2010
WASHINGTON STATE
Joint Aquatic Resources Permit Application (JARPA) Form[1]

USE BLACK OR BLUE INK TO ENTER ANSWERS IN WHITE SPACES BELOW.

US Army Corps of Engineers
Seattle District

AGENCY USE ONLY

Date received:

Agency reference #:

Tax Parcel #(s):

Part 1–Project Identification

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [help][2]
Custer Spur Improvements (BNSF Intalco Wye Through Elliott Yard Capacity Expansion Project)

Part 2–Applicant

The person or organization responsible for the project. [help]

2a. Name (Last, First, Middle) and Organization (if applicable)			
Glen M. Gaz, Manager Engineering - BNSF Railway			
2b. Mailing Address (Street or PO Box)			
2454 Occidental Avenue South, Suite 2-D			
2c. City, State, Zip			
Seattle, WA 98134-1451			
2d. Phone (1)	**2e.** Phone (2)	**2f.** Fax	**2g.** E-mail
206-625-6150	( )	206-625-6356	glen.gaz@bnsf.com

Part 3–Authorized Agent or Contact

Person authorized to represent the applicant about the project. (Note: Authorized agent(s) must sign 11b. of this application.) [help]

3a. Name (Last, First, Middle) and Organization (if applicable)
Pierre Bordenave, VP Environmental Services – JLP Environmental (JLP-E)
3b. Mailing Address (Street or PO Box)
PO Box 1724; 101 North Fourth Avenue, Suite 203
3c. City, State, Zip

[1] Additional forms may be required for the following permits:
- If your project may qualify for Department of the Army authorization through a Regional General Permit (RGP), contact the U.S. Army Corps of Engineers for application information (206) 764-3495.
- If your project might affect species listed under the Endangered Species Act, you will need to fill out a Specific Project Information Form (SPIF) or prepare a Biological Evaluation. Forms can be found at http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_ESA
- If you are applying for an Aquatic Resources Use Authorization you will need to fill out and submit an Application for Authorization to Use State-Owned Aquatic Lands form to DNR, which can be found at http://www.dnr.wa.gov/Publications/aqr_use_auth_app.doc
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you think you will need a Shoreline permit, contact the appropriate city or county government to make sure they will accept the JARPA.

[2] To access an online JARPA form with [help] screens, go to http://www.epermitting.wa.gov/site/alias__resourcecenter/jarpa_jarpa_form/9984/jarpa_form.aspx .
For other help, contact the Governor's Office of Regulatory Assistance at 1-800-917-0043 or help@ora.wa.gov.

Sandpoint, ID 83864			
3d. Phone (1)	**3e.** Phone (2)	**3f.** Fax	**3g.** E-mail
208-263-9391	208-293-3333 (cell)	208-263-7013	pbordenave@jlpatterson.com

Part 4–Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. [help]

☐ Same as applicant. (Skip to Part 5.)

☐ Repair or maintenance activities on existing rights-of-way or easements. (Skip to Part 5.)

☒ There are multiple property owners. Complete the section below and fill out JARPA Attachment A for each additional property owner.

NOTE: Attachment A, B, & C are under review and being compiled when all properties affected are identified. When the list is finalized, the respective attachments will be submitted to the agencies.

4a. Name (Last, First, Middle) and Organization (if applicable)			
4b. Mailing Address (Street or PO Box)			
4c. City, State, Zip			
4d. Phone (1)	**4e.** Phone (2)	**4f.** Fax	**4g.** E-mail
( )	( )	( )	

Part 5–Project Location(s)

Identifying information about the property or properties where the project will occur. [help]

☒ There are multiple project locations (e.g., linear projects). Complete the section below and use JARPA Attachment B for each additional project location.

NOTE: Attachment A, B, & C are under review and being compiled when all properties affected are identified. When the list is finalized, the respective attachments will be submitted to the agencies.

5a. Indicate the type of ownership of the property. (Check all that apply.) [help]

☐ State Owned Aquatic Land (If yes or maybe, contact the Department of Natural Resources (DNR) at (360) 902-1100)
☐ Federal
☐ Other publicly owned (state, county, city, special districts like schools, ports, etc.)
☐ Tribal
☒ Private

5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]

BNSF Location: Northwest Division, Cherry Point Subdivision Mainline, Line Segment 418, Milepost (MP) 0.0 to MP 6.0±; Generally from the BNSF Intalco Wye near Custer, WA; to the south end of the BNSF Elliott Yard (Lonseth Rd)

5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]

Custer, WA 98240

5d. County [help]

Whatcom

5e. Provide the section, township, and range for the project location. [help]

¼ Section	Section	Township	Range
Portions of	26, 27, 28, 32, 33	T 40 N	R 1 E
Portions of	5, 8, 17	T 39 N	R 1 E

5f. Provide the latitude and longitude of the project location. [help]

- Example: 47.03922 N lat. / -122.89142 W long. (NAD 83)

(Start) of Project Corridor: Intalco Wye N48.9218'; W122.6478'

(End) of Project Corridor: Elliott Yard @ Lonseth Road N48.8702'; W122.7094'

5g. List the tax parcel number(s) for the project location. [help]

- The local county assessor's office can provide this information.

NOTE: Attachment A, B, & C are under review and being compiled when all properties affected are identified. When the list is finalized, the respective attachments will be submitted to the agencies.

5h. Contact information for all adjoining property owners. (If you need more space, use JARPA Attachment C.) [help]

Name	Mailing Address	Tax Parcel # (if known)
See NOTE in 5g.		

5i. List all wetlands on or adjacent to the project location. [help]

41 wetlands are shown along and adjacent to the project work corridor. Many of the wetlands are connected or continue off the property.

5j. List all waterbodies (other than wetlands) on or adjacent to the project location. [help]

California Creek (drains to Drayton Harbor); Terrell Creek (drains to Birch Bay)

5k. Is any part of the project area within a 100-year flood plain? [help]

☐ Yes ☒ No ☐ Don't know

5l. Briefly describe the vegetation and habitat conditions on the property. [help]

Wetland and upland plant communities in the project work corridor are a reflection of historic intensive agricultural land use, soil characteristics, and geomorphic and hydrologic conditions. Vegetation in agricultural pastureland along the work corridor is generally managed for hay production and/or grazing. Pastures exhibit lush growth with mixtures of red fescue, bentgrass, sweet vernalgrass, velvetgrass, and plantain. In less extensively managed pastures, dominant grass species include red fescue, foxtail, Canadian thistle, bentgrass, quack grass, and orchard grass. Vegetation in forested areas is predominantly red alder along with black cottonwood (deciduous forest) and with relatively small areas of western red cedar, western hemlock, and Douglas-fir (coniferous forest). Understory species include vine maple, common snowberry, salmonberry, English holly, clustered rose, bracken fern, and red elderberry.

5m. Describe how the property is currently used. [help]

The project work corridor is an active BNSF railroad subdivision main line and switch yards.

5n. Describe how the adjacent properties are currently used. [help]

Adjacent properties have been used primarily for agricultural, timber management, rural single-family home residences, and commercial / industrial facilities. There are pockets of relatively undisturbed coniferous and deciduous forested areas adjacent to the work corridor, and wetland areas are generally associated with either California Creek or Terrell Creek.

5o. Describe the structures (above and below ground) on the property, including their purpose(s). [help]

Structures within the work corridor consist of the railroad track structural embankment, with the top of rail to toe of slope varying from 3 to 20 feet. Railroad signal communications for rail operations are distributed as needed along the corridor. In general, signals and associated communications bungalows are no more than 25' +/- high and 10' by 10' in dimension. Existing bridges span both Terrell and California Creeks. Existing Terrell bridge is a full span across the creek channel and California Creek has pilings within the creek channel. The new bridges would fully span both creek channels. Existing timber pilings would be cut at the base to ensure the least amount of impact to aquatic resources.

5p. Provide driving directions from the closest highway to the project location, and attach a map. [help]

Travel north on Interstate-5 from Seattle, take the first 'Custer' exit # 266 to Grandview Road westbound; take Portal Way north; in Custer, take Main Street west, turn right (north) on Bruce Road travelling north, then west on Arnie Road to the intersection of Valley View Road. Turn right (north) to where Valley View Rd. intersects with the BNSF tracks. To the left (west) is the existing Intalco Yard and Receiving & Departure (R&D) tracks. To the right (east) is the Intalco Wye and the R&D tracks, going towards the Custer Junction.

Part 6–Project Description

6a. Summarize the overall project. You can provide more detail in 6d. [help]

BNSF is proposing to improve the existing Cherry Point Subdivision Mainline (from the Intalco Wye through the Elliott Yard) which aligns generally east-west for 2 miles, then generally north-south for approximately four miles. The start of the project (Intalco Wye Junction) spurs off of the Bellingham Subdivision Mainline at the town of Custer. The project ends at the intersection of the BNSF Cherry Point Subdivision Mainline to Lonseth Road, south of the existing BNSF Elliott Yard. For consistency in the JARPA narrative and all attached documents, the description of the geographic alignment for the Cherry Point Mainline tracks will be referred to as "east / west" and adjacent properties identified as on the "north or south" side of the BNSF right-of-way (ROW).

The improvements would accommodate the potential tonnage of dry bulk commodities for projected rail capacity needs. The expansion would also allow access to/from international and interstate commercial facilities and markets on this rail line. This is the only rail line that provides connecting rail service to existing and proposed Cherry Point Area industrial facilities. Project activities would consist of constructing a second track, expansion and improvements at both the Intalco and Elliott switch yards, and the addition of three R&D tracks at the east end (Intalco) of the Cherry Point Mainline Subdivision.

A detailed description of the project components is in 6d.

6b. Indicate the project category. (Check all that apply) [help]

☒ Commercial ☐ Residential ☐ Institutional ☒ Transportation ☐ Recreational
☐ Maintenance ☐ Environmental Enhancement

6c. Indicate the major elements of your project. (Check all that apply) [help]

☐ Aquaculture	☒ Culvert	☐ Float	☒ Road
☒ Bank Stabilization	☐ Dam / Weir	☐ Geotechnical Survey	☐ Scientific Measurement Device
☐ Boat House	☐ Dike / Levee / Jetty	☒ Land Clearing	☐ Stairs
☐ Boat Launch	☒ Ditch	☐ Marina / Moorage	☐ Stormwater facility
☐ Boat Lift	☐ Dock / Pier	☐ Mining	☐ Swimming Pool
☒ Bridge	☐ Dredging	☐ Outfall Structure	☒ Utility Line
☐ Bulkhead	☒ Fence	☒ Piling	
☐ Buoy	☐ Ferry Terminal	☒ Retaining Wall (upland)	
☒ Channel Modification	☐ Fishway		

☒ Other: Project elements not listed that will be part of the BNSF Custer Spur Improvements (Intalco Wye through Elliott Yard Capacity Expansion project) are: Railroad track construction and existing track infrastructure upgrades/maintenance.

6d. Describe how you plan to construct each project element checked in 6c. Include specific construction methods and equipment to be used. [help]

- Identify where each element will occur in relation to the nearest waterbody.
- Indicate which activities are within the 100-year flood plain.

The project summary from 6a and the elements checked in 6c are related to the bulleted construction components described below:

- Up to three R&D tracks would be developed on the south side of the BNSF Railway's Cherry Point Subdivision Mainline starting from the Intalco Wye and ending at Ham Road. Each R&D track would be long enough to provide a holding area for a full length train and avoid blockage of the main line. The R&D track construction would include expansion of the existing rail embankment, additional trackage, new bridges, improvements to existing bridges, and drainage improvements (i.e. culverts/ditches).
- The existing Cherry Point Subdivision Mainline and siding tracks would also be upgraded to accommodate the potential volume of transported commodities while maintaining current service levels. This rail upgrade would include rehabilitation of existing ties, switches, signals, and other existing railbed or structural improvements to support efficient and safe maintenance.
- A second track would be added along the length of the existing Cherry Point Subdivision Mainline from the Intalco Wye to Lonseth Road (approximately six miles) on the north side, to the new proposed industrial/commercial facilities connection point. This line currently services several existing industries by way of a single rail line track. A second track would protect existing rail service and switching capabilities for all customers along the line, including the ability to efficiently accommodate potential rail traffic to and from the proposed Gateway Pacific Terminal (GPT).
- California Creek in the Intalco Yard portion of the project (Approx. Station 45+00) would be realigned to reduce the oblique angle of the creek to the existing BNSF bridges thereby reducing potential for erosion or scour to the railroad bridge structure embankments/abutments, and improve natural flow-through in the creek channel. This realignment would enhance opportunities for habitat restoration to California Creek through the impacted reach. The intent is to fully restore the creek from the new bridges to an existing stream restoration area south of Arnie Road. The replacement bridges would fully span the creek channel. The existing timber pilings would be cut at the base to reduce impacts to aquatic resources.
- New and replacement bridges over Terrell Creek would fully span the creek. The riparian edges and corridor under and adjacent to the bridges would be restored for the enhancement of natural hydrologic connection and improve fish passage.

Construction methods would be typical of large scale road and railroad construction, involving various forms of support vehicles/trucks, earth moving/grading equipment, tie/track laying equipment, etc.

The entire project and all components would be constructed in one stage.

6e. What are the start and end dates for project construction? (month/year) [help]

- If the project will be constructed in phases or stages, use JARPA Attachment D to list the start and end dates of each phase or stage.

Start date: Upon permit approval End date: 12 months after start ☐ See JARPA Attachment D

6f. Describe the purpose of the project and why you want or need to perform it. [help]

Improvements to the BNSF Cherry Point Subdivision Mainline are necessary to accommodate the number, length, and weight of trains, as well as to safely and efficiently provide rail services for the existing facilities in the Cherry Point Industrial Area and the proposed GPT facility. Current capacity is insufficient to efficiently and safely handle the potential volume and length of trains without impacting operations on the Cherry Point Subdivision Mainline or the Bellingham Subdivision Mainline.

6g. Fair market value of the project, including materials, labor, machine rentals, etc. [help]

$ 50 million

6h. Will any portion of the project receive federal funding? [help]

- **If yes**, list each agency providing funds.

☐ Yes ☒ No ☐ Don't know

Part 7–Wetlands: Impacts and Mitigation

☒ Check here if there are wetlands or wetland buffers on or adjacent to the project area. (If there are none, skip to Part 8.) [help]

7a. Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. [help]

☐ Not applicable

Project planning has gone through three iterations:

The initial plan identified almost all expansions of the rail line and improvements as occurring to the south of the current rail line. This location had the lowest cost and most direct connections that minimized switches and signals. This alternative resulted in an initial evaluation of up to 30 + acres of potential wetland fills identified.

The second iteration defined the expansion with access roads and service areas along both sides of the tracks for the entire six miles, but moved most of the major expansion, other than the R&D tracks, to the north side. This resulted in approximately 20+ acres of total wetland fill.

The final iteration of the proposed expansion plan has reduced, through design and alignment adjustments, the total wetland impacts to 16.76 acres, and also minimized impacts to higher function and value wetland areas and features.

7b. Will the project impact wetlands? [help]

☒ Yes ☐ No ☐ Don't know

7c. Will the project impact wetland buffers? [help]

☒ Yes ☐ No ☐ Don't

7d. Has a wetland delineation report been prepared? [help]

- **If yes**, submit the report, including data sheets, with the JARPA package.

☒ Yes ☐ No

7e. Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating System? [help]

- **If yes**, submit the wetland rating forms and figures with the JARPA package.

☒ Yes ☐ No ☐ Don't know

7f. Have you prepared a mitigation plan to compensate for any adverse impacts to wetlands? [help]

- **If yes**, submit the plan with the JARPA package and answer 7g.
- **If No, or Not applicable,** explain below why a mitigation plan should not be required.

☒ Yes ☐ No ☐ Not applicable

This project would have unavoidable wetlands impacts of 16.76 acres of Washington Department of Ecology (Ecology) rated Category II, III, and IV wetlands. By Category, the impacts are: II = 0.07 AC; III = 13.56 AC; IV = 3.13 AC. The impacts occur to emergent, scrub-shrub, forested-open water, and riparian wetlands located within the existing and proposed additional BNSF ROW. The areas of wetland fill typically have been historically disturbed or impacted either by the original railroad construction, gas line construction and /or by agricultural and silvicultural activities adjacent to the railroad. Compensatory mitigation for impacts to all wetlands would be accomplished through: rehabilitation of areas historically altered and drained for agricultural purposes adjacent to the BNSF ROW, restoration of off-site locations, and working with local and state entities such as the Whatcom County Conservation District, WA Dept. of Fish & Wildlife (WDFW), and WA Dept. of Natural Resources (DNR) to complete potential mitigation areas that are high potential candidates for wetland and stream restoration, which lack available funds.

The project design requires existing jurisdictional ditches to be off-set approximately 13 feet from the edge of the track structure. Since all ditches would be replaced essentially in-kind near or adjacent to the point of fill or alteration, the existing impacts to hydrology are projected to be minimal. Vegetation filtration and bottom-of-ditch infiltration will remain essentially the same for the new ditches as the existing maintained ditches along the tracks for safe rail structure management. Thus, we are proposing that all jurisdictional ditch impacts be defined as being accomplished through adjacent in-kind replacement.

The mitigation ratios for off-site replacement of wetland impacts will be determined based on the type of mitigation sites that are utilized.

7g. Summarize what the mitigation plan is meant to accomplish, and describe how a watershed approach was used to design the plan. [help]

The proposed compensatory mitigation strategy for this project is to re-establish, rehabilitate, and restore WADOE Category II, III, and IV wetlands within the impacted watershed (WRIA #1) or in adjacent watersheds to offset the unavoidable wetland impacts from the project and to improve fish and wildlife habitat, water quality functions, and flood flow features in the project area. Mitigation is proposed to offset both temporal and permanent loss of the unavoidable wetland impacts within the project work corridor.

7h. Use the table below to list the type and rating of each wetland impacted; the extent and duration of the impact; and the type and amount of mitigation proposed. Or if you are submitting a mitigation plan with a similar table, you can state (below) where we can find this information in the plan. [help]

Activity (fill, drain, excavate, flood, etc.)	Wetland Name[1]	Wetland type and rating category[2]	Impact area (Acres)	Duration of impact[3]	Proposed mitigation type[4]	Wetland mitigation area (sq. ft. or acres)
Fill	WW	III	1.25	Permanent		
Fill	W	III	0.38	Permanent		
Fill	X	III	0.18	Permanent		
Fill	V	III	1.73	Permanent		
Fill	Uu	III	2.40	Permanent		
Fill	VV	III	0.85	Permanent		
Fill	U	III	1.04	Permanent		
Fill	u	IV	0.61	Permanent		
Fill	Vv	IV	0.46	Permanent		
Fill	v, vv	III	2.19	Permanent		
Fill	T	III	0.69	Permanent		
Fill	tt	III	0.15	Permanent		
Fill	TT	IV	0.34	Permanent		
Fill	R, Rr, rr, RR	III	0.30	Permanent		
Fill	Ss	IV	0.16	Permanent		
Fill	SS	III	0.32	Permanent		
Fill	QQ	IV	0.15	Permanent		
Fill	S	III	0.11	Permanent		
Fill	q	III	0.03	Permanent		
Fill	Q	IV	0.10	Permanent		
Fill	n	III	0.16	Permanent		
Fill	N, Nn	IV	0.10	Permanent		
Fill	M	III	0.67	Permanent		
Fill	OO, Oo	II	0.03	Permanent		
Fill	Mm	IV	0.02	Permanent		
Fill	m	IV	0.17	Permanent		
Fill	KK	IV	0.13	Permanent		
Fill	K	IV	0.03	Permanent		
Fill	J	IV	0.38	Permanent		
Fill	H	III	0.54	Permanent		
Fill	I	IV	0.37	Permanent		
Fill	D	IV	0.05	Permanent		
Fill	G	IV	0.04	Permanent		
Fill	F, FF	IV	0.02	Permanent		
Fill	E	III	0.02	Permanent		
Fill	B	II	0.04	Permanent		
Fill	A	III	0.55	Permanent		
Total Acres			16.76			

[1] If no official name for the wetland exists, create a unique name (such as "Wetland 1"). The name should be consistent with other project documents, such as a wetland delineation report.
[2] Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package.
[3] Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable.
[4] Creation (C), Re-establishment/Rehabilitation (R), Enhancement (E), Preservation (P), Mitigation Bank/In-lieu fee (B)

Page number(s) for similar information in the mitigation plan, if available: _____

7i. For all filling activities identified in 7h., describe the source and nature of the fill material, the amount in cubic yards that will be used, and how and where it will be placed into the wetland. [help]

Approximately 250,000 cubic yards of structural soil and rock fill would be required for the construction of the proposed rail improvements.

The source of the soil/rock materials would be from local commercial quarries that meet the engineering design criteria for use in mainline railroad construction.

Material would be brought to the work site via commercial haul truck/trailers and/or via freight cars designed for transport of rock materials. Materials would be used immediately or temporarily stockpiled in upland staging locations within the BNSF ROW. Materials would be placed using earth moving equipment typical of major transportation corridor projects, i.e. dump trucks, bulldozers, front end loaders, graders, backhoes, excavators, etc.

7j. For all excavating activities identified in 7h., describe the excavation method, type and amount of material in cubic yards you will remove, and where the material will be disposed. [help]

Approximately 15,000 cubic yards of excavation would be required along the project work corridor for the construction of the proposed rail improvements.

Excavation would require using excavators or backhoes and excavated material would be used in the project for non-structural fill, slope and edge restoration, or removed via commercial haul trucks or train cars to off-site upland locations, pre-approved by the project construction management team. Any off-site disposal areas would avoid surface water quality impacts by following the project Water Quality Management and Storm Water Pollution Prevention Plans.

Part 8–Waterbodies (other than wetlands): Impacts and Mitigation

In Part 8, "waterbodies" refers to non-wetland waterbodies. (See Part 7 for information related to wetlands.) [help]

☒ Check here if there are waterbodies on or adjacent to the project area. (If there are none, skip to Part 9.)

8a. Describe how the project is designed to avoid and minimize adverse impacts to the aquatic environment. [help]

☐ Not applicable

The project would directly impact the named creeks (California & Terrell) and unnamed tributaries of California Creek where they intersect and flow under the existing BNSF rail line. The project design and proposed work includes design elements that minimize impacts to these waterways while fulfilling federally mandated standards for safe construction and operations of Class 1 railroads:

1. At California Creek and the unnamed tributaries to California Creek, freight capacity requirements were carefully analyzed and the three new R&D tracks were identified as the minimum required for full capacity needs in order to minimize the extent of fills, channel alterations, and culvert lengths. Bridges will be full span to avoid the placement of structural components in the stream.
2. The location of the R&D tracks on the south side of the existing tracks resulted in lower potential impacts than the north side because California Creek on south side of the tracks is highly altered by agricultural activities, compared to the more naturalized stream conditions on the north side.
3. Culverts and stream flow-through structures will incorporate design methods to improve and enhance fish and other aquatic life passage.
4. The full span/no in-water pilings or piers bridge design avoids in-stream alterations to the greatest extent possible at Terrell Creek.

8b. Will your project impact a waterbody or the area around a waterbody? [help]

☒ Yes ☐ No

8c. Have you prepared a mitigation plan to compensate for the project's adverse impacts to non-wetland waterbodies? [help]

- **If yes,** submit the plan with the JARPA package and answer 8d.
- **If No, or Not applicable,** explain below why a mitigation plan should not be required.

☒ Yes ☐ No ☐ Not applicable

8d. Summarize what the mitigation plan is meant to accomplish. Describe how a watershed approach was used to design the plan.

- If you already completed 7g., you do not need to restate your answer here. [help]

California Creek and its associated tributaries/unnamed drainages are considered a sub-basin of the Drayton Harbor Watershed. A significant portion (68+/-%) of the California Creek basin's wetlands and riparian habitat has been historically altered. Generally the alteration of the area relates to removal of forest cover for agriculture, residential, and industrial development. Research (i.e. the Drayton Harbor Focused Watershed Analysis WADOE, 8/2003) has determined that natural hydrologic processes are maintained when at least 65% of a given watershed is forested. With only 32% +/- of the California Creek sub-basin of the Drayton Harbor watershed forested, the quality of habitat for fish and other aquatic species is defined as compromised.

Upstream of the California Creek existing and new bridge location, an 800+/- foot section of California Creek would be proposed to be realigned to change the oblique angle of flow entry to the BNSF rail bridges and reduce potential scour and erosion. The realignment of this portion of California Creek would be combined with the restoration of meander, stream complexity, substrate enhancement, and improved riparian habitat for the entire stream reach from the proposed bridges to the Arnie Road bridge. The riparian edges of the realigned creek corridor would be restored and rehabilitated from the existing agricultural use of a hay/grazing pasture to a naturalized, riparian corridor habitat.

These actions are intended to improve stream and riparian habitat, particularly for aquatic species in this reach of the creek, as well as fish passage and use to upstream habitats.

We are proposing to restore the entire reach of California Creek from the BNSF bridges to the existing restoration area south of Arnie Road to provide offset mitigation for the proposed project stream impacts. This stream reach restoration is proposed as the mitigation for the stream channel change near the BNSF main line bridges.

8e. Summarize impact(s) to each waterbody in the table below. [help]

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name[1]	Impact location[2]	Duration of impact[3]	Amount of material to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
Station 0+00 Extend culverts and install elbows/headwall	Unnamed tributary to California Ck.	At intersect of BNSF tracks/CA Ck. flow through	Permanent	300 +/- cubic yards (CY)	50+/- linear feet (LF) 500+/- square feet (SF)
Station 45+00 Realign a section of creek for a new bridge in the Intalco Yard area	California Ck.	Up/downstream of BNSF-CA Ck. intersect; Along CA Ck. to restoration project south of Arnie Rd	Permanent	4000 +/- CY	800 +/- LF 80,000 +/- SF

Station 84+00 Two new 72" culverts	Unnamed tributary to California Ck.	West of where the main stem of CA Ck. Intersects w/ BNSF	Permanent	2000+/- CY	650+/- LF 33,000 SF
Station 209+00 New Single Span Bridge and riparian edge restoration and stabilization of existing bridge abutments.	Terrell Creek	Over and adjacent to Terrell Ck.	Permanent	None	None

[1] If no official name for the waterbody exists, create a unique name (such as "Stream 1") The name should be consistent with other documents provided.
[2] Indicate whether the impact will occur in or adjacent to the waterbody. If adjacent, provide the distance between the impact and the waterbody and indicate whether the impact will occur within the 100-year flood plain.
[3] Indicate the days, months or years the waterbody will be measurably impacted by the work. Enter "permanent" if applicable.

8f. For all activities identified in 8e., describe the source and nature of the fill material, amount (in cubic yards) you will use, and how and where it will be placed into the waterbody. [help]

Tributary to California Creek Culvert Extension (Station 0+00+/-):

The existing culverts that this tributary to California Creek flows through would be extended with the same or larger size diameter culverts. The extensions would also be designed to avoid impacts to the adjacent Arnie Road. Disturbed open soil areas would be re-seeded and planted with native riparian species for both water quality and riparian corridor habitat improvements. The diversion would occur when the creek is at its lowest flow and during applicable in-water work windows as established by regulatory agencies. During this work, the creek would be temporarily diverted to a gravity pipe bypass system in late summer/early fall of the first year of construction.

Fill materials related to the extension of the culverts would be primarily the materials removed from the area needed for the extension. Quantity of fill into the realigned creek corridor is estimated to be 300+/- cubic yards.

California Creek Channel Relocation and Restoration Related to New Bridge (Station 45+00+/-):

The entire new channel would be constructed and restored prior to any diversion of flows. Diversion would occur when the creek is at its lowest flow and during applicable in-water work fish windows and while the creek is temporarily diverted to a gravity pipe bypass system in late summer/early fall of the first year of construction.

The new channel configuration would accommodate 500 year flood events and other extreme flow volumes resulting from upstream events. Generally, the new configuration would eliminate the existing straight and high wall excavated channel condition. The meandering realignment would incorporate the use of Biotechnical Erosion Control techniques for both habitat and passage accommodation and to prevent erosion/sedimentation impacts to water quality, as well as greater channel complexity that would include, but is not limited to: boulder clusters, root wads, riparian vegetation, and spawning gravel placement.

Fill materials related to the realignment of the creek channel would be primarily the materials removed from the excavated new channel. Quantity of fill into the realigned creek corridor is estimated to be 4,000+/- cubic yards, which would likely come from the excavated channel.

New Culverts @ Tributary to California Creek Channel Restoration (84+00 +/-):

Two unnamed tributary drainages to California Creek, that appear to have been historically ditched for agricultural purposes, would be reconfigured to reduce the length of the culverts needed to carry these flows under the tracks, and eliminate the existing straight, incised channels to a more natural meandering character. Currently this flow goes under the BNSF tracks at two locations. The proposed drainageway restoration would join the two sub-tributaries into a single tributary flowing under the tracks via two 72"

culverts with a design that allows for better peak flow, debris, and aquatic species passage. The new channels would incorporate riparian corridor native planting restoration. This would avoid and minimize impacts to water quality by stabilizing the disturbed soils while also restoring the drainage to a higher quality riparian habitat. This work would restore approximately 900+/- linear feet of tributary channel.

Terrell Creek Bridge Construction (Station 209+00):

The bridge structure at Terrell Creek would be a full span structure, requiring no piers or pilings within the channel. A new bridge of the same design may be installed on the existing main once the second bridge is constructed and operational.

Restoration activities for the existing bank and creek corridor may involve minor temporary activities related to the removal and rearranging of existing riprap rock and widening of the constricted channel immediately below the bridges based on discussions on-site with Jeffrey Kamps, Habitat Manager, WDFW.

8g. For all excavating or dredging activities identified in 8e., describe the method for excavating or dredging, type and amount of material you will remove, and where the material will be disposed. [help]

Station 0+00 Tributary to California Creek Culvert Extension:

300 CY would be excavated using excavators and/or backhoes to prepare the site for the culvert extension process. Excavated materials would be replaced as appropriate for bedding/support of the new culverts. Excess materials would be used in the construction of the rail grade in non-support areas.

Station 45+00 California Creek Channel Restoration Related to New Bridge:

4,000 CY would be removed using excavators and backhoes. Excess materials would be used as part of the project construction if acceptable, or removed to an approved offsite upland areas and revegetated.

Station 84+00 Tributaries to California Creek Channel Drainage/Culvert Restoration:

2,000 CY would be removed using excavators and backhoes. Excess materials would be used as part of the project construction if acceptable or removed to approved offsite, in upland areas and revegetated.

Station 209+00 Terrell Creek Bridge Construction:

Minor amounts of material would be excavated at the bridge abutments with an excavator to increase the channel cross section to its historic width. Cranes would be used to set the bridge spans. Other minor support equipment such as service trucks and material deliver railcars would be used as well. Excavated material is expected to be usable in the construction of the rail grade. All disturbed areas would be graded and contoured to allow for successful stabilization via seeding/mulching and planting.

Part 9–Additional Information

Any additional information you can provide helps the reviewer(s) understand your project. Complete as much of this section as you can. It is ok if you cannot answer a question.

9a. If you have already worked with any government agencies on this project, list them below. [help]

Agency Name	Contact Name	Phone	Most Recent Date of Contact
WA Dept of Fish & Wildlife	Jeffrey Kamps	(360) 466-4345 ext 271	Email rcvd 5/16/11 after 5/11/11 site visit.
WA Dept of Ecology	Susan Meyer	(425) 649-7168	Personal Communication at ORA Map Team/GPT Meeting, 5/12/11 in Lacey, WA
Dept. of Army, Corps of Engineers, Seattle Reg. Dist.	Randel Perry	(360) 734-3156	Conference call on 7/14/11 with BNSF & JLP-E

9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 on the Washington Department of Ecology's 303(d) List? [help]

- **If yes,** list the parameter(s) below.
- If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at: http://www.ecy.wa.gov/programs/wq/303d/.

☒ Yes ☐ No

Portions of California Creek within the project work limits: Bioassesment; Fecal Coliform; Dissolved Oxygen
Terrell Creek is not listed on the current, EPA approved 303(d) list.

9c. What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? [help]

- Go to http://cfpub.epa.gov/surf/locate/index.cfm to help identify the HUC.

HUC 17110004 – Nooksack Watershed

9d. What Water Resource Inventory Area Number (WRIA #) is the project in? [help]

- Go to http://www.ecy.wa.gov/services/gis/maps/wria/wria.htm to find the WRIA #.

WRIA 1 – Nooksack River

9e. Will the in-water construction work comply with the State of Washington water quality standards for turbidity? [help]

- Go to http://www.ecy.wa.gov/programs/wq/swqs/criteria.html for the standards.

☒ Yes ☐ No ☐ Not applicable

9f. If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation? [help]

- If you don't know, contact the local planning department.
- For more information, go to: http://www.ecy.wa.gov/programs/sea/sma/laws_rules/173-26/211_designations.html.

☐ Rural ☐ Urban ☐ Natural ☐ Aquatic ☐ Conservancy ☒ Other - Within the project work corridor, neither California nor Terrell Creeks have been designated.

9g. What is the Washington Department of Natural Resources Water Type? [help]

- Go to http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesApplications/Pages/fp_watertyping.aspx for the Forest Practices Water Typing System.

☐ Shoreline ☒ Fish [California & Terrell Creeks]

☒ Non-Fish Perennial ☒ Non-Fish Seasonal [Other noted drainages within work corridor, except for certain tributaries to California Creek, WADNR Water Type Maps)]

9h. Will this project be designed to meet the Washington Department of Ecology's most current stormwater manual? [help]

- **If no**, provide the name of the manual your project is designed to meet.

☒ Yes ☐ No

Name of manual: 2005 Stormwater Management Manual for Western Washington, Volumes I thru V, Publication Number: 05-10-029, printed/published in April 2005; plus current corrections (available on-line via http://www.ecy.wa.gov/programs/wq/stormwater/manual.htm)

9i. If you know what the property was used for in the past, describe below. [help]

The project work property has been a railroad right of way for over thirty years.

9j. Has a cultural resource (archaeological) survey been performed on the project area? [help]

- **If yes**, attach it to your JARPA package.

☒ Yes ☐ No

9k. Name each species listed under the federal Endangered Species Act that occurs in the vicinity of the project area or might be affected by the proposed work. [help]

USFWS Listed Species for Whatcom County, Updated 12/15/2010

- **Bull trout (*Salvelinus confluentus*) – Coastal-Puget Sound DPS [No Effect]**
- Canada lynx (*Lynx canadensis*) [No Effect]
- Gray wolf (*Canis lupus*) [No Effect]
- Grizzly bear (*Ursus arctos = U. a. horribilis*) [No Effect]
- **Marbled murrelet (*Brachyramphus marmoratus*) [No Effect]**
- Northern spotted owl (*Strix occidentalis caurina*) [No Effect]

NOAA Fisheries Listed Fish Species in the Project Vicinity, as of 7/1/2009 and confirmed via project specific WA Department of Fish & Wildlife Priority Habitat Species Data Search Request, StreamNet online data research, and WDFW habitat manager (Jeffrey Kamps, Whatcom County) liaison.

- **Coho Salmon *(Oncorhynchus kisutch)* [Species of Concern: May Affect, but Not Likely to Adversely Affect]**
- **Steelhead Trout *(Oncorhynchus mykiss)* [Threatened: May Affect, but Not Likely to Adversely Affect]**

[Note **bold text** denotes USFWS & NMFS listed species with the potential to occur within the project vicinity or Action Area and expected effect, upon final EIS/Biological Assessment preparation]

9l. Name each species or habitat on the Washington Department of Fish and Wildlife's Priority Habitats and Species List that might be affected by the proposed work. [help]

These are the species and habitats identified for Whatcom County. This list of species and habitats was developed using the distribution maps found in the Priority Habitat and Species (PHS) List (see http://wdfw.wa.gov/conservation/phs/).

** Denotes potential for habitat and species presence within Project Work Corridor and Impact Areas.

All other WDFW, Whatcom County Listed Species are not applicable to this project.

HABITATS:

- Biodiversity Areas & Corridors
- Old-Growth/Mature Forest
- ** Riparian
- ** Freshwater Wetlands
- ** Instream
- Snags and Logs

FISH:

- Bull Trout/ Dolly Varden
- Chinook Salmon
- Chum Salmon
- ** Coho Salmon
- Pink Salmon
- Rainbow Trout
- ** Steelhead/ Inland Redband Trout

BIRDS:

- Marbled Murrelet
- ** Western grebe
- ** Great Blue Heron
- ** Cavity-nesting ducks: (Wood Duck, Barrow's Goldeneye, Common Goldeneye, Bufflehead, Hooded Merganser)
- ** Waterfowl Concentrations
- ** Bald Eagle
- ** Peregrine Falcon
- Spotted Owl
- Vaux's Swift
- ** Black-backed Woodpecker
- ** Pileated Woodpecker
- ** Purple Martin

AMPHIBIANS:

- Western Toad

Part 10–SEPA Compliance and Permits

Use the resources and checklist below to identify the permits you are applying for.

- Online Project Questionnaire at http://apps.ecy.wa.gov/opas/.
- Governor's Office of Regulatory Assistance at (800) 917-0043 or help@ora.wa.gov.
- For a list of agency addresses to send your application, click on the "where to send your completed JARPA" at http://www.epermitting.wa.gov.

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [help]

- For more information about SEPA, go to www.ecy.wa.gov/programs/sea/sepa/e-review.html.

☐ A copy of the SEPA determination or letter of exemption is included with this application.

☐ A SEPA determination is pending with _____ (lead agency). The expected decision date is _____.

☐ I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b.) [help]

☐ This project is exempt (choose type of exemption below).

☐ Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt?

_____

☐ Other: _____

☐ SEPA is pre-empted by federal law.

10b. Indicate the permits you are applying for. (Check all that apply.) [help]

LOCAL GOVERNMENT

Local Government Shoreline permits: Not Applicable

☐ Substantial Development ☐ Conditional Use ☐ Variance

☐ Shoreline Exemption Type (explain): _____

Other city/county permits:

☐ Floodplain Development Permit ☐ Critical Areas Ordinance

STATE GOVERNMENT

Washington Department of Fish and Wildlife:

☐ Hydraulic Project Approval (HPA) ☐ Fish Habitat Enhancement Exemption

Washington Department of Ecology:

☒ Section 401 Water Quality Certification

Washington Department of Natural Resources:

☐ Aquatic Resources Use Authorization

FEDERAL GOVERNMENT

United States Department of the Army permits (U.S. Army Corps of Engineers):

☒ Section 404 (discharges into waters of the U.S.) ☐ Section 10 (work in navigable waters)

United States Coast Guard permits:

☐ General Bridge Act Permit ☐ Private Aids to Navigation (for non-bridge projects)

Part 11–Authorizing Signatures

Signatures are required before submitting the JARPA package. The JARPA package includes the JARPA form, project plans, photos, etc. [help]

11a. Applicant Signature (required) [help]

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities, and I agree to start work only after I have received all necessary permits.

I hereby authorize the agent named in Part 3 of this application to act on my behalf in matters related to this application. _____ (initial)

By initialing here, I state that I have the authority to grant access to the property. I also give my consent to the permitting agencies entering the property where the project is located to inspect the project site or any work related to the project. _____ (initial)

Glen M. Gaz, Manager Engineering, BNSF Railway		8/12/11
Applicant Printed Name	Applicant Signature	Date

11b. Authorized Agent Signature [help]

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities and I agree to start work only after all necessary permits have been issued.

Pierre Bordenave, JLP-Environmental		8/12/11
Authorized Agent Printed Name	Authorized Agent Signature	Date

11c. Property Owner Signature (if not applicant). [help]
Not required if project is on existing rights-of-way or easements.

I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

Property Owner Printed Name	Property Owner Signature	Date

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than 5 years or both.

If you require this document in another format, contact The Governor's Office of Regulatory Assistance (ORA). People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341.
ORA publication number: ENV-019-09