



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

June 30, 2006

REGISTERED MAIL
RB 670 437 721 US

BNSF Railway Company
Attn: Walter Smith
2454 Occidental Avenue South
Seattle, WA 98134

RE: Water Quality Certification Order #3306 and Coastal Zone Management Consistency Determination for BNSF Railway Company to Construct Railroad Track Improvements between North Blue Ridge in Seattle, King County, and Howarth Park in Everett, Snohomish County, Wetlands and Puget Sound, Washington. U.S. Army Corps of Engineers Reference #200501045

Dear Mr. Smith:

On September 8, 2005, BNSF Railway Company (BNSF), submitted a Joint Aquatic Resources Permit Application (JARPA) to the Department of Ecology (Ecology) for a Section 401 Water Quality Certification (401 Certification) under the federal Clean Water Act (CWA) for the proposed Everett-to-Seattle Commuter Rail project. The project proposes to replace approximately 3.8 miles of second main track in two locations, construct four train-switching mechanisms (universal crossovers), and associated access and signal upgrades. BNSF requests certification under CWA Section 401 for two separate CWA Section 404 Permits. The U.S. Army Corps of Engineers (Corps) issued a Section 404 Nationwide Permit (NWP) #14, Linear Transportation Projects, under Corps Reference #200600111 for a portion of the project that involves fill of 0.37 acre of freshwater wetland fill on March 31, 2006. The Corps issued a public notice (200501045) on May 9, 2006, for individual Section 404 and Section 10 Permits for the remainder of the project not covered by the NWP. The enclosed Order serves as Ecology's 401 Certification decision on both Section 404 Permits requested from the Corps and shall apply equally to those Corps Permits.

On behalf of the State of Washington, through the enclosed Order, Ecology certifies that the work described in the JARPA, NWP #14, and the May 9, 2006, 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.

On January 9, 2006, BNSF submitted a Coastal Zone Management Act Consistency Analysis and Determination. Pursuant to Section 307(c)(3) of the Coastal Zone Management Act of 1972 as amended, Ecology concurs with BNSF's determination that the proposed work is consistent

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Walter Smith
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with the Washington State Coastal Zone Management Program (CZMP). This concurrence is based upon BNSF's compliance with all applicable enforceable policies of the CZMP, including Sections 401 and 402 of the CWA.

This letter also serves as the State response to the Corps of Engineers' May 9, 2006, Public Notice.

If you have any questions, please contact Rebekah Padgett at (425) 649-7129, or by e-mail at rpad461@ecy.wa.gov. The enclosed Order may be appealed by following the procedures described in the Order.

Sincerely,



Geoff Tallent
Northwest Regional Office
Shorelands and Environmental Assistance Program

GT:rrp:cja

Enclosure

cc: Jack Kennedy, U.S. Army Corps of Engineers
Laura Praye, Washington Department of Fish and Wildlife
Chad Unland, Washington State Department of Natural Resources
Chris Townsend, Sound Transit
Andrea LaTier, U.S. Fish and Wildlife Service
Bob Donnelly, NOAA Fisheries
Tom Sibley, NOAA Fisheries
Mayor Carla A. Nichols, Town of Woodway
Allan Giffen, City of Everett
Mary Cunningham, City of Everett
Heather McCartney, City of Mukilteo
Robert Chave, City of Edmonds
Stephan Clifton, City of Edmonds
Craig Ladiser, Snohomish County Planning & Development Services
Diane Sugimura, City of Seattle DPD
Matt Torpey, City of Shoreline
David Lee
Joan Cabreza, U.S. Environmental Protection Agency
Gary Voerman, U.S. Environmental Protection Agency

e-cc: Penny Keys – HQ
Loree Randall – HQ
David Pater – NWRO
Erik Stockdale – NWRO
Bob Penhale – NWRO
Sheila Hosner – Office of Regulatory Assistance

IN THE MATTER OF GRANTING A)	ORDER #3306
WATER QUALITY)	Corps Reference No. #200501045
CERTIFICATION TO)	Construct Railroad Track Improvements between
BNSF Railway Company)	North Blue Ridge in Seattle, King County, and
in accordance with 33 U.S.C. 1341)	Howarth Park in Everett, Snohomish County,
(FWPCA § 401), RCW 90.48.120, RCW)	Wetlands and Puget Sound, Washington.
90.48.260 and Chapter 173-201A WAC)	

TO: BNSF Railway Company
 Attn: Walter Smith
 2454 Occidental Avenue South
 Seattle, WA 98134

On September 8, 2005, BNSF Railway Company (BNSF), submitted a Joint Aquatic Resources Permit Application (JARPA) to the Department of Ecology (Ecology) requesting a Section 401 Water Quality Certification (401 Certification) under the federal Clean Water Act for the proposed Everett-to-Seattle Commuter Rail project. A public notice regarding the proposed project was distributed by the U.S. Army Corps of Engineers (Corps) pursuant to the provisions of Chapter 173-225 WAC on May 9, 2006.

The aquatic resource impacts from the proposed project extend from North Blue Ridge in Seattle, King County, to Howarth Park in Everett, Snohomish County. The overall project involves establishing a continuous set of double railroad tracks within the 30-mile corridor.

The proposed work includes:

- North Blue Ridge Intermediate Signal (milepost 11.8, City of Seattle, King County, Section 26, Township 26N, Range 3E): Installation of a new bungalow, signal and retaining wall. Fill less than 0.01 acre freshwater wetlands.
- South Richmond Beach Intermediate Signal (milepost 13.1, City of Shoreline, King County, Section 11, Township 26N, Range 3E): Installation of a new signal, bungalow, and retaining wall. Fill less than 0.01 acre freshwater wetlands.
- Richmond Beach Control Point (between mileposts 13.9 and 14.7, City of Shoreline, King County, Section 2, Township 26N, Range 3E): Installation of a universal crossover between two existing parallel sets of railroad tracks, new signals at each end, an access road, a retaining wall, and a signal bungalow. Work includes shifting the mainline tracks slightly to accommodate the crossover. Fill approximately 0.25 acre freshwater wetlands.
- Edmonds Double-Track Mainline (between mileposts 15.5 and 17.9, between Point Wells in Woodway and the central waterfront in Edmonds, Snohomish County, Sections 23, 24, 26, 35, Township 27N, Range 3E): Installation of a replacement second mainline track

adjacent to the existing single mainline track. Work includes excavation of a wetland to relocate an existing drainage ditch, fill to accommodate a trainman's walk and foundations for a signal and bungalow, riprap armoring and a 10- to 30-foot-wide toe to resist scouring from wave action in Puget Sound, and extending four fish-bearing culverts by up to 25 feet. Fill 1.38 acres below Mean Higher High Water (MHHW) on marine and intertidal areas, temporary disturbance of 1.19 acres of beach area during construction, and 0.15 acre freshwater wetland impact.

- Edmonds Control Point (between mileposts 18.5 and 18.8, north of downtown Edmonds, Snohomish County, Section 13, Township 27N, Range 3E): Installation of a universal crossover between two existing parallel sets of tracks. Work includes placement of signals at each end of the crossover, a new signal bungalow, and a gravel access road and retaining wall. Fill approximately 0.04 acre freshwater wetlands.
- Picnic Point Control Point (between mileposts 23.8 and 24.0, south of Mukilteo, Snohomish County, Section 29, Township 28N, Range 4E): Installation of a universal crossover between two existing parallel sets of railroad tracks. Work includes placement of signals at each end of the crossover, a new signal bungalow, a gravel trainman's walkway, and a retaining wall. Impact approximately 0.07 acre freshwater wetlands.
- Mukilteo Double-Track Mainline (between mileposts 26.8 and 29.2, between south of Mukilteo State Park to north of downtown Mukilteo, Snohomish County, Section 9, Township 28N, Range 4E): Replace portion of second mainline track and relocate double-track. New track involves construction in Puget Sound over fill with a concrete gravity block retaining wall above extreme high water level. Work includes lengthening one culvert carrying a stream that by be fish-bearing by 20 feet, installation of a universal crossover, rearrangement of several track switches, and placement of signals at each end of the universal crossover. Construction of the second mainline will be barge-based. Fill approximately 2.36 acres below MHHW in marine and intertidal areas and disturb approximately 2.14 acres of additional beach area during construction.

A total of approximately 0.52 acre of freshwater wetlands will be impacted and a total of approximately 3.74 acres of fill in marine and estuarine habitat below MHHW.

Mitigation for the impacts to freshwater wetlands and marine/estuarine areas includes:

- Remove an approximately 1.5-acre over-water boathouse facility, the Meadowdale Marina, 16111 76th Place West, Edmonds, Snohomish County, Puget Sound, WRIA #8. The existing structure is a wood and concrete structure standing in the intertidal area. The approximately 256-foot by 160-foot timber dock is supported on creosote-treated timber piles, with an approach pier that is approximately 20 feet wide by 198 feet long. The cast-in-place concrete dock, with concrete pile cap/beams supported on pre-cast concrete piles is approximately 86 feet by 254 feet.

Approximately 277 treated wood piles and 84 concrete piles will be removed from the intertidal area as part of this work.

- Purchase 14.9 acres adjacent to the Qwuloolt Project, in partnership with the Natural Resource Trustees of that project. The purchase of 14.9 acres of floodplain and buffer as compensatory mitigation will facilitate the restoration of estuarine processes to over 300 acres and to restore natural hydrologic connection to two stream systems, a larger project being completed at the Qwuloolt marsh restoration project site along Ebey Slough, Marysville, Snohomish County, Snohomish River estuary, WRIA #7.
- Reduce the slope of the revetment in order to reduce reflected wave energy.
- Repair a clogged culvert at Deer Creek near Edmonds, in order to increase natural flow and sediment transport to the beach.
- Remove non-functional culverts on Deer Creek upstream of the tracks to allow the creek to return to its natural channel.
- Construct a new box culvert beneath the railway track on Willow Creek in Edmonds, to convey creek and tidal flows. This will allow for future day lighting of Willow Creek (by others) upstream of the tracks, improving fish access to the Edmonds Marsh.
- Reconnect two estuarine lagoons to re-establish hydrologic connectivity and expand fish refuge in Woodway. Work includes removal of landslide debris which separates the lagoons.
- Restore temporarily-affected beach to pre-construction conditions or better.

AUTHORITIES:

In exercising authority under 33 U.S.C. § 1341, 16 U.S.C. § 1456, 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 activity 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:

- A1. For purposes of this Order, the term "Applicant" shall mean BNSF Railway Company, and its agents, assignees and contractors.
- A2. For purposes of this Order, all submittals required by its conditions shall be sent to Ecology's Northwest Regional Office, Attn: 401/CZM Federal Project Manager, 3190 160th Avenue SE, Bellevue, WA 98008-5452. Any submittals shall reference Order #3306 and Corps Reference #200501045.
- A3. Work authorized by this Order is limited to the work described in the JARPA received by Ecology on September 8, 2005. 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.
- A4. Within 30 days of receipt of an updated JARPA, 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.
- A5. This Order shall be rescinded if the Corps does not issue an individual 404 permit.
- A6. This Order does not exempt, and is provisional upon, compliance with other statutes and codes administered by federal, state, and local agencies.

- A7. Copies of this Order shall be kept on the job site and readily available for reference by Ecology personnel, the construction superintendent, construction managers and lead workers, and state and local government inspectors.
- A8. 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.
- A9. 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.
- A10. The Applicant shall ensure that all appropriate project engineers and contractors at the project site have read and understand relevant conditions of this Order and all permits, approvals, and documents referenced in this Order. The Applicant shall provide Ecology a signed statement (see Attachment A for an example) from each project engineer and contractor that they have read and understand the conditions of this Order and the above-referenced permits, plans, documents and approvals. These statements shall be provided to Ecology before construction begins at the project or mitigation sites.
- A11. 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.
- A12. Any person who fails to comply with any provision of this Order shall be liable for a penalty of up to ten thousand dollars (\$10,000) per violation for each day of continuing noncompliance.

B. In-Water Construction Water Quality Conditions:

- B1. Water quality criteria contained in WAC 173-201A-030(1) and WAC 173-201A-040 shall apply to this project, unless otherwise authorized by Ecology. This Order does not authorize temporary exceedances of water quality standards beyond the limits established in WAC 173-201A-110(3).
- B2. Water quality shall be protected and water quality monitoring for this project shall be completed as described in the following document, except as modified by this Order, and including any approved revisions:

- a. *Water Quality Protection Plan, Sounder Commuter Rail--Everett-to-Seattle, Third Easement*, prepared by BNSF Railway Company and Central Puget Sound Regional Transit Authority with assistance from Herrera Environmental Consultants, Inc., dated August 2005 [hereinafter referred to as the "Water Quality Protection Plan"].
- B3. Prior to the commencement of any construction, the Applicant shall submit to Ecology for its review and written approval a final Water Quality Protection Plan which includes any changes or additions required by this Order. "In-water construction" is defined as all work below the ordinary high water mark (OHWM) of Puget Sound and Possession Sound. Ecology may require changes and modifications to the Plan. The Plan shall include the following minimum requirements:
- a. Locations of samples: Locations of water quality sampling sites shall be identified and described in the plan and on a map of the project area. At a minimum, sampling shall take place at the point of compliance as specified in WAC 173-201A-110(3), which allows a 150 foot temporary mixing zone for turbidity resulting from disturbance of in-place sediments in Puget Sound and Possession Sound. Background samples shall be collected outside the area of influence of the inwater work. Background samples shall be collected at the same frequency as the point of compliance samples.
 - b. Number of samples: Samples shall be collected a minimum of every two (2) hours throughout the first day of in-water construction activity. Subsequent sampling is dependent on monitoring results, but shall be a minimum of three (3) times per day during in-water activity if no exceedances are detected. Additional sampling may be required if turbidity exceedances are observed or measured to be above the temporary mixing zone criteria of WAC 173-201A-110(3).
 - c. Parameter to be sampled: Turbidity shall be sampled for this project.
 - d. Equipment: Sampling for turbidity is to be accomplished using a turbidometer properly calibrated according to the operator's manual.
 - e. Detection of exceedances: Water quality standards for turbidity in Class AA waters are as follows: turbidity shall not exceed 5 NTU over background turbidity when the background turbidity is 50 NTU or less, or have more than a 10 percent increase in turbidity when the background turbidity is more than 50 NTU. If exceedances of this standard at the point of compliance specified in WAC 173-201A-110(3) are detected through water quality sampling and monitoring, the Applicant shall immediately take action to stop, contain, and prevent unauthorized discharges or otherwise stop the violation and correct the problem. After such an event, the Applicant shall assess the efficacy of the site Best Management Practices (BMPs) and update or improve the

BMPs used at the work site in an effort to reduce or prevent recurrence of the turbidity exceedance.

- f. Reporting: If no exceedances are detected, results of water quality sampling, as determined by the Water Quality Protection Plan, shall be forwarded to Ecology on a monthly basis in accordance to Condition A2.
 - g. Notification of exceedances: Notification of exceedances that are detected through water quality sampling shall be made to Ecology within 24 hours of occurrence. Notification shall be made with reference to Order #3306, Attn: 401/CZM Federal Project Manager, by telephone at (425) 649-7129 or (425) 649-7000, or by fax to (425) 649-7098. The Applicant shall, at a minimum, provide Ecology with the following information:
 - i. A description of the nature and cause of non-compliance, including the quantity and quality of any unauthorized discharges;
 - ii. The period of non-compliance, including exact dates, duration, and times and/or the anticipated time when the Applicant will return to compliance; and
 - iii. The steps taken, or to be taken, to reduce, eliminate, and prevent recurrence of the non-compliance.
 - iv. In addition, within five (5) days after notification of an exceedance, the Applicant shall submit a written report to Ecology that describes the nature of the violation, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, photographs, and any other pertinent information.
- B4. Project activities shall be conducted to minimize siltation of the beach area and bed.
- C. Project Mitigation Conditions for Wetlands and Waters of the State:**
- C1. Mitigation for impacts to wetlands and waters of the state caused by this project shall be completed as described in the following document, except as modified by this Order, and including any approved revisions:
 - a. *Conceptual Nearshore Marine, Estuarine, and Wetland Mitigation Plan, Everett-to-Seattle Commuter Rail Project Third Easement, King and Snohomish Counties, Washington*, prepared by Herrera Environmental Consultants for Sound Transit and BNSF Railway Company, dated August 2005 [hereinafter referred to as the "Mitigation Plan"].

- C2. Prior to the commencement of any construction the Applicant shall submit to Ecology for its review and written approval a final mitigation and monitoring plan, which includes any changes or additions required by this Order.
- C3. In addition to mitigation measures described in the above-referenced document, the following requirements shall be conditions for all mitigation sites:
- a. Pre-construction Meeting: The Applicant's ecologist assigned to oversee wetland and nearshore habitat mitigation implementation shall be present at any pre-construction meeting(s) for the project.
 - b. Timing: The Mitigation Plan shall be implemented concurrently with or within one (1) growing season following the site construction, or as stipulated in the contingency section of this order.
 - c. Record Report and Drawings: A report documenting the final design of the mitigation areas shall be prepared when site construction and planting is completed. The report shall include the following:
 - Vicinity map showing site access;
 - Drawings that clearly identify the boundaries of the mitigation areas;
 - Photographs of the area taken from permanent reference points;
 - Locations of photo-points, sampling and monitoring sites; and
 - An analysis of any changes to the mitigation plan that occurred during construction.

A copy of the Record Report shall be sent to Ecology's 401/CZM Federal Project Manager within 60 days of completing construction, unless an extension is obtained from Ecology. The mitigation monitoring period shall commence with Ecology's acceptance of the Record Report.

- d. Field Supervision: The mitigation implementation shall be field-supervised by a qualified ecologist to ensure plants are appropriately placed.
- e. Permanent Protection: The Applicant shall provide documentation showing the completion of the permanent protection measures as specified in the Mitigation Plan and as described below to Ecology's 401/CZM Federal Project Manager.

The Applicant shall place conservation easements or restrictive covenants on the deeds for the mitigation sites to ensure that the sites are protected in perpetuity. Documentation of the protective measures shall be submitted to Ecology per condition A2 within six (6) months of completion of the mitigation work.

Any changes to the conservation easements or restrictive covenants shall require written approval by Ecology.

Violation of any term of the conservation easements/restrictive covenants shall be considered a violation of this Order.

- f. Performance Standards: The performance standards for the wetland mitigation shall be as listed in the Mitigation Plan. The performance standards specify how the goals and objectives of the Mitigation Plan are to be measured. The Mitigation Plan details nine objectives for the mitigation measures, with specific performance standards for each.
- g. Contingency Measures: The Applicant is responsible for the success of the mitigation measures described in the Mitigation Plan. The Applicant will:
 - i. Complete contract drawings and specifications of the Meadowdale Marina dock demolition and complete purchase of the property prior to March 31, 2007. This is in anticipation of the July 2007 to February 2008 construction window for in-water work for the demolition.
 - ii. If the Meadowdale Marina dock purchase and demolition are not completed by March 31, 2007, the Applicant shall submit to Ecology for its review and written approval a plan for alternative mitigation which could include log raft lease retirement in the lower Snohomish estuary, or other nearshore habitat restoration of equal functional value. The Nearshore Habitat Alternative Mitigation Plan shall be submitted to Ecology by March 31, 2007.
 - iii. Demolition of the Meadowdale Marina dock shall be completed by February 29, 2008, as outlined in the Mitigation Plan starting on page 72.

The Applicant shall remove all human-placed debris (e.g., concrete rubble) from the area under and adjacent to the Meadowdale Marina mitigation site in order to restore the natural characteristics of the nearshore environment.
 - iv. Purchase of the Hendrickson, Rose, and Roberts properties shall be completed by December 31, 2007. Written verification of the purchase of these properties shall be submitted to Ecology within 14 days of completion.
 - v. If the purchase of the Hendrickson, Rose, and Roberts properties (totaling 14.9 acres) is completed by December 31, 2007, but the Qwuloolt Restoration Project is not permitted by March 31, 2008, the Applicant shall design an alternative estuarine restoration project on the Hendrickson, Roberts and adjacent properties.

If an alternative estuarine restoration project is required, the Applicant shall initiate timely consultation with Ecology regarding such project and provide Ecology with an Estuarine Habitat Restoration Plan for its review and written approval. If construction of the Qwuloolt Restoration Project is not initiated by February 28, 2009, the Applicant shall complete construction of the estuarine habitat restoration project on the Hendrickson, Roberts, and adjacent properties by December 31, 2009.

Consultation on the alternative estuarine habitat restoration project shall also include the development and implementation of a Monitoring Plan for such project. The Monitoring Plan shall be submitted to Ecology for review and approval 60 days prior to beginning construction. Copies of all monitoring reports shall be submitted to Ecology's 401/CZM Federal Project Manager.

- vi. If the Hendrickson, Rose, and Roberts properties are not purchased by December 31, 2007, the Applicant shall coordinate with Ecology to identify an alternative restoration project in the lower Snohomish estuary approximately six (6) to ten (10) acres in size.
- C4. The Applicant shall avoid eelgrass beds during construction. Placement of derrick anchors (or spuds) in areas designated as eelgrass beds is prohibited. Eelgrass beds shall not be shaded for more than three (3) consecutive days during peak growing times (i.e., May through August).
- C5. Prior to initiating construction activities, a qualified consultant shall mark the edge of the eelgrass habitat with temporary buoys within the barge work corridors.
- C6. Floating cable and floats shall be used to prevent anchor chains from touching bottom in the nearshore intertidal habitat areas and to prevent scouring impact on eelgrass beds.
- C7. The Applicant shall minimize the number of barge trips into the shoreline area in order to prevent propeller scour and impacts to eelgrass, kelp, and benthic habitat.
- C8. In areas with kelp, eelgrass, or macroalgae populations, barges shall be restricted to tidal elevations adequate to prevent grounding of the barge.
- C9. If kelp, eelgrass, or macroalgae beds are present, vessel operation shall be restricted to tidal elevations adequate to prevent propeller-related damage to vegetation.
- C10. The Applicant shall use shallow-draft, small-bladed tugboats and position tugboats so as to minimize propeller scour and direct propellers at angles parallel or oblique to the shore whenever practical in order to avoid impacts to eelgrass beds.

- C11. Minimal propulsion power shall be used when maneuvering barges between Mean Lower Low Water (MLLW) and the -16.0 tidal elevation (MLLW=0.0) for the protection of eelgrass habitat.
- C12. Barges shall be winched toward the shoreline during high tides and as the tide goes out, the barges shall be winched to an area outside the intertidal area.
- C13. The Applicant shall submit two (2) copies of the following reports to Ecology within one (1) month following the date data was last collected during that reporting period:
- a. Pre-construction baseline eelgrass surveys;
 - b. Post-construction eelgrass surveys, conducted at the same time of year as the pre-construction baseline eelgrass survey;

The eelgrass/macroalgae habitat surveys shall be conducted per standard Washington Department of Fish and Wildlife (WDFW) guidelines unless alterations prepared by a qualified biologist are reviewed and approved by Ecology.

- C14. If eelgrass beds are found to be damaged after construction, an Eelgrass Planting and Monitoring Plan shall be developed and implemented, subject to review and approval by Ecology. Two (2) copies of the Plan shall be submitted to Ecology within 90 days of completion of the post-construction eelgrass surveys. The Eelgrass Planting and Monitoring Plan will stipulate at least ten (10) years of monitoring of planted eelgrass.

D. Conditions for In-Water and Over-Water Construction Activities:

General Conditions:

- D1. Work shall be accomplished per the *Water Quality Protection Plan, Sounder Commuter Rail—Everett-to-Seattle, Third Easement*, prepared by BNSF Railway Company and Central Puget Sound Regional Transit Authority, dated August 2005; *Joint Aquatic Resource Application, Everett-to-Seattle Commuter Rail Project—Third Easement*, dated August 30, 2005; and *Everett-to-Seattle Final Environmental Impact Statement, Commuter Rail Project*, dated December 1999, except as modified by this Order, including the following:
- a. Petroleum spill containment materials shall be deployed in the water surrounding active work barges at all times.
 - b. Only barges with low walls or other containment devices around the perimeter of the barge shall be used for storage of dewatering discharges and excavated sediments in

order to prevent and minimize sediments and turbid waters from entering marine water.

- c. Clamshell-type dredges used to transfer construction fill to shore shall only be operated when the clamshell is completely closed in order to prevent fill material from entering marine water.
- D2. During construction, contaminated sediments and soils shall not be used as backfill material.
- D3. All construction debris shall be properly disposed of on land so that it cannot enter a waterway or cause water quality degradation to state waters.
- D4. 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.
- D5. Construction material shall be stockpiled away from the shoreline/stream areas, on rail cars, or on the upland side of railroad tracks.
- D6. Removal or destruction of overhanging bankline vegetation shall be limited to the minimum necessary for the construction of the project.
- D7. All natural habitat features on the beach larger than 12 inches in diameter, including trees, stumps, and logs, shall be retained on the beach following construction. These habitat features may be moved during construction, if necessary.

Work in Marine Waters:

- D8. During construction, a containment boom and absorbent pads shall be placed around the perimeter of the work area to capture wood debris and other materials released into the waters as a result of construction activities. All accumulated debris shall be collected and disposed of upland at an approved disposal site.
- D9. During removal of the Meadowdale Marina structures and piling, the Applicant shall have a boat available on site at all times to retrieve debris from the water.
- D10. The Applicant shall use tarps or other containment methods when cutting or drilling over water to prevent sawdust and other materials from entering the water.
- D11. All manmade debris that has been deposited on the beach within the construction work corridor shall be removed and disposed of upland such that it does not enter waters of the state. Abandoned concrete pipes, miscellaneous concrete slabs, and angular rocks in the

- construction work corridor that have washed into intertidal areas shall be removed from the beach.
- D12. All manmade debris in the lagoons shall be removed and disposed of upland such that they do not enter waters of the state (e.g., creosote railroad ties and logs, treated wood debris, and railroad tracks).
- D13. Base rocks shall be buried a minimum of 18 inches below the pre-project natural beach grade.
- D14. Rock for the bulkhead shall be composed of clean, angular material of a sufficient durability and size to prevent its being broken up or washed away by high water or wave action.
- D15. All upland drainage tightlines shall be incorporated into the bulkhead near beach grade to prevent erosion of the shoreline.
- D16. Project activities shall not occur when the project area, including the work corridor, is inundated by tidal waters.
- D17. Any clay fines located on the beach or near the top layers of sediment shall be disposed of at an upland disposal site.
- D18. All trenches, depressions, or holes created in the beach area shall be backfilled prior to inundation by tidal waters. Trenches excavated for base rocks may remain open during construction. However, fish shall be prevented from entering such trenches.
- D19. If cast in place, wet concrete/grout shall be prevented from entering waters of the state. Forms for any concrete/grout structure shall be constructed to prevent leaching of wet concrete/grout. Impervious materials shall be placed over any exposed concrete/grout not lined with the forms that will come in contact with state waters. Forms and impervious materials shall remain in place until the concrete/grout is cured.
- D20. A silt curtain shall enclose the construction area where possible to contain re-suspension of sediments into the water column.
- D21. The Applicant shall key in riprap to ensure structural stability and minimize potential juvenile salmonid predatory habitat.
- D22. The Applicant shall provide adequate roughness of the revetment to further reduce erosive wave energy on the beach.

- D23. At the end of each revetment segment along Puget Sound, the Applicant shall slope the revetment to be flattened, producing a somewhat bulb-shaped footprint in order to increase shallow water habitat which will dissipate wave energy and protect the ends of the revetment.

Piling Removal Conditions:

- D24. All piling shall be removed by vibratory extraction. In the event pilings break off during extraction, the remaining piling may be removed by using a clamshell bucket or a chain.
- D25. Work surface on the barge deck shall include a containment basin for piles and any sediment removed during pulling of the piling. Basins may be constructed of durable plastic sheeting with sidewalls supported by hay bales or support structure to contain all sediment.
- D26. All existing creosote-treated pilings shall be completely extracted, removed from marine waters, and disposed of at an approved upland disposal site. If the pilings are unable to be completely removed they shall be cut off at a minimum of two (2) feet below grade.
- D27. Piles removed from substrate: the pile shall be moved immediately from the water into the barge lined with filter fabric or straw bales around the perimeter. The pile shall not be shaken, hosed-off, left hanging to drip or any other action intended to clean or remove adhering material from the pile.

General Freshwater Conditions:

- D28. A temporary bypass to divert flow around the work area shall be in place prior to initiation of work in the wetted perimeter.
- D29. The bypass shall be of sufficient size to pass all expected flows and debris for the duration of the project.
- D30. Any device used for diverting water from a fish-bearing stream shall be equipped with a fish guard to prevent passage of fish into the diversion device. The pump intake shall be screened with 1/8-inch mesh to prevent fish from entering the system. The screened intake shall consist of a facility with enough surface area to ensure that the velocity through the screen is less than 0.4 feet per second. Screen maintenance shall be adequate to prevent injury or entrapment to juvenile fish and the screen shall remain in place whenever water is withdrawn from the stream through the pump intake.
- D31. A sandbag revetment or similar device shall be installed at the bypass inlet to divert the entire flow through the bypass.
- D32. Project activities shall not occur when the project area is inundated by tidal waters.

- D33. The Applicant shall capture and safely move food fish, game fish, and other fish life from the job site. The Applicant shall have fish capture and transportation equipment ready and on the job site. Captured fish shall be immediately and safely transferred to free-flowing water downstream of the project site. The Applicant may request WDFW assistance in capturing and safely moving fish life from the job site to free-flowing water, and assistance may be granted if personnel are available.
- D34. Wastewater from project activities and water removed from within the work area shall not be discharged directly to waters of the state. These waters shall be routed to an upland area for on-site settling or off-site disposal per the Construction Stormwater General Permit #WAR-007157 issued for this project
- D35. If high flow conditions that may cause siltation are encountered during this project, work shall stop until the flow subsides.
- D36. The use of equipment below the OHWM shall be limited to that necessary to gain position for work.
- D37. Equipment used for this project shall be free of external petroleum-based products while working around the stream. Equipment shall be checked daily for leaks and any necessary repairs shall be completed prior to commencing work activities along the stream.
- D38. Alteration or disturbance of the bank and bank vegetation shall be limited to that necessary to construct the project. Within seven (7) calendar days of project completion, all disturbed areas shall be protected from erosion using vegetation or other means. Within one (1) year of project completion, the banks, including riprap areas, shall be re-vegetated with native or other approved woody species.

Culvert Extensions at Stream Crossings:

- D39. The culvert removal and stream reconstruction shall be conducted in the dry or isolation from the stream flow by the installation of a bypass flume or culvert, or by pumping the stream flow around the work area. Care shall be taken so that the stream below the project area is never dewatered. At least half the flow of the stream shall be maintained in the downstream reach at all times.
- D40. The culvert extensions shall be installed and maintained to ensure unimpeded creek flow and fish passage.
- D41. The culvert extensions shall be installed to maintain structural integrity to the 100-year peak flow with consideration of the debris likely to be encountered.

- D42. Fill associated with the culvert extension installations shall be protected from erosion to the 100-year peak flow.
- D43. The culverts and extensions shall be installed and maintained to avoid inlet scouring and to prevent erosion of stream banks downstream of the project.
- D44. The culvert extensions shall not exceed 25 linear feet in total length.
- D45. Twelve (12) inches of material equivalent to the final beach material specifications shall be placed throughout the entire length of the finished culverts.
- D46. Disturbance of the streambed and banks shall be limited to the minimum necessary to place the culvert extensions and any required channel modifications associated with them. Affected streambed and bank areas outside the culverts and associated fill shall be restored to pre-project configuration following installation of the culverts. Within one (1) year of project completion, the banks shall be re-vegetated with native or other approved woody species.

Deer Creek Culvert Extension and Twin Culvert Removal and Stream Restoration:

- D47. The reconstructed Deer Creek channel shall, at a minimum, be similar in length, width, depth, floodplain configuration, and gradient, as the old channel. The channel shall incorporate fish habitat components, streambed materials, meander configuration, and native or other approved vegetation equivalent to or greater than that, which previously existed in the old channel.
- D48. Before water is diverted into the reconstructed channel, approved fish habitat components, streambed materials and bank protection to prevent erosion shall be in place. Fish habitat components and bank protection material shall be installed to withstand the 100-year peak flows.
- D49. The fish habitat log structures shall be of fir, cedar, or other approved coniferous species.
- D50. The fish habitat structures shall be placed so that they are within the OHWM.
- D51. An average of 12 inches deep of clean, rounded, uniformly-graded gravel with a size composition of:
- 15 percent of 4.0 to 3.0 inches;
 - 40 percent of 3.0 to 1.5 inches;
 - 45 percent of 1.5 to 0.25 inches, with fines less than 0.25 inches comprising at least 3.0 to 5.0 percent total volume, shall be placed throughout the reconstructed channel.

Weirs:

- D52. Weirs shall be installed in the dry or in isolation from the stream flow by the installation of a bypass flume, culvert or by pumping the stream flow around the work area.
- D53. Log weirs shall at least span the entire width of the stream between the OHWM as measured on each stream bank.
- D54. Weirs shall be installed to maintain structural integrity to the 100-year peak flow with consideration of debris likely to be encountered.
- D55. Fill associated with weir installations shall be protected from erosion to the 100-year peak flow.

E. Conditions for Upland Construction Activities:

- E1. Construction stormwater, sediment, and erosion control BMPs (*e.g.*, detention areas, filter fences, etc.) suitable to prevent exceedances of state water quality standards shall be in place before starting construction at the site, and shall also comply with all requirements of the NPDES Construction Stormwater General Permit #WAR-007157.
- E2. Direct discharge of construction stormwater to waters of the state (including wetlands) is prohibited. All stormwater from disturbed areas must be treated before discharge and/or managed on site.
- E3. The project shall be clearly marked/staked prior to commencing any construction activities. Clearing limits, travel corridors and stockpile sites shall be clearly marked. Sensitive areas to be protected from disturbance shall be delineated and marked with brightly colored construction fence, so as to be clearly visible to equipment operators. All project staff shall be trained to recognize construction fencing that identifies sensitive area boundaries (wetlands, streams, riparian corridors, buffers, etc.). Equipment shall enter and operate only within the delineated clearing limits, corridors and stockpile areas.
- E4. The Applicant shall prepare and submit a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the 401/CZM Federal Project Manager, in accordance with condition A2 above, and the requirements of Construction Stormwater General Permit #WAR-007157 issued for this project. This plan shall include prevention of pollution from sidecasting of materials during construction.
- E5. The Applicant shall establish and maintain a designated area for washing down equipment and vehicles so that wash waters are managed. Wash water containing oils, grease, or other hazardous materials resulting from wash down of equipment or working

areas shall not be discharged into state waters except as authorized by an NPDES permit or state waste discharge permit.

- E6. Vehicles shall be cleaned of mud, rock, and other material before entering a paved public roadway so that tracking of sediment onto the roadway does not occur.
- E7. Temporary mats will be used to further reduce impacts of construction equipment operating in lagoons.

F. Landslide Response Conditions:

- F1. The Applicant shall implement the Standard Operating Procedures (SOPs) in the following document:

BNSF Standard Operating Procedures for Emergencies Resulting From Natural Events, Near and In Jurisdictional Waters of the United States—Seattle Regulatory District Corps of Engineers, dated October 1999, or as amended.

Any disposal of landslide materials into waters of the state by the Applicant shall be done in accordance with the SOPs and the additional landslide information submitted to the Corps in condition F5.

- F2. The Applicant shall notify Ecology's 401/CZM Federal Project Manager within 24 hours of any discharges of landslide materials to waters of the state by fax at (425) 649-7098. The Applicant shall also notify Ecology's Environmental Report Tracker immediately by telephone at (425) 649-7229. The forms used to notify the Corps may be used as notification to Ecology.
- F3. The Applicant shall prepare the following landslide management information in support of Conditions F4 and F5:
 - a. Identify suitable upland disposal sites over which the Applicant has control;
 - b. Evaluate handling, removal, and disposal methods; and
 - c. Convene a multi-agency task force that includes at a minimum Ecology, WDFW, Washington Department of Natural Resources, and Sound Transit. The task force will make recommendations on the following:
 - i. Identify sensitive natural resources and habitat (e.g., eelgrass, shellfish beds, spawning areas, and critical habitat) within potential landslide areas. Existing data may be utilized provided that it reflects the existing conditions;

- ii. Identify where and how landslide materials may be beneficially disposed in nearshore areas; and
 - iii. Identify where and how landslide materials may be disposed in water.
- F4. The Applicant shall provide the following landslide management information to Ecology within 180 days of the date of this Order for review and comment:
- a. Preferred methods for handling of slide material;
 - b. Preferred methods and proposed sites for disposal of slide material; and
 - c. Reporting procedures
- F5. After Ecology review and comment, the Applicant shall provide the new landslide management information, data, and maps developed through Conditions F3 and F4 to the Corps as a supplement to the SOPs.

G. Sediment Sampling Conditions — Meadowdale Marina Mitigation Site:

- G1. The Applicant shall develop a sediment Sampling and Analysis Plan (SAP) and submit the SAP to Ecology for its review and approval 21 days before construction is scheduled to begin. Sampling shall not begin until Ecology provides written approval of the SAP.
- G2. The SAP shall contain, at a minimum, the following condition: The Applicant shall collect sediment samples from the footprint of the area being impacted by removal and construction activities. The purpose of such sampling is to ensure appropriate sediment quality to restore marine nearshore habitat for ecological function. If the surface sediment is found to be degraded, the Applicant shall take appropriate action, as approved by Ecology, to restore sediment quality to sediment management standards.
- G3. Construction shall not begin until sediment sampling results have been reviewed and analyzed by Ecology. Ecology may require additional measures for this work based on the results of this sediment sampling.
- G4. Sampling Data Submittal – Sediments**
- a. Sediment sampling data for all required fields listed in the current version of SEDQUAL (Sediment Quality Information System) shall be submitted to Ecology electronically in SEDQUAL data entry templates including, but not limited to REFERENCE, SURVEY, STATION, SAMPLE, CHEMISTRY, BIOASSAY and

BIOASSAY CONTROL. The current version of SEDQUAL can be found at <http://www.ecy.wa.gov/programs/tcp/smu/sedqualfirst.htm>.

- b. Station locations shall include latitude/longitude coordinates in NAD83 HARN south zone feet and chemical concentration data shall be reported in dry weight units.
- c. Electronic SEDQUAL template data must be verified to be compatible with the current version of SEDQUAL which uses ASCII protocol, comma delimited text files prior to delivery to Ecology. Verification shall be conducted by the consultant importing each of the data templates into their SEDQUAL database, correcting any errors, and then exporting the corrected final templates for delivery to Ecology.
- d. Sediment sampling data shall also be submitted to Ecology in hardcopy reports containing data tables in both dry weight and total organic carbon normalized units in comparison to applicable state regulatory criteria. Electronic SEDQUAL template data shall be submitted to Ecology simultaneously with the hardcopy report.

H. Emergency/Contingency Measures

- H1. The Applicant shall develop and implement a Spill Prevention and Containment Plan for all aspects of this project. This Plan shall be submitted to Ecology for review 30 days prior to beginning construction.
- H2. 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.
- H3. 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.
- H4. 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, 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. Notify Ecology of the failure to comply. All oil spills shall be reported immediately to Ecology's 24-Hour Spill Response Team at 1-800-258-5990, **and** within 24 hours of spills or other events to Ecology's 401/CZM Federal Project Manager at (425) 649-7129 or (425) 649-7000.
- d. Submit a detailed written report to Ecology within five (5) days that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.

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

I. Timing Requirements

- I1. This Order is valid until all compliance requirements in this document have been met.
- I2. In-water work shall be subject to the following timing limitations imposed by WDFW. Work within fish bearing waters below Ordinary High Water (OHW) may begin July 15, 2006, and shall be completed by December 31, 2010, provided:
 - a. Marine: Work below the OHWM shall not occur from February 16 through July 14 of any year for the protection of migrating juvenile salmonids.
 - b. Freshwater: In fish bearing waters, work below the OHWM shall only occur between July 1 and October 15 of any year for the protection of migrating juvenile salmonids.

Work in or near the water that may affect fish migration, spawning, or rearing shall cease immediately upon a determination by WDFW that fisheries resources may be adversely affected.

J. Reporting and Notification Requirement Conditions

- J1. Applicant shall provide notice to Ecology's 401/CZM Federal Project Manager at least three (3) days prior to the start of construction, three (3) days prior to start of work at the Meadowdale Marina site, and within 14 days after completion of construction at the project and mitigation sites. Notification, referencing Corps Reference #200501045, Order #3306, can take place by telephone to (425) 649-7129 or (425) 649-7000, fax to (425) 649-7098, or in writing.

K. Appeal Process

You have the right to appeal this Order to the Pollution Control Hearings Board. Pursuant to chapter 43.21B RCW, your appeal must be filed with the Pollution Control Hearings Board, and served on the Department of Ecology within thirty (30) days of the date of your receipt of this document.

To appeal this Order, your notice of appeal must contain a copy of the Ecology Order you are appealing.

Your appeal must be filed with:

The Pollution Control Hearings Board
4224 - 6th Avenue SE, Rowe Six, Bldg. 2
P.O. Box 40903
Lacey, Washington 98504-0903

Your appeal must also be served on:

The Department of Ecology
Appeals Coordinator
P.O. Box 47608
Olympia, Washington 98504-7608.

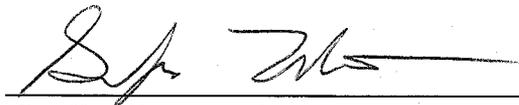
In addition, please send a copy of your appeal to:

Federal Permit Appeals Coordinator
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

For additional information: Environmental Hearings Office Website: <http://www.eho.wa.gov>

Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320. These procedures are consistent with Ch. 43.21B RCW.

Dated June 30, 2006 at Bellevue, Washington.



Geoff Tallent, Section Manager
Shorelands and Environmental Assistance Program
Department of Ecology
State of Washington

ATTACHMENT A

**BNSF Railway Company
Everett-to-Seattle Commuter Rail Project
Water Quality Certification Order #3306**

**Statement of Understanding of
Water Quality Certification Conditions**

I have read and understand the conditions of Order #3306 Section 401 Water Quality Certification for the Everett-to-Seattle Commuter Rail Project. I have also read and understand all permits, plans, documents, and approvals associated with the Everett-to-Seattle Commuter Rail Project referenced in this order.

Signature

Date

Title

Company