity
- b. Monitoring Equipment:
- Physical (Instrumented) turbidity monitoring shall be conducted using a turbidimeter properly calibrated according to the operators' manual.
 - Visual turbidity monitoring shall be conducted by examining the surface waters at the established monitoring locations and documenting the conditions by photograph and recording the results of each monitoring event in a Monitoring Data Sheet.
- c. Reporting: Results of the water quality monitoring shall be documented in a report and submitted to Ecology's Federal Permit Manager per Condition A.2 of this Order **weekly** during in- and over-water work activities. At a minimum, the reports must include:
- Date and time of sample;
 - Sample location;
 - Sample Results (i.e.: Monitoring Data Sheet, Photographs)
 - Name of person collecting the sample;
 - Weather Conditions.
- d. Water Quality Exceedances: If water quality exceedances are observed outside the point of compliance, work shall cease immediately and the Applicant of the contractor shall assess the cause of the water quality problem and take immediate action to stop, contain, correct the problem, and prevent further turbidity exceedances.
- e. Provide Notification of exceedances: Notification of exceedances shall be made to Ecology **within 24 hours of occurrence**. Notification shall be made with reference

to Order No. **12930** by telephone at (360) 407-6926 or by e-mail at lori.kingsbury@ecy.wa.gov. The Applicant shall provide Ecology with the following information, at a minimum:

- A description of the nature, extent, and cause of the exceedance.
 - The period of non-compliance, including exact dates, duration, and times and/or the anticipated time when the project will return to compliance.
 - The steps taken, or to be taken, to reduce, eliminate, and prevent recurrence of the non-compliance.
 - 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, water quality monitoring results and location, photographs, and any other pertinent information.
3. Ecology must approve, in writing, changes or additions to the final approved WQMPP.
 4. Mitigation and/or additional monitoring may be required if the monitoring results indicate that the water quality standards have not been met.
 5. Water Quality Monitoring for Otter Creek Island Restoration: The Applicant shall conduct water quality monitoring as described in the approved *Supplement Water Quality Monitoring and Protection Plan (WQMPP), Otter Creek Island Restoration, Corps Reference No. NWS-2014-416, Ecology Order No. 12930, Lewis County, WA*, dated May 17, 2016 prepared for BNSF Railway Company, 2454 Occidental Avenue South, Suite 2D, Seattle, WA 98134 and the Cowlitz Indian Tribe, 7700 26th Avenue, Vancouver, WA 98665; prepared by: Jason Cade, Biologist, Widener & Associates, 10108 32nd Avenue W, Everett, WA 98204.
 6. Reporting for Otter Creek Island Restoration: Results of the water quality monitoring shall be documented in the proposed Monitoring form and submitted weekly to Ecology's Federal Permit Manager (per Condition A.2. of Order No. 12930) during the period of in-water work activities.
 7. Conditions 1, 2.d., 2.e., 3, and 4 in Section B of Order No. 12930 shall also apply to the Otter Creek Island Restoration project.

C. Timing:

1. This Order will expire five (5) years from the date of issuance of the associated Corps permit unless extended by Ecology for monitoring the Permittee-Responsible Mitigation.
2. The following work window shall apply to this project for in-stream work:
 - a. July 15 – August 31

- b. All project-related activities occurring outside/above the wetted perimeter may occur at any time during the life of this Order.

3. The following work window applies to the Otter Creek Island Restoration:

- a. July 15 – September 15, 2016

D. Notification Requirements:

1. The Applicant shall provide to Ecology's Federal Permit Manager (per Condition A.2 above) a copy of the final Corps permit and any subsequent Amendments within two week of receipt of the permit or Amendment.
2. The Applicant shall provide written notification (FAX, e-mail or mail) to Ecology's Southwest Regional Office Federal Permit Manager in accordance with condition A.2 above for the following activities:
 - a. At least ten (10) days prior to the onset of in-water work (including wetlands) for each construction season;
 - b. No more than ten (10) days after completion of in-water work for each project season;
 - c. Immediately following a violation of the state water quality standards or any condition of this Order.
 - d. Within fourteen (14) days after completion of project construction. If project construction is not completed within thirteen (13) months of issuance of this Order, the Applicant shall submit a written construction status report. Status reports shall be submitted every twelve (12) months thereafter for the duration of this Order.
3. Conditions 2.a. through 2.d. (above) shall also apply to the Otter Creek Island Restoration project.

E. Construction Conditions:

1. The Applicant shall comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit No. WAR 303079 issued for the Task 5 project area. A Construction Stormwater General Permit shall also be obtained and complied with for the Otter Creek Island Restoration Site.
2. All work in and near waters of the state shall be conducted so as 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 clearing, filling, and grading work and shall be inspected and maintained throughout construction.
3. Within the project limits, all environmentally sensitive areas that are to be protected from disturbance shall be fenced with high-visibility construction fence (HVF) prior to

commencing construction activities. All project staff shall be trained to recognize construction fencing or flagging that identifies sensitive area boundaries.

4. All work within the project limits shall be clearly marked/staked prior to construction. Clearing limits, travel corridors, stockpile locations, and staging areas shall be clearly marked prior to commencing construction activities and maintained until all work is completed for this project. Equipment shall enter and operate within the marked clearing limits, corridors, staging, and stockpile areas only.
5. No petroleum products, fresh concrete, lime or concrete, chemicals, or other toxic or deleterious materials shall be allowed to enter waters of the state.
6. All construction debris, silt, excess dirt, or overburden resulting from this project shall be properly disposed of on upland so that it cannot enter a waterway (including wetlands) or cause water quality degradation to state waters.
7. Appropriate BMPs shall be implemented to minimize track-out during construction.
8. Clean Fill Criteria: The Applicant shall ensure that fill (soil) placed for the proposed project does not contain toxic materials in toxic amounts.

Equipment & Maintenance

9. The use of equipment below the Ordinary High Water Mark (OHWM) shall be limited to that necessary to gain position for work.
10. All equipment operating within and over state waters shall utilize only vegetable-based biodegradable hydraulic fluid.
11. All construction equipment shall be clean and inspected daily before use to ensure that the equipment is free from external petroleum products and has no fluid leaks.
12. Accumulation of soils or debris shall be removed from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to its working below the OHWM.
13. Machinery and equipment used during construction shall be serviced, fueled, and maintained on uplands in a confined area in order to prevent contamination to waters of the state. Fueling areas shall be provided with adequate spill containment.
14. Staging area will be located a minimum of 50 feet and, where practical, 200 feet from waters of the state (including wetlands), unless otherwise authorized by Ecology.
15. Wash water containing oils, grease, or other hazardous materials resulting from wash down of equipment or working area shall be contained for proper disposal, and shall not be discharged into state waters or storm drains.

Culvert /Temporary Diversion Structures/ Dewatering

16. All culvert replacement/installation shall be conducted in the dry or in isolation from surface waters.

17. Temporary cofferdams, sandbag dams to block culverts, floating turbidity curtains, and bypasses used to divert water around the work area shall be in place prior to initiation of work within the wetted perimeter.
18. The temporary diversion/bypass shall be of sufficient size, constructed of non-erosive materials, and installed to divert the entire flow through the bypass or around the isolated work area for the duration of the project.
19. The diversion system shall be designed and operated so as not to cause erosion in the channel or on the bank of the waterbody in which the work is being conducted.
20. Turbid dewatering water (including turbid water generated from cleaning and maintenance activities) shall not be discharged directly into waters of the state. Turbid water shall be pumped to an upland area to allow the turbid water to settle. The discharge from the upland areas shall meet water quality criteria at the point of discharge into surface waters and/or wetlands.
21. Dewatering water that is not turbid may be discharged directly to surface waters and/or wetland provided that: a) waste water containing raw concrete or other harmful material has not been in contact with the water to be discharged, and b) the water will meet **all of the water quality standards at the point of discharge**.
22. A sandbag revetment or similar device shall be installed at the bypass inlet to divert the entire flow through the bypass.
23. A sandbag revetment or similar device shall be installed at the downstream end of the bypass to prevent backwater from entering the work area.
24. Disturbance of the streambed and banks shall be limited to that necessary to place the culvert and any required channel modification associated with it. Affected streambed and bank areas outside the culvert and associated fill shall be restored to pre-project configuration following installation of the culvert. Within one year of project completion, the banks shall be re-vegetated with native or other approved woody species.
25. Culverts shall be installed to maintain structural integrity to the 100-year peak flow with consideration of the debris likely to be encountered.
26. The culverts shall be installed and maintained to avoid inlet scouring and prevent downstream bank erosion.
27. Prior to returning water flow to the work area, all bank protection measures shall be in place.
28. To minimize sediment releases, re-introduction of water into the isolated work area shall be done gradually, and at a rate not higher than the normal flow.
29. Upon completion of the project, all material used in the temporary bypass shall be removed from the site and the site returned to pre-project or improved conditions.

Concrete Work

30. Spill protection measures shall be in place prior to any concrete delivery near waters of the state.
31. If cast-in-place, wet concrete/grout shall be prevented from entering waters of the state. All forms for any concrete/grout structure shall be completely sealed off to prevent the possibility of fresh concrete entering waters of the state. Impervious materials shall be placed over any exposed concrete/grout.
32. Concrete/grout delivery systems shall be inspected daily to prevent any discharges to surface waters.
33. Concrete/grout process water shall not enter waters of the state. Any concrete or grout process/contact water discharged from a confined area with curing concrete/grout shall be routed to upland areas to be treated and disposed of properly with no possible entry to waters of the state.
34. Construction Conditions E.1. through E.15, E. 18 through E.24, and E.27 through E.30 of Order No. 12930 shall also apply to the Otter Creek Island Restoration Project.
35. All temporary structures placed to facilitate project construction for the Otter Creek Restoration project shall be removed and the area completely restored upon completion of project construction.

F. Habitat Compensation:

1. The Applicant shall compensate for habitat impacts through an agreement with the Cowlitz Tribe to provide funding to implement the *Otter Creek Island Restoration Project—Preliminary Basis of Design Report* prepared by Natural Systems Design for the Cowlitz Indian Tribe, dated January 30, 2015, per the JARPA submitted by BNSF on July 8, 2015.
2. The Applicant shall provide a copy of the signed agreement to the Federal Permit Manager per Condition A.2 of this Order prior to the start of project construction.

G. Wetland Compensatory Mitigation Conditions for Bank Use:

1. The Applicant shall mitigate wetland impacts as described in the *Updated Wetland Mitigation Bank Use Plan, Task 5—Infrastructure Improvements (Kelso Martin's Bluff—New Siding)* (hereafter called the "Bank Use Plan") prepared by J.L. Patterson & Associates, Inc., updated June 29, 2015, or as revised and approved by Ecology.
2. Prior to impacting wetlands, the Applicant shall submit to Ecology (per condition A.2 of this Order) documentation from the bank sponsor verifying the purchase of 3.94 wetland mitigation bank credits (credits) from the Coweeman River Wetland Mitigation Bank.

This documentation must include the Order number, Order issuance date, impact acreage, number of credits required by the Order, and date of credit purchase.

3. The Applicant shall notify Ecology (per Condition A.2 above) of any changes to the amount of wetland impacts or revision of the Bank Use Plan.
4. If the applicant does not complete the purchase of mitigation bank credits before the impacts to wetlands occur, temporal losses will be assessed at the rate of 0.417% per month for Category III impacts and 0.625% per month for Category II impacts.
5. If the credits are not purchased by July 1, 2016, the Applicant shall implement the permittee-responsible mitigation plan as described in Section H of this Order, below.

H. Wetland Compensatory Mitigation Conditions for Permittee-Responsible Mitigation:

1. If the Applicant has not purchased the required credits from the Coweeman Wetland Mitigation Bank by July 1, 2016, the Applicant shall immediately notify Ecology and mitigate wetland impacts as described in the *Contingency Plan: Permittee-Responsible Mitigation Task 6—Infrastructure Improvements (Kelso Martins Bluff—Kelso to Longview Jct.)* Corps Reference No. NWS-2013-1152 *Task 5—Infrastructure Improvements (Kelso Martins Bluff—New Siding)* Corps Reference No. NWS-2014-416 (hereafter called the “Mitigation Plan”) prepared by Shannon & Wilson, Inc., and dated June 2015, or as modified by this Order or revised and approved by Ecology.
2. The Applicant shall submit any changes to the Mitigation Plan in writing to Ecology (per Condition A.2) for review and approval before work begins.
3. The Applicant shall get review and written approval from Ecology of any plan changes required if problems arise during construction and planting of the wetland mitigation site.
4. The Applicant shall have a wetland professional at the wetland mitigation site to supervise during construction and planting.

Implementation

5. If the permittee-responsible mitigation site cannot be completed within 13 months of the date of this Order, temporal losses will be assessed at a rate of 0.417% per month for Category III impacts and 0.625% per month for Category II impacts until the mitigation has been constructed.
6. If the permittee-responsible mitigation sites cannot be completed within 13 months of the date of this Order, the Applicant shall inform Ecology, in writing, of the status of the
 - a. BNSF Task 5, Infrastructure Improvements, (Kelso Martin’s Bluff—New Siding) Project, and
 - b. Coweeman River mitigation site

With the:

- c. Reason for the delay, and
- d. Expected date of completion.

The Applicant shall submit an updated written notification every 12 months thereafter until the BNSF Task 5, Infrastructure Improvements, (Kelso Martin's Bluff-New Siding) Project and the Coweeman River mitigation site are complete.

7. The Applicant shall ensure that all excess excavated site material is disposed of in an appropriate location outside of wetlands and their buffers and above the 100-year floodplain at the wetland mitigation site.
8. The Applicant shall ensure that no material is stockpiled within existing wetlands or their buffers at the wetland mitigation site at any time, unless provided for in the Ecology-approved Mitigation Plan.
9. The Applicant shall ensure that no construction debris is deposited within existing wetlands or their buffers at the wetland mitigation site at any time, unless provided for in the Ecology-approved Mitigation Plan.
10. The Applicant shall not use polyacrylamide at the mitigation site.
11. The Applicant shall not use hay or straw on exposed or disturbed soil at the mitigation site.
12. 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. Applicators are required to be permitted under Ecology's Noxious Weed Control Permit. Applicators shall comply with all conditions of the Noxious Weed Control Permit.
13. If weed-barrier fabric is used on the site, the Applicant shall use only permeable, fully biodegradable, non-toxic weed-barrier fabric for entire-site and/or individual-plant weed control. Non-biodegradable plastic weed-barrier fabric 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.
14. If seeding is used as a BMP for temporary erosion control, it must be a seed mix consisting only of native, annual, non-invasive plant species.
15. Upon completion of site grading and prior to planting, the Applicant shall submit to Ecology written confirmation, from a surveyor or project engineer, that the finished grades are consistent with the approved Mitigation Plan or subsequent Ecology-approved plan changes. The confirmation should indicate how final elevations were determined. The written confirmation can be in the form of an email or signed letter.

16. After completing construction and planting of the mitigation site, 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. Include one hard copy and one electronic file.
 - b. Include the information listed in Attachment B (Information Required for As-built Reports).
 - c. Include documentation of the recorded legal mechanism required in Condition G.17.
17. If by July 1, 2016, credits are not purchased and the Permittee-Responsible Mitigation Plan is implemented, the Applicant shall submit a draft conservation easement for the Coweeman mitigation site to Ecology for review by October 1, 2016. Upon receiving written Ecology approval of the conservation easement, the Applicant shall record the conservation easement, along with a copy of this Order and a site map indicating the location of mitigation site and its buffers. These documents must be recorded with the Cowlitz County Auditor.

Monitoring and Maintenance

18. The Applicant shall water and maintain all mitigation site plantings so as to meet the Mitigation Plan's performance standards as described in Appendix C of the Mitigation Plan. If an irrigation system is installed, it shall be removed by the end of year three unless permission is received in writing from Ecology to allow the system to remain for a longer period.
19. The Applicant shall monitor the mitigation site for a minimum of ten years. The Applicant shall use the monitoring methods described in Appendix D of the Mitigation Plan.
20. The Applicant shall submit to Ecology (per Condition A.2) monitoring reports documenting mitigation site conditions for years 1, 2, 3, 5, 7, and 10. The monitoring reports must:
 - a. Be submitted by December 31 of each monitoring year. Include one hard copy and one electronic file.
 - b. Include the information listed in Attachment C (Information Required for Monitoring Reports).
21. The Applicant shall implement the Mitigation Plan's contingency measures if the Mitigation Plan's goals, objectives, or performance standards are not being met.
22. Prior to implementing contingency measures not specified in the Mitigation Plan, the Applicant shall consult with and obtain written approval from Ecology for the changes.

23. When necessary to meet the performance standards, the Applicant shall replace dead or dying plants with the same species, or an appropriate native plant alternative, during the first available planting season and note species, numbers, and approximate locations of all replacement plants in the subsequent monitoring report.
24. 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.
25. At the end of the monitoring period, the Applicant shall use the 2014 Washington State Wetlands Rating System for Western Washington (or updated version) to rate all wetlands (except those that have been preserved) and include the information in the monitoring report.
26. If the Applicant has not met all conditions, including performance standards, for the mitigation site, by the end of the monitoring period, Ecology may require additional monitoring, additional mitigation, or both.
27. Until the Applicant has received written notice from Ecology that the Mitigation Plan has been fully implemented, the Applicant's obligation under Condition G.1 and/or Condition H.1 to mitigate for wetland impacts is not met.

F. Emergency/Contingency Measures:

1. The Applicant shall develop and implement a Spill Prevention and Containment Plan for all aspects of this project.
2. The Applicant shall have adequate and appropriate spill response 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 waters of the state.
4. Any work that is out of compliance with the provisions of this Order, or conditions causing distressed or dying fish, or any discharge of oil, fuel, or chemicals into state waters, including wetlands, or onto land with a potential for entry into state waters, is prohibited. If these occur, the Applicant or operator shall immediately take the following actions:
 - a. Cease operations that are causing the compliance problem.
 - b. Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.
 - c. In the event of finding distressed or dying fish, the applicant shall collect fish specimens and water samples in the affected area within the first hour of the event.

These samples shall be held in refrigeration or on ice until the applicant is instructed by Ecology on what to do with them. Ecology may require analyses of these samples before allowing the work to resume.

- d. 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.
 - e. 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 Southwest Federal Permit Manager at (360) 407-6926 or (360) 407-6300.
 - f. Submit a detailed written report to Ecology's Federal Permit Manager 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.
5. **All Emergency/Contingency Measures of Order No. 12930 shall also apply to the Otter Creek Habitat Mitigation Site.**

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.

