



WASHINGTON STATE

Joint Aquatic Resources Permit Application (JARPA) Form^{1,2}

USE BLACK OR BLUE INK TO ENTER ANSWERS IN THE 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) [\[help\]](#)

Crude by Rail East Gate Project

Part 2—Applicant

The person and/or organization responsible for the project. [\[help\]](#)

2a. Name (Last, First, Middle)

Equilon Enterprises LLC dba Shell Oil Products US

2b. Organization (If applicable)

Shell Oil Products US, Puget Sound Refinery

2c. Mailing Address (Street or PO Box)

P.O. Box 622

2d. City, State, Zip

Anacortes, Washington 98221-0622

2e. Phone (1)

2f. Phone (2)

2g. Fax

2h. E-mail

(360) 293-1761

()

(360) 293-1584

Brian.D.Rhodes@Shell.com

Part 3—Authorized Agent or Contact

¹Additional 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/Missions/CivilWorks/Regulatory/PermitGuidebook/EndangeredSpecies.aspx>.
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you need a Shoreline permit, contact the appropriate city or county government to make sure they accept the JARPA.

²To 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.

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)			
Walker, Jeff			
3b. Organization (If applicable)			
URS Corporation			
3c. Mailing Address (Street or PO Box)			
1501 4 th Avenue, Suite 1400			
3d. City, State, Zip			
Seattle, Washington 98101-1616			
3e. Phone (1)	3f. Phone (2)	3g. Fax	3h. E-mail
(206) 438-2351	()	(866) 495-5288	jeff.walker@urs.com

Part 4–Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. Consider both **upland and aquatic** ownership because the upland owners may not own the adjacent aquatic land. [\[help\]](#)

- ☐ 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 upland property owners. Complete the section below and fill out [JARPA Attachment A](#) for each additional property owner.
- ☐ Your project is on Department of Natural Resources (DNR)-managed aquatic lands. If you don't know, contact the DNR at (360) 902-1100 to determine aquatic land ownership. If yes, complete [JARPA Attachment E](#) to apply for the Aquatic Use Authorization.

4a. Name (Last, First, Middle)			
Equilon Enterprises LLC dba Shell Oil Products US			
4b. Organization (If applicable)			
Shell Oil Products US, Puget Sound Refinery			
4c. Mailing Address (Street or PO Box)			
P.O. Box 622			
4d. City, State, Zip			
Anacortes, Washington 98221-0622			
4e. Phone (1)	4f. Phone (2)	4g. Fax	4h. E-mail
(360) 293-1761	()	(360) 293-1584	Brian.D.Rhodes@Shell.com

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.

5a. Indicate the type of ownership of the property. (Check all that apply.) [help]			
<input checked="" type="checkbox"/> Private			
<input type="checkbox"/> Federal			
<input type="checkbox"/> Publicly owned (state, county, city, special districts like schools, ports, etc.)			
<input type="checkbox"/> Tribal			
<input type="checkbox"/> Department of Natural Resources (DNR) – managed aquatic lands (Complete JARPA Attachment E)			
5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]			
Shell Puget Sound Refinery 8505 South Texas Road (see Sheets 1 and 2)			
5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]			
Anacortes, WA 98221			
5d. County [help]			
Skagit County			
5e. Provide the section, township, and range for the project location. [help]			
¼ Section	Section	Township	Range
NW	3	34N	2E
NE	4	34N	2E
NE, SE	33	35N	2E
SW	34	35N	2E
5f. Provide the latitude and longitude of the project location. [help]			
• Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)			
48.469994 N lat. / -122.547311 W long.			
5g. List the tax parcel number(s) for the project location. [help]			
• The local county assessor's office can provide this information.			
P33502			
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 JARPA Attachment C			

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

Twenty-one wetlands occur in the project vicinity. A *Wetland Delineation Report and Critical Areas Assessment* (URS 2013) is provided with this application. The wetlands are shown on Sheets 3 to 8 and are characterized in the table below:

Wetland Name	Wetland Category	Cowardin Classification	HGM Classification	Hydrologically Isolated?	Wetland Size (acres) ¹	Buffer Width (feet)
A	IV	Emergent	Depressional / Slope	No	2.02	50
D	III	Forested/Scrub-shrub/Emergent	Depressional / Slope	No	38.41	150
D	III	Forested Mosaic	Depressional / Slope	No	7.45	150
E	III	Forested/Emergent	Depressional / Slope	No	10.75	150
E3	IV	Emergent	Depressional	No	0.17	50
E4	IV	Emergent	Depressional	No	0.05	50
E5	IV	Emergent	Depressional	No	0.18	50
E6	IV	Emergent	Depressional	No	0.20	50
I1	II	Forested/Scrub-shrub/Emergent/Estuarine	Depressional / Slope / Tidal Fringe	No	2.48	300
I2	IV	Emergent	Slope	No	0.35	50
J	IV	Emergent	Depressional / Slope	No	0.13	50
N	II	Estuarine Emergent	Tidal Fringe	No	0.04	300
O	III	Emergent	Depressional	No	0.18	150
Q	III	Forested/Scrub-shrub	Depressional	No	1.01	150
R	IV	Emergent	Depressional	No	0.10	50
S	II	Forested/Scrub-shrub/Emergent	Depressional / Slope	No	0.86	300
T	III	Forested	Depressional	Yes	0.12	150
U	IV	Emergent	Depressional	No	0.24	50
V	IV	Emergent	Depressional / Slope	No	1.07	50
W	III	Forested	Depressional	No	0.06	150
Y	IV	Emergent	Depressional / Slope	No	0.42	50
Z	IV	Emergent	Depressional / Slope	No	0.64	50

¹Includes only the area of the wetlands within the project area and only the wetland portion of the wetland/upland mosaics.

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

One stream (Stream S) and thirteen ditches (A1, A2, A3, B, D1, D2, D3, D4, E1, E2, E3, I, and Q) occur in the project vicinity and are described in detail in the *Wetland Delineation Report and Critical Areas Assessment* (URS 2013) provided with this application. Stream S is highly disturbed due to channelization and trampling from cattle. It provides poor to moderate aquatic habitat depending on the stream reach in the project vicinity.

The ditches are assumed to have “relatively permanent flow” (i.e., seasonal continuous flow). Since they all eventually drain to Padilla Bay (Puget Sound), the ditches are assumed to be jurisdictional under the Clean Water Act.

5k. Is any part of the project area within a 100-year floodplain? [\[help\]](#)

☒ Yes ☐ No ☐ Don't know

5l. Briefly describe the vegetation and habitat conditions on the property. [help]
The majority of the project area is moderately grazed pasture with some scattered, undeveloped forest patches at the edges. The herbaceous communities are dominated by non-native pasture grasses and forbs.
5m. Describe how the property is currently used. [help]
The pasture areas are grazed by cattle. Forested areas are undeveloped.
5n. Describe how the adjacent properties are currently used. [help]
The property is bounded on the north by North Texas Road, on the south by the existing Burlington Northern Santa Fe (BNSF) railroad, on the west by the existing rail spur and developed areas of the refinery, and on the east by mainly grazed pasture or undeveloped forest.
5o. Describe the structures (above and below ground) on the property, including their purpose(s) and current condition. [help]
Fourth Street, a gated refinery access road, bisects the southern half of the project area. South Texas Road, a gravel access road, crosses the project area near the south end. Two buried pipelines cross the project area: the Trans Mountain Pipeline runs through most of the south half, and the Olympic Pipeline runs through most of the north half. A pipeline pump station is located in the extreme northeastern corner of the project area. Electrical transmission lines on wooden poles are also present on the south half of the project area. A refinery security fence is present along much of the west side and north end of the project area. Numerous barbed wire fences are present throughout the project area. A clean soils stockpile (approximately 50 feet tall by 750 feet long by 500 feet wide) is present near the north end of the project area.
5p. Provide driving directions from the closest highway to the project location, and attach a map. [help]
From I-5 North past Burlington, exit to State Route 20 West. Continue 10.6 miles and turn right onto Thompson Road. Thompson Road becomes Bartholomew Road, which ends at the main gate of the Shell Puget Sound Refinery (PSR). Permission is required to enter refinery property. The project site is on the east side of the refinery.

Part 6—Project Description

6a. Briefly summarize the overall project. You can provide more detail in 6b. [help]
<p>Shell PSR proposes to build a rail spur from the existing adjacent BNSF mainline onto Shell PSR property with equipment to pump oil from rail cars into the refinery (see Sheets 9 to 14).</p> <p>Shell PSR anticipates that it would receive approximately one unit train per day. Each unit train would include approximately four locomotives, and approximately 102 oil tank rail cars containing crude oil. The facility is being designed to receive a maximum of six unit trains per week, for a total of approximately 612 incoming fully loaded oil cars and 612 outgoing empty tank cars on a weekly basis.</p> <p>The project scope generally includes the following components:</p> <ul style="list-style-type: none"> – Arrival/departure rail track – Unloading area with two tracks and a concrete containment pad – Bad order railcar tracks with repair facilities, personnel operations building and appurtenant facilities and limited parking – Perimeter inspection/security road – Pumps and below- and above-ground pipelines to connect the proposed project to the existing storage tanks – New road connections – Relocation of segments of the Olympic Pipeline, the Kinder Morgan Pipeline, and Puget Sound Energy (PSE) power lines – New electrical power substation – Oil/water separator facilities and containment for a single-car spill

– Stormwater collection basins

The rail extension for the crude unloading facility would extend from the existing BNSF rail line and spur (near South March Point Road) in a northwesterly direction approximately 5,500 feet to North Texas Road. Most of that distance will require excavation below existing topography in order to meet gradient requirements. The rail facility would consist of two unloading tracks approximately 3,000 feet long each with a concrete unloading pad, two (bad-order) tracks approximately 650 feet long each for temporary storage of rail cars that are taken out of service for repair and maintenance, and a total of about 7,200 feet of train-staging track. Rail ingress and egress would be provided via a connection to the existing BNSF mainline located to the southeast, which would require modifications to the BNSF rail configuration. Short segments of the existing BNSF main track and a siding track will be realigned slightly to the south, the existing Shell spur would be realigned slightly to the west, and new switches would be installed in addition to adding the new connection.

The crude oil transfer station would include many features to comply with strict safety requirements and protect air and water. These features include vent headers, a containment area, drain connections and collection header, and tank car grounding. Two ponds are proposed to the east of the rail facility to provide permanent storm water control. An oil/water separator pond, into which runoff and spilled oil from the concrete unloading pad would be pumped, would also be provided on the west side of the rail adjacent to the new facilities. It would be connected to existing oily water treatment facilities at the refinery via a new pipe along 4th Street. An operations shelter, storage shed, electrical structure and a small employee parking lot would also be constructed in proximity to the crude oil transfer facility. These facilities would be located west of the unloading facility and just east of the existing refinery substation.

Access to the new facilities would be connected via the proposed rail perimeter road to existing roads at 8th Street and North Texas Road at the north end and at South Texas Road on the south end. The perimeter road would be paralleled by a lined drainage ditch to capture runoff from the cut slopes and direct it to the stormwater basins.

The proposed project would include various site preparation activities including, but not limited to, clearing and grading; installation and construction of associated infrastructure improvements, such as stormwater infrastructure; and extension of existing services and utilities, including electricity, sanitary sewer, potable water, etc. Two existing pipelines would be relocated from existing locations within the footprint of the rail facility to a common corridor along the eastern side of the new facility. A segment of the Puget Sound Energy power lines on the east side of the facility will require relocation. This realignment will involve the relocation of three power poles, the installation of 18 new power poles, and the removal of 14 existing power poles. Several existing ditches will require rerouting or culverting to accommodate the new facilities and modified topography. None of the rerouted ditches are proposed to be lined.

6b. Describe the purpose of the project and why you want or need to perform it. [\[help\]](#)

The purpose of the project is in support of the fundamental purpose and need of the Shell PSR to provide a variety of fuels to the Pacific Northwest region. The Shell PSR receives crude oil by ship from Alaska's North Slope. This crude oil supply is in a gradual decline. In its place, there is now an increased availability of mid-continent crude and other crudes of opportunity. The crude brought in by rail would replace some supply currently brought in by ship and would serve to maintain current production, not increase capacity. At this time, the only practicable transportation means for transporting crude oil from the mid-continent to the Shell PSR is by the use of rail.

BNSF owns and operates the existing mainline that runs adjacent to the Shell PSR. The railroad line, also known as the Anacortes Subdivision, formerly terminated farther to the west in Anacortes. Today, the railroad line ends on the western side of the peninsula and just south of North Texas Road, south of the adjacent Tesoro Anacortes Refinery, and is actively used by Shell, Tesoro, and other neighboring industries. Shell PSR currently receives an average of 15 cars of product per day (or three trains per week) that is then processed by coking into petroleum coke.

Existing rail facilities at the refinery are not designed to receive and unload unit trains or crude shipments. To accommodate the volume of railcars of crude from rail, Shell PSR proposes to construct a rail facility that would

allow a train to safely and efficiently move off the adjacent BNSF rail line into an unloading facility at the refinery. Development of the rail facility must address the following basic needs: the facility must accommodate unit trains of crude oil; the facility must meet BNSF, Washington State Department of Transportation, and Federal Railroad Administration rail design criteria; the site must be in proximity to the refinery and the existing BNSF rail line; and the site must also meet basic industry and refinery-specific safety and security requirements.

6c. Indicate the project category. (Check all that apply) [\[help\]](#)

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

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

<input type="checkbox"/> Aquaculture <input type="checkbox"/> Bank Stabilization <input type="checkbox"/> Boat House <input type="checkbox"/> Boat Launch <input type="checkbox"/> Boat Lift <input checked="" type="checkbox"/> Bridge <input type="checkbox"/> Bulkhead <input type="checkbox"/> Buoy <input checked="" type="checkbox"/> Channel Modification	<input checked="" type="checkbox"/> Culvert <input type="checkbox"/> Dam / Weir <input type="checkbox"/> Dike / Levee / Jetty <input checked="" type="checkbox"/> Ditch <input type="checkbox"/> Dock / Pier <input type="checkbox"/> Dredging <input checked="" type="checkbox"/> Fence <input type="checkbox"/> Ferry Terminal <input type="checkbox"/> Fishway	<input type="checkbox"/> Float <input type="checkbox"/> Floating Home <input type="checkbox"/> Geotechnical Survey <input checked="" type="checkbox"/> Land Clearing <input type="checkbox"/> Marina / Moorage <input type="checkbox"/> Mining <input type="checkbox"/> Outfall Structure <input type="checkbox"/> Piling/Dolphin <input type="checkbox"/> Raft	<input checked="" type="checkbox"/> Retaining Wall (upland) <input checked="" type="checkbox"/> Road <input type="checkbox"/> Scientific Measurement Device <input type="checkbox"/> Stairs <input checked="" type="checkbox"/> Stormwater facility <input type="checkbox"/> Swimming Pool <input checked="" type="checkbox"/> Utility Line
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☒ Other: Constructing railroad and rail unloading facility, relocating utilities and pipelines.

6e. Describe how you plan to construct each project element checked in 6d. 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 floodplain.

Standard and heavy earth-moving and grading equipment will be used to construct the cuts and fills necessary for base of the proposed rail lines. The process starts with constructing the temporary erosion and sediment control (TESC) measures to limit and control construction run-off and erosion. Surveyors will establish clearing limits before any earth is moved. Clearing and grubbing the topsoil and removal of portions of forest occur next. Topsoil material and debris will be removed to approved sites listed in the approved permit applications for this project.

Before the construction of this facility can progress, the existing pipelines and power lines will be relocated, creating the additional space and clearances necessary for the unloading area. Coordination with the utility agencies to satisfy each individual set of requirements, already started, will continue through the construction period.

Haul roads and stockpile areas will be established, and excavation will commence. Much of the material will be hauled away from this site to approved disposal sites. Any contaminated material will be dealt with separately and disposed of properly. At approximately the same time excavated material is leaving the site, imported backfill will be brought onto the site and stockpiled for use in constructing the facility. For a period of about 3 months, steady truck traffic can be expected on the local roads adjacent to the refinery. During this time, many of the permanent stormwater facilities will be constructed and prepared for the project to use.

As the excavation reaches finished grade level, a liner will be placed to prevent any potential spills from leaving the site. This liner is another of the measures that Shell PSR will be providing to limit any environmental danger should some accident occur during unloading of these cars. Backfill material will be placed over this liner, and

construction of the unloading facility will proceed.

The general contractor will have multiple specialty contractors performing at the same time. There will be crews excavating for foundations and other crews will be fabricating elements that get delivered to the site for the various structures needed. These elements will be brought by truck to established on-site laydown areas and assembled by other subcontractors according to the specific trade/craft needed. Concrete and wooden ties will be brought in, depending on the location and use intended, and placed to receive the rails. Rail will be brought to the site, either by truck or rail, and welded into continuous strings for assembling this portion of the project.

Piping for the crude header will be brought in, installed and backfilled before the rails and elevated structures are finished. Bridge elements will be brought in, stockpiled, and assembled, keeping the extension of 4th Street to the turnaround parking that is east of these new rails available for other refinery activities.

Permanent structures will be brought to the site and assembled or placed according to design requirements. The pump pad and pumps for transferring the crude to the refinery will be constructed and installed. Emergency fire water system components will be brought in and assembled.

Concurrent with work going on adjacent to the refinery, crews will be constructing a new access road from near 8th and E Street to the unloading facility. Other work inside the refinery will include installing tie-ins for services, various piping connections, and other essential communications elements.

Rail, rail supports, associated access roads, off-loading facilities, pipe rack, and stormwater ponds will be constructed in sequence after the route has been graded using standard construction methods and equipment following BNSF, Shell, and other applicable agency guidelines and safety standards. Best management practices and a stormwater pollution prevention plan will be used to control on-site stormwater during the construction period. Refer to Sheets 9 to 14 for the proposed project layout and its relative proximity to on-site wetlands.

For all of the work described above, there will be construction observers and inspections that satisfy other permit requirements and quality control measures, some agency-related and some required by Shell PSR specifications and procedures. Startup of the facility will occur only after all of these measures have been satisfied and approved by the jurisdictions involved.

The activities within the 100-year floodplain are limited to improvements to the BNSF rail line at the east end of the project area.

6f. What are the anticipated 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: January 1, 2015

End date: December 31, 2015

☐ See JARPA Attachment D

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

\$105,000,000

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

Due to the predominance of wetlands in the project vicinity, limited site alternatives near the refinery, and the design requirements of a rail offloading facility, permanent wetland impacts are unavoidable. Several potential rail alternatives were reviewed to ensure that wetland impacts were avoided and/or minimized to the maximum extent practicable while still meeting design and safety criteria. Associated facilities, including two constructed stormwater ponds, are located in upland areas where possible. Most of the high-quality forested wetlands will be avoided, as well as all estuarine wetlands. The largest impacts occur to low-quality, grazed pasture wetlands. Best management practices will be utilized to minimize damage to existing vegetation. Where possible, restorative measures will be utilized to return areas of temporary disturbance back to near/better than the original pre-construction condition. Erosion and sedimentation controls will be utilized to minimize water quality impacts. Stormwater design will follow all state and local requirements. See the Alternatives Analysis and Mitigation Bank Use Plan prepared for this project for more details.

7b. Will the project impact wetlands? [\[help\]](#)

☒ Yes ☐ No ☐ Don't know

7c. Will the project impact wetland buffers? [\[help\]](#)

☒ Yes ☐ No ☐ Don't know

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

The impacts from the project are proposed to be compensated for by purchase of credits at a Skagit County mitigation bank. A bank use plan has been prepared for the project.

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

The Mitigation Bank Use Plan prepared for this project provides:

- A complete project description;
- An assessment of all permanent and temporary impacts to wetlands, other waters and buffers;
- A description of how impacts have been avoided or minimized (mitigation sequencing); and
- A discussion of how impacts will be compensated for through purchase of mitigation bank credits.

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. [\[help\]](#)

Wetland Name	Wetland Rating Category	Vegetation Class of the Impact Area	Project Activity	Wetland Impact Area (Acres)	Type of impact
D	III	Emergent	Excavation	10.51	Direct Permanent
				1.76	Indirect Permanent
			Clearing/Access/Pipeline Reroute and Installation	5.66	Short-Term Temporary
		Scrub-Shrub	Water Pipeline Installation	0.06	Conversion
		Forested ¹	Excavation	3.19	Direct Permanent
				0.61	Indirect Permanent
			Clearing/Access	0.24	Long-Term Temporary
			Pipeline Reroutes/ Water Pipe Installation	0.17	Conversion
E	III	Emergent	Excavation	4.57	Direct Permanent
				1.12	Indirect Permanent
			Clearing/Access/Pipeline Reroutes/Road Improvements	0.58	Short-Term Temporary
			Vacating of Existing Wetland Mitigation Area	1.20	Direct Permanent
		Scrub-Shrub	Excavation	0.35	Direct Permanent
				0.15	Indirect Permanent
		Forested	"Oily Water" Pipeline Installation	0.18	Conversion
I1	II	Emergent	Fill	0.09	Direct Permanent
			Clearing/Access	0.37	Short-Term Temporary
		Forest	Fill	0.02	Direct Permanent
I2	IV	Emergent	Fill/Excavation	0.31	Direct Permanent
				0.04	Indirect Permanent
J	IV	Emergent	Clearing/Access	0.02	Short-Term Temporary
Q	III	Scrub-Shrub	Fill	0.81	Direct Permanent
				0.20	Indirect Permanent
T	III	Forested	Excavation (pond)	0.12	Direct Permanent
U	IV	Emergent	Excavation (pond)	0.24	Direct Permanent
V	IV	Emergent	Excavation (pond and outlet pipe)	0.11	Short-Term Temporary
Project Totals				21.41	Direct Permanent
				3.88	Indirect Permanent
				0.41	Conversion
				0.24	Long-Term Temporary
				6.74	Short-Term Temporary

¹Only the wetland area is given, which represents approximately 70 percent of the forested mosaic areas of Wetland D.

Page number(s) for similar information in the mitigation plan, if available: See Section 2 of the Mitigation Bank Use Plan

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. [\[help\]](#)

Wetland Name	Project Activity	Volume in wetlands (cubic yards)
D	Excavation	143,211
	Fill	474

E	Excavation	81,240
I1	Fill	650
I2	Excavation	1,040
	Fill	30
Q	Fill	7,290
T	Excavation	4,810
U	Excavation	5,980
Totals	Excavation	236,281
	Fill	8,444

Clean soil material excavated on site for this project would be utilized for fill. See question 6e above for construction methods.

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. [\[help\]](#)

See questions 7i for excavation volumes and 6e for construction methods. Excavated material not utilized on site would be transported to an appropriate upland site within Skagit County for disposal.

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

One stream (Stream S) and thirteen ditches occur in the project vicinity. Estuarine waters (and wetlands) adjacent to Padilla Bay are located in the southeast corner of the project area. The proposed project has been located to avoid and minimize adverse impacts to streams, ditches, and other waters to the maximum extent possible. Multiple sites, alignments, and site layouts were assessed within the constraints of railroad layout design specifications and access to the refinery facility. Impacts to estuarine waters (and estuarine wetlands) will be entirely avoided. Impacts to the stream are limited to the upper, non-fish-bearing reach. The lower two-thirds of the stream and the estuarine wetlands and their buffers will be fenced off from cattle grazing (Sheet 15). Native woody plants will be installed in the fenced riparian area of Stream S and the fenced buffer of the estuarine wetlands. The proposed area to be fenced and planted is approximately 8 acres.

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. <ul style="list-style-type: none"> If you already completed 7g you do not need to restate your answer here. [help] 					
See 7g.					
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 (cubic yards [CY]) to be placed in or removed from waterbody	Linear feet (LF) of waterbody directly affected
Place into 24-inch culvert	Stream S	Upper reach	Permanent	2 CY	50 LF
Reroute channel	Stream S	Upper reach	Permanent	N/A	175 LF
Riprap outfalls for three culverts	Stream S	Upper reach	Permanent	1.5 CY	N/A
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]					
Construction of the rail facilities will require rerouting and piping of ditches that currently flow into Stream S (see Sheet 10). Ditch E2 will be rerouted to the south along the existing rail spur and into Ditch I. This will require a new 24-inch culvert under South Texas Road. The combined Ditch E2/I will be placed into a 36-inch culvert under the rail alignment. This culvert will continue to convey flow into Stream S. Ditch E3 will be placed into a 24-inch culvert under South Texas Road. The culvert will outfall at the upper end of Stream S. Approximately 0.5 CY of riprap will be placed at each of three culvert outfalls within Stream S. The rerouted Stream S channel will be approximately 4 feet wide and 1.5 feet deep (bankfull).					
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]					
N/A					

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
U.S. Army Corps of Engineers	Ron Wilcox	(206) 316-3893	October 2013
WA Dept. of Ecology	Paul Anderson	(425) 649-7148	October 2013

Skagit County	Leah Forbes	(360) 336-9410 ext 5659	November 2013
WA Fish and Wildlife	Doug Thompson	(360) 446-4345 ext 251	October 2013
City of Anacortes	Ryan Larsen	(360) 299-1942	November 2013
WA Dept. of Natural Resources	Linda Utgard	(360) 856-3500	October 2013

9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 of this JARPA 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

Padilla Bay – bacteria, Chrysene, Bena[a]anthracene, TCDD (parameters listed here are category 5; all other parameters not listed here were category 1)

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.

Puget Sound Watershed -- 17110019

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 3 - Lower Skagit/Samish

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 unknown

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 ☐ Non-Fish Perennial ☒ Non-Fish Seasonal

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 N/A

Name of manual:

9i. Does the project site have known contaminated sediment? [\[help\]](#)

<ul style="list-style-type: none"> • If Yes, please describe below.
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
9j. If you know what the property was used for in the past, describe below. [help]
<p>Prior to the refinery, the site was in small farms and residences. Much of the project site is currently used for grazing.</p>
9k. Has a cultural resource (archaeological) survey been performed on the project area? [help]
<ul style="list-style-type: none"> • If Yes, attach it to your JARPA package.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

9l. 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]
<p>No federally listed terrestrial species have the potential to occur in the vicinity of Anacortes. Eleven Endangered Species Act-listed species either occur or have the potential to occur in the inland waters or nearshore habitats of Washington. Of the 11 species, seven were considered not likely to be present because they have only been seen in Padilla Bay historically (rarely), the water is too shallow, or they have not yet been documented as present near the project site. Those seven species considered not likely to be present are as follows: southern DPS of North American green sturgeon, Southern DPS of eulachon, bocaccio rockfish, canary rockfish, and yelloweye rockfish, Southern Resident killer whale, and Steller sea lion. The remaining four species are known to occur in Padilla Bay near the project site: Puget Sound Chinook salmon, Puget Sound steelhead, bull trout, and marbled murrelet.</p>
9m. 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]
<p>Two bald eagle (state sensitive) nests are located on the site. The nests would be considered "active" since they are in good condition. If any nests require removal, an Eagle Disturbance Take permit would be acquired from the U.S. Fish and Wildlife Service. In addition, tree removal would occur outside of nesting season.</p>
<p>The Priority Habitat and Species habitats that are affected are wetlands. The impacts are described above.</p>

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 addresses to send your JARPA to, click on [agency addresses for completed JARPA](#).

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [help]
<ul style="list-style-type: none"> • For more information about SEPA, go to www.ecy.wa.gov/programs/sea/sepa/e-review.html.
<input type="checkbox"/> A copy of the SEPA determination or letter of exemption is included with this application.
<input checked="" type="checkbox"/> A SEPA determination is pending with <u>Skagit County</u> (lead agency). The expected decision date is _____.
<input type="checkbox"/> 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:

- ☒ 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 – [Attach Exemption Form](#)

Effective July 10, 2012, you must submit a check for \$150 to Washington Department of Fish and Wildlife, unless your project qualifies for an exemption or alternative payment method below. **Do not send cash.**

Check the appropriate boxes:

- ☒ \$150 check enclosed. (Check # _____)
Attach check made payable to Washington Department of Fish and Wildlife.
- ☐ Charge to billing account under agreement with WDFW. (Agreement # _____)
- ☐ My project is exempt from the application fee. (Check appropriate exemption)
- ☐ HPA processing is conducted by applicant-funded WDFW staff.
(Agreement # _____)
- ☐ Mineral prospecting and mining.
- ☐ Project occurs on farm and agricultural land.
(Attach a copy of current land use classification recorded with the county auditor, or other proof of current land use.)
- ☐ Project is a modification of an existing HPA originally applied for, prior to July 10, 2012.
(HPA # _____)

Washington Department of Natural Resources:

- ☐ Aquatic Use Authorization
- Complete [JARPA Attachment E](#) and submit a check for \$25 payable to the Washington Department of Natural Resources.
Do not send cash.

Washington Department of Ecology:

- ☒ Section 401 Water Quality Certification

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. TJR (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. TJR (initial)

Thomas J. Rizzo
Applicant Printed Name

Thomas J. Rizzo
Applicant Signature

12/12/13
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.

Jeff Walker
Authorized Agent Printed Name

Jeff Walker
Authorized Agent Signature

12-12-13
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) at (800) 917-0043. 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 rev. 06-12



WASHINGTON STATE
Joint Aquatic Resources Permit
Application (JARPA) [\[help\]](#)



US Army Corps
of Engineers
Seattle District

Attachment A:
For additional property owner(s) [\[help\]](#)

AGENCY USE ONLY

Date received: _____

Agency reference #: _____

Tax Parcel #(s): _____

TO BE COMPLETED BY APPLICANT [\[help\]](#)

Project Name: Crude by Rail East Gate

Use this attachment only if you have more than one property owner. Complete one attachment for each additional property owner impacted by the project.

Signatures of property owners are not needed for repair or maintenance activities on existing rights-of-way or easements.

Use black or blue ink to enter answers in white spaces below.

1. Name (Last, First, Middle) and Organization (if applicable)			
GAZ, GLEN M.			
2. Mailing Address (Street or PO Box)			
2454 OCCIDENTAL AVE S., BLDG 2-D			
3. City, State, Zip			
SEATTLE, WA 98134			
4. Phone (1)	5. Phone (2)	6. Fax	7. E-mail
(206) 625-6150	()	(206) 625-6354	glen.gaz@bnsf.com
Address or tax parcel number of property you own:			
Signature of Property Owner			
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.			
GLEN M. GAZ			
Printed Name		Signature	

If you require this document in another format, contact the Governor's Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ENV-020-09 rev. 08/2013



WASHINGTON STATE
Joint Aquatic Resources Permit
Application (JARPA) [\[help\]](#)



Attachment C:
Contact information for adjoining
property owners. [\[help\]](#)

Use this attachment only if you have more than four adjoining property owners.

AGENCY USE ONLY

Date received: _____

Agency reference #: _____

Tax Parcel #(s): _____

TO BE COMPLETED BY APPLICANT [\[help\]](#)

Project Name: Crude by Rail East Gate

Location Name (if applicable): _____

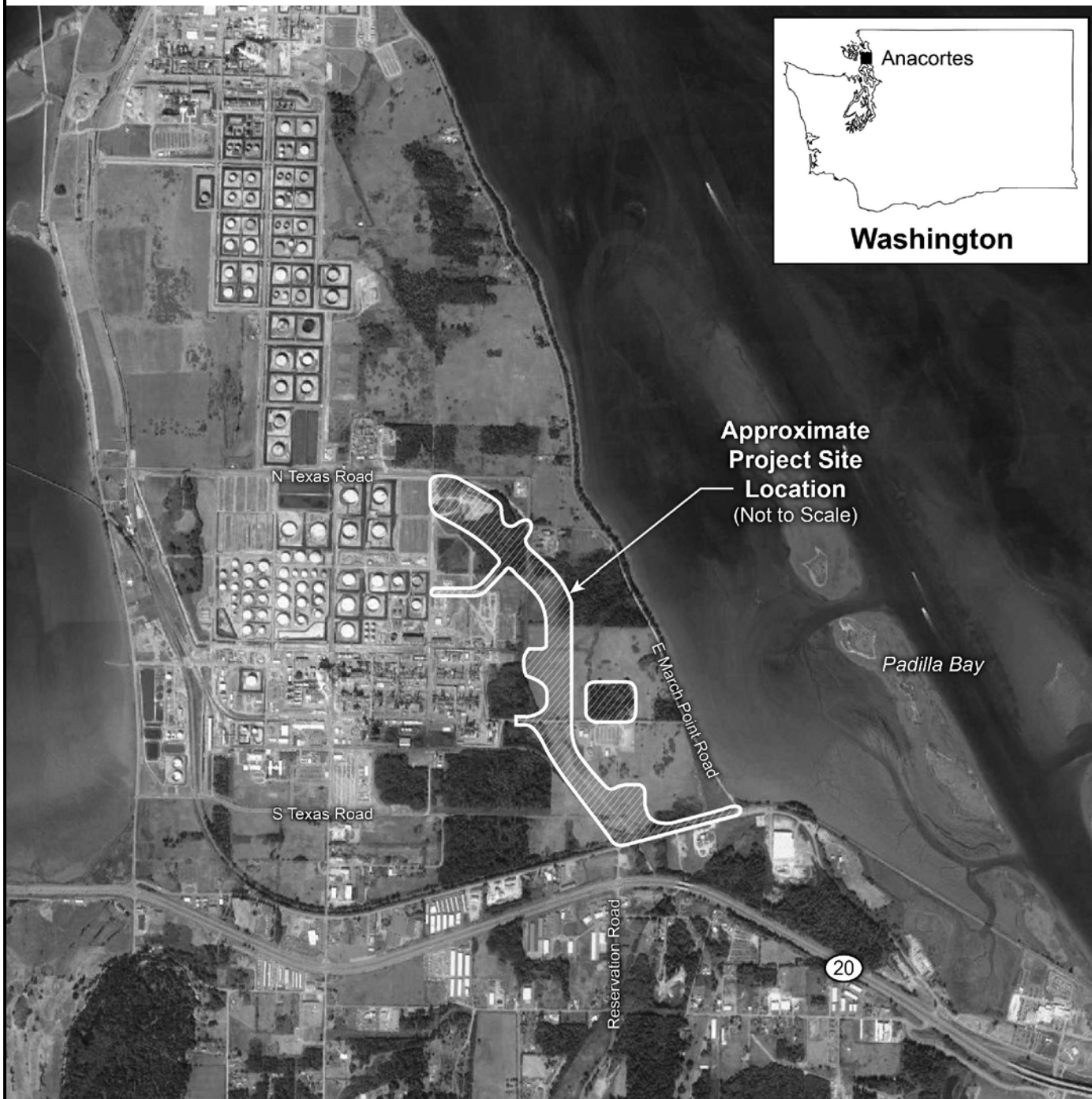
Anacortes, Washington

Use black or blue ink to enter answers in white spaces below.

1. Contact information for all adjoining property owners. [\[help\]](#)

Name	Mailing Address	Tax Parcel # (if known)
Tesoro Refining and Marketing Co.	13111 Northwest Frwy #125 Houston, TX 77040	P33491
General Chemical LLC	90 E Halsey Rd. Parsippany, NJ 07054	P33486
Four-H Machine LLC ATTN Personal Property	9056 N Texas Rd. Anacortes, WA 98221	P33500
Norma Jean Harlow	13385 N Green St. Anacortes, WA 98221	P19726
City of Anacortes	PO Box 547 Anacortes, WA 98221	P19725
Venoil LLC C/O Oil Re-refining Co	4150 N Shuttle Rd. Portland, OR 97217	P19724
Terry Sanderson	17347 West Skyridge Dr. Mount Vernon, WA 98273	P19688
William W. Wooding	13540 Rosario Rd. Anacortes, WA 98221	P19718
State of Washington & Dept. of Natural Resources, State Lands Div.	PO Box 47016 Olympia, WA 98504	P19710

If you require this document in another format, contact the Governor's Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ENV-022-09 rev. 08/2013



**Approximate
Project Site
Location**
(Not to Scale)



SHEET 1
PROJECT SITE LOCATION

Applicant: Shell

Reference Number:

Adjacent Property Owners:
See Attachment C

Project Address: 8505 South Texas Road
Anacortes, WA 98221

Lat/Long: Start: 48N-27-57, 122W-32-14
End: 48N-28-41, 122W-33-14

Datum: Horizontal datum based on
'Shell Anacortes Refinery'
local coordinate grid.
Vertical Datum NAVD88.

Sheet: 1 of 18 **Date:** 12/6/2013

Proposed Project:

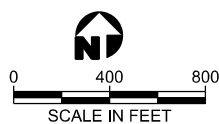
Crude by Rail East Gate

In: Wetlands

Near/At: Anacortes (Shell Puget Sound Refinery)

County: Skagit

State: WA



LEGEND
 WETLAND
 STUDY AREA
 BOUNDARY

SHEET 2 SHEET PLAN

Applicant: Shell

Reference Number:

Adjacent Property Owners:
See Attachment C

Project Address: 8505 South Texas Road
Anacortes, WA 98221

Lat/Long: Start: 48N-27-57, 122W-32-14
End: 48N-28-41, 122W-33-14

Datum: Horizontal datum based on
'Shell Anacortes Refinery'
local coordinate grid.
Vertical Datum NAVD88.

Sheet: 02 of 18 **Date:** 12/10/2013

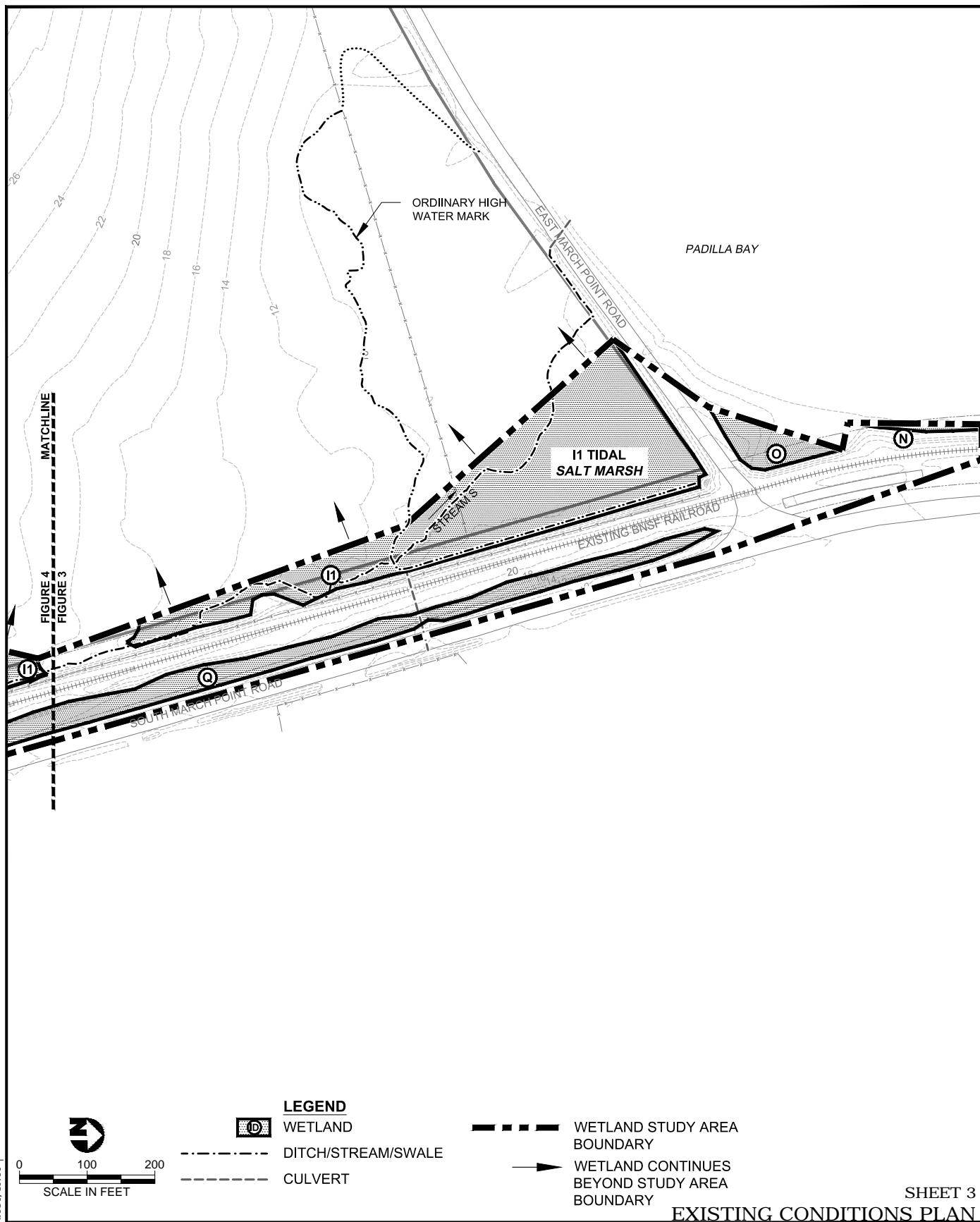
Proposed Project:
Crude by Rail East Gate

In: Wetlands

Near/At: Anacortes (Shell Puget Sound Refinery)

County: Skagit

State: WA



SHEET 3

EXISTING CONDITIONS PLAN

Applicant: Shell

Reference Number:

Adjacent Property Owners:
See Attachment C

Project Address: 8505 South Texas Road
Anacortes, WA 98221

Lat/Long: Start: 48N-27-57, 122W-32-14
End: 48N-28-41, 122W-33-14

Datum: Horizontal datum based on
'Shell Anacortes Refinery'
local coordinate grid.
Vertical Datum NAVD88.

Sheet: 3 of 18 **Date:** 12/6/2013

Proposed Project:

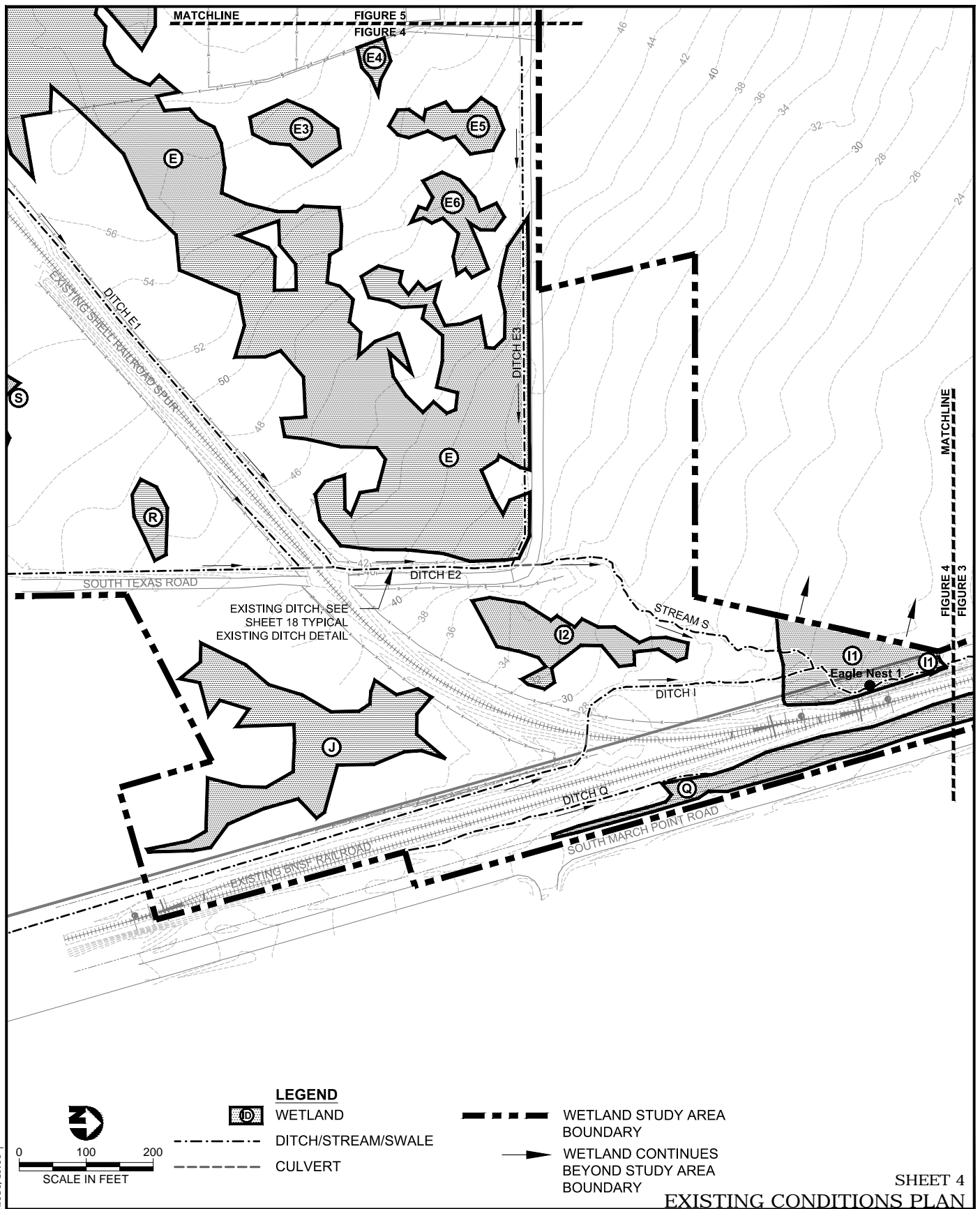
Crude by Rail East Gate

In: Wetlands

Near/At: Anacortes (Shell Puget Sound Refinery)

County: Skagit

State: WA



SHEET 4

EXISTING CONDITIONS PLAN

Applicant: Shell

Reference Number:

Adjacent Property Owners:
See Attachment C

Project Address: 8505 South Texas Road
Anacortes, WA 98221

Lat/Long: Start: 48N-27-57, 122W-32-14
End: 48N-28-41, 122W-33-14

Datum: Horizontal datum based on
'Shell Anacortes Refinery'
local coordinate grid.
Vertical Datum NAVD88.

Sheet: 4 of 18 **Date:** 12/6/2013

Proposed Project:

Crude by Rail East Gate

In: Wetlands

Near/At: Anacortes (Shell Puget Sound Refinery)

County: Skagit

State: WA



SHEET 6

EXISTING CONDITIONS PLAN

Applicant: Shell

Reference Number:

Adjacent Property Owners:
See Attachment C

Project Address: 8505 South Texas Road
Anacortes, WA 98221

Lat/Long: Start: 48N-27-57, 122W-32-14
End: 48N-28-41, 122W-33-14

Datum: Horizontal datum based on
'Shell Anacortes Refinery'
local coordinate grid.
Vertical Datum NAVD88.

Sheet: 5 of 18 **Date:** 12/6/2013

Proposed Project:

Crude by Rail East Gate

In: Wetlands

Near/At: Anacortes (Shell Puget Sound Refinery)

County: Skagit

State: WA

J:\GIS\Projects\SHELL\Puget Sound Refinery\SubTasks\Crude Rail\Wetland\Mitigation\JARPAS\Sheet 03-08 (Existing Cond Plans).dwg
Mod: 03/17/2014, 11:25 | Plotted: 03/17/2014, 15:45 |



SHEET 7

EXISTING CONDITIONS PLAN

Applicant: Shell

Reference Number:

Adjacent Property Owners:
See Attachment C

Project Address: 8505 South Texas Road
Anacortes, WA 98221

Lat/Long: Start: 48N-27-57, 122W-32-14
End: 48N-28-41, 122W-33-14

Datum: Horizontal datum based on
'Shell Anacortes Refinery'
local coordinate grid.
Vertical Datum NAVD88.

Sheet: 7 of 18 **Date:** 12/6/2013

Proposed Project:

Crude by Rail East Gate

In: Wetlands

Near/At: Anacortes (Shell Puget Sound Refinery)

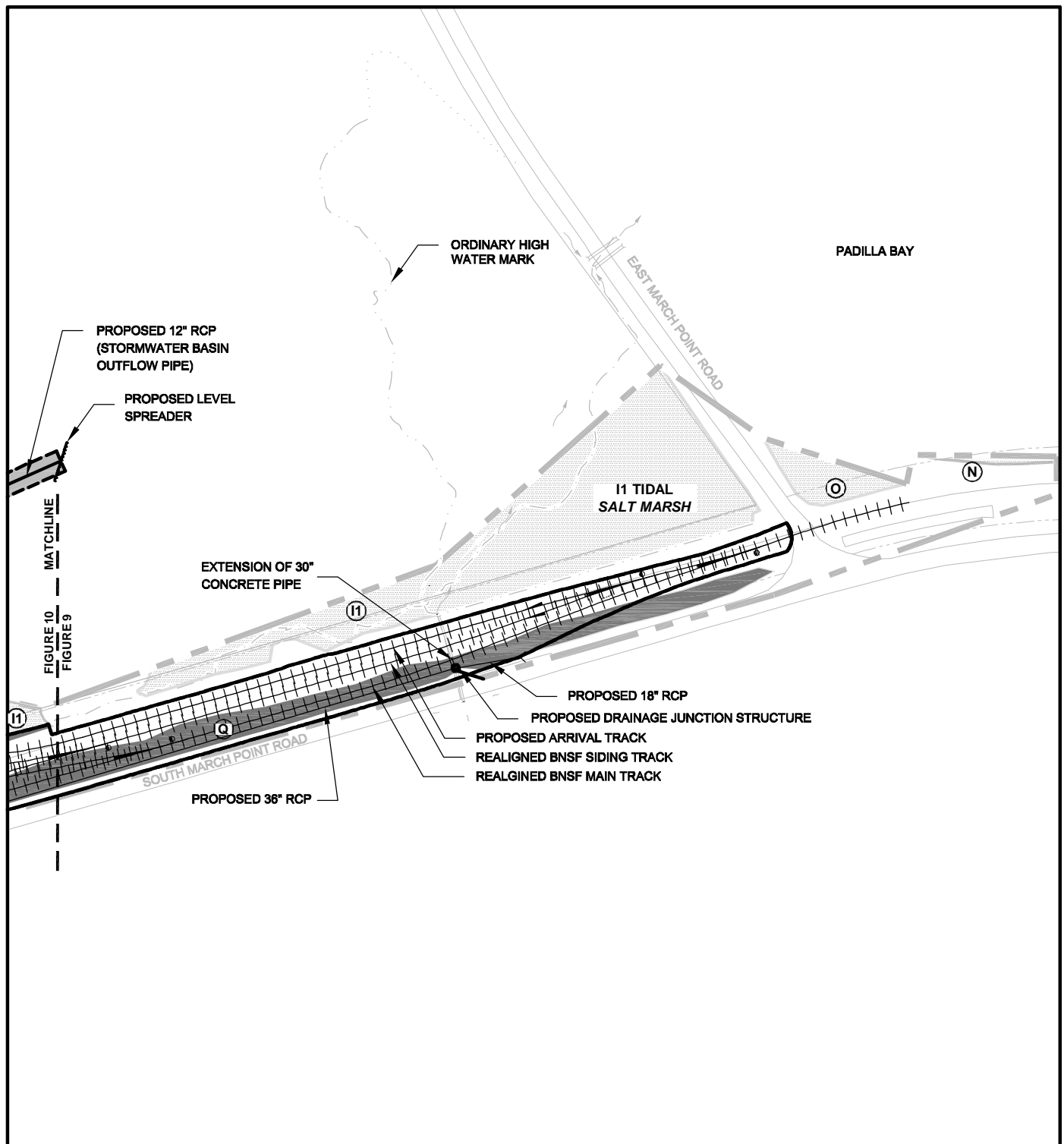
County: Skagit

State: WA

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Mod: 03/17/2014, 11:25 | Plotted: 03/17/2014, 15:45 |



Applicant: Shell	Project Address: 8505 South Texas Road Anacortes, WA 98221	Proposed Project: Crude by Rail East Gate
Reference Number:	Lat/Long: Start: 48N-27-57,122W-32-14 End: 48N-28-41, 122W-33-14	In: Wetlands
Adjacent Property Owners: See Attachment C	Datum: Horizontal datum based on 'Shell Anacortes Refinery' local coordinate grid. Vertical Datum NAVD88.	Near/At: Anacortes (Shell Puget Sound Refinery)
	Sheet: 8 of 18 Date: 12/6/2013	County: Skagit
		State: WA



LEGEND

WETLAND

DITCH/STREAM/SWALE

STUDY AREA BOUNDARY

N

SCALE IN FEET: 0, 100, 200

TEMPORARY IMPACT

PERMANENT/INDIRECT IMPACT

TEMPORARY LIMITS OF DISTURBANCE

PERMANENT LIMITS OF DISTURBANCE

NEW OR IMPROVED ACCESS ROAD

NEW TRACK

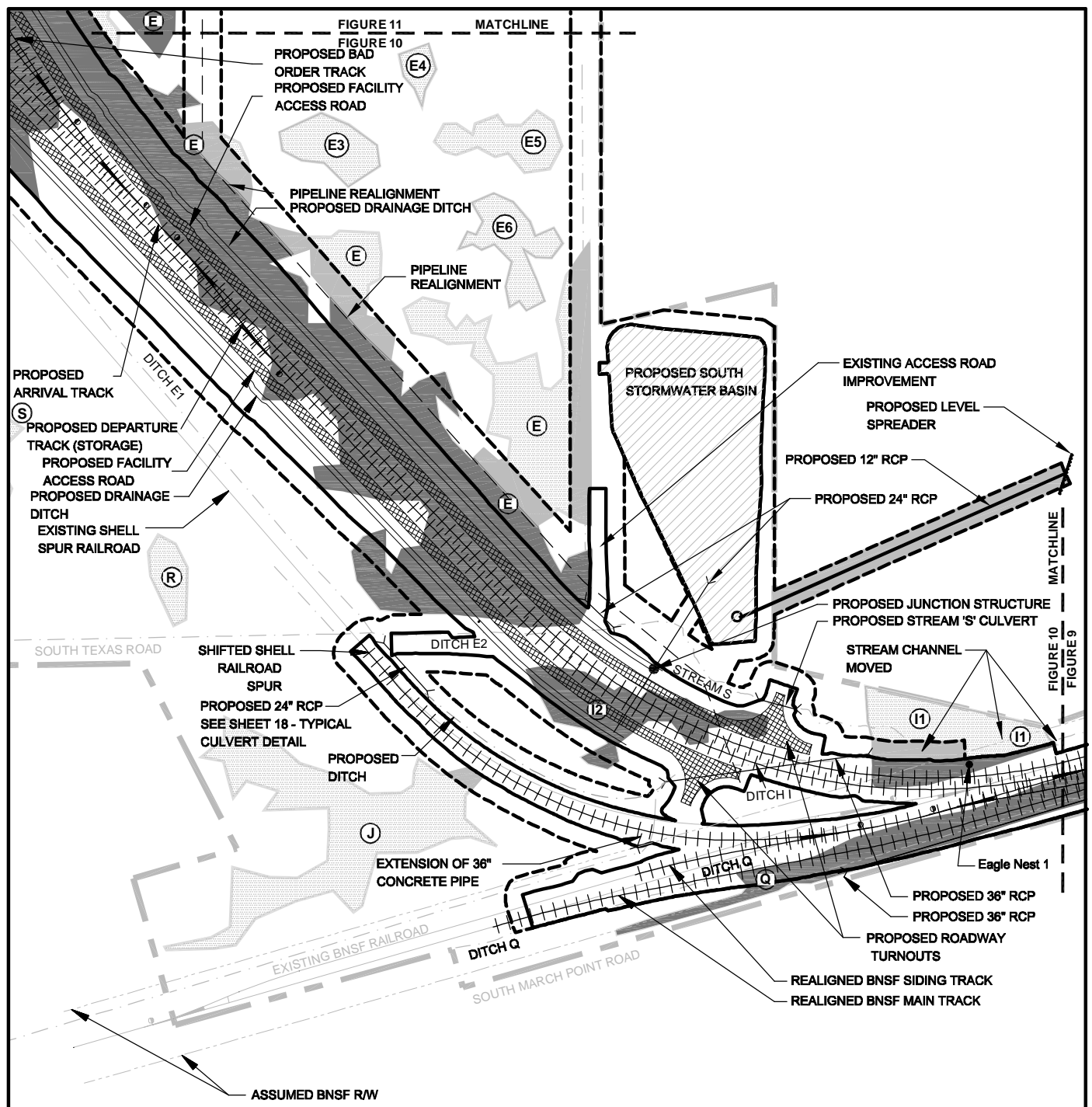
NEW CULVERT

REINFORCED CONCRETE PIPE

RCP

SHEET 9
IMPACT PLAN

<p>Applicant: Shell</p> <p>Reference Number:</p> <p>Adjacent Property Owners: See Attachment C</p>	<p>Project Address: 8505 South Texas Road Anacortes, WA 98221</p> <p>Lat/Long: Start: 48N-27-57, 122W-32-14 End: 48N-28-41, 122W-33-14</p> <p>Datum: Horizontal datum based on 'Shell Anacortes Refinery' local coordinate grid. Vertical Datum NAVD88.</p> <p>Sheet: 09 of 18 Date: 12/10/2013</p>	<p>Proposed Project: Crude by Rail East Gate</p> <p>In: Wetlands</p> <p>Near/At: Anacortes (Shell Puget Sound Refinery)</p> <p>County: Skagit</p> <p>State: WA</p>
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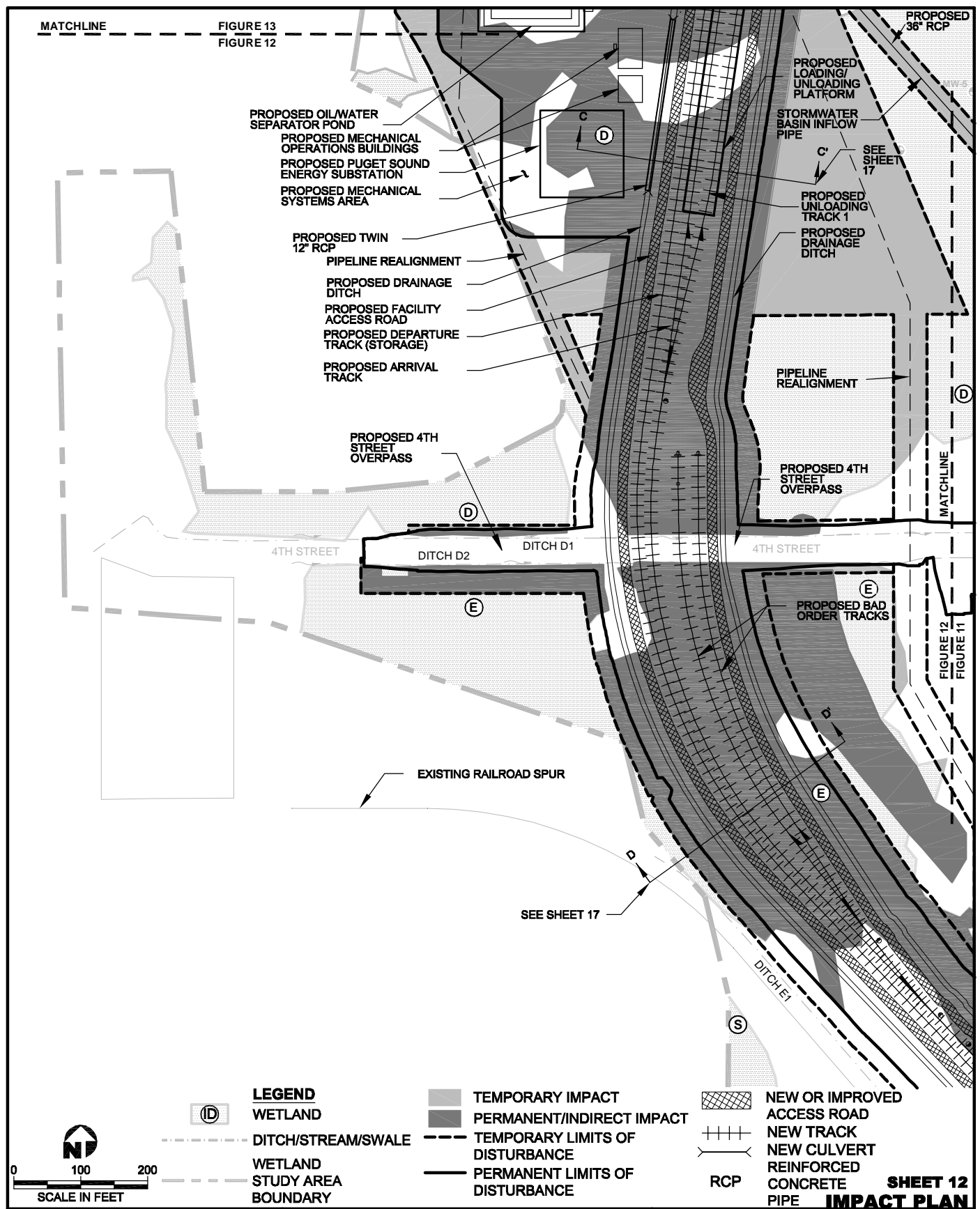


 SCALE IN FEET	LEGEND WETLAND DITCH/STREAM/SWALE STUDY AREA BOUNDARY	TEMPORARY IMPACT PERMANENT/INDIRECT IMPACT TEMPORARY LIMITS OF DISTURBANCE PERMANENT LIMITS OF DISTURBANCE	NEW OR IMPROVED ACCESS ROAD NEW TRACK NEW CULVERT REINFORCED CONCRETE PIPE RCP	SHEET 10 IMPACT PLAN
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Applicant: Shell Reference Number: Adjacent Property Owners: See Attachment C	Project Address: 8505 South Texas Road Anacortes, WA 98221 Lat/Long: Start: 48N-27-57,122W-32-14 End: 48N-28-41, 122W-33-14 Datum: Horizontal datum based on 'Shell Anacortes Refinery' local coordinate grid. Vertical Datum NAVD88. Sheet: 10 of 18 Date: 12/10/2013	Proposed Project: Crude by Rail East Gate In: Wetlands Near/At: Anacortes (Shell Puget Sound Refinery) County: Skagit State: WA
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State: WA



Applicant: Shell

Reference Number:

Adjacent Property Owners:
See Attachment C

Project Address: 8505 South Texas Road
Anacortes, WA 98221

Lat/Long: Start: 48N-27-57, 122W-32-14
End: 48N-28-41, 122W-33-14

Datum: Horizontal datum based on
'Shell Anacortes Refinery'
local coordinate grid.
Vertical Datum NAVD88.

Sheet: 12 of 18 **Date:** 12/10/2013

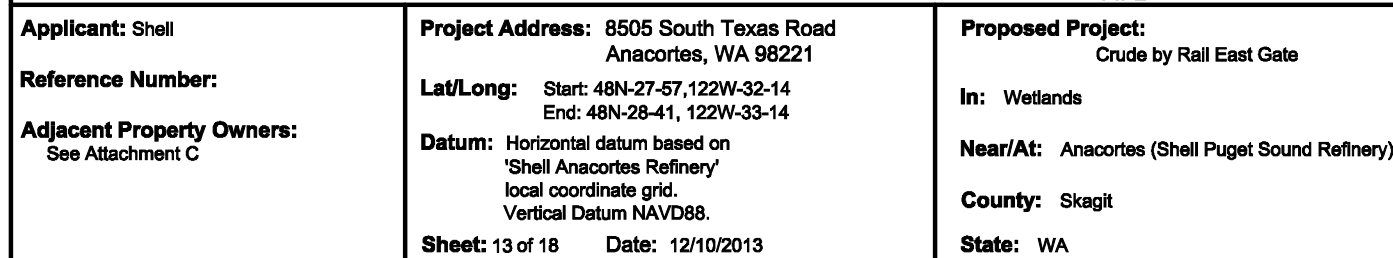
Proposed Project:
Crude by Rail East Gate

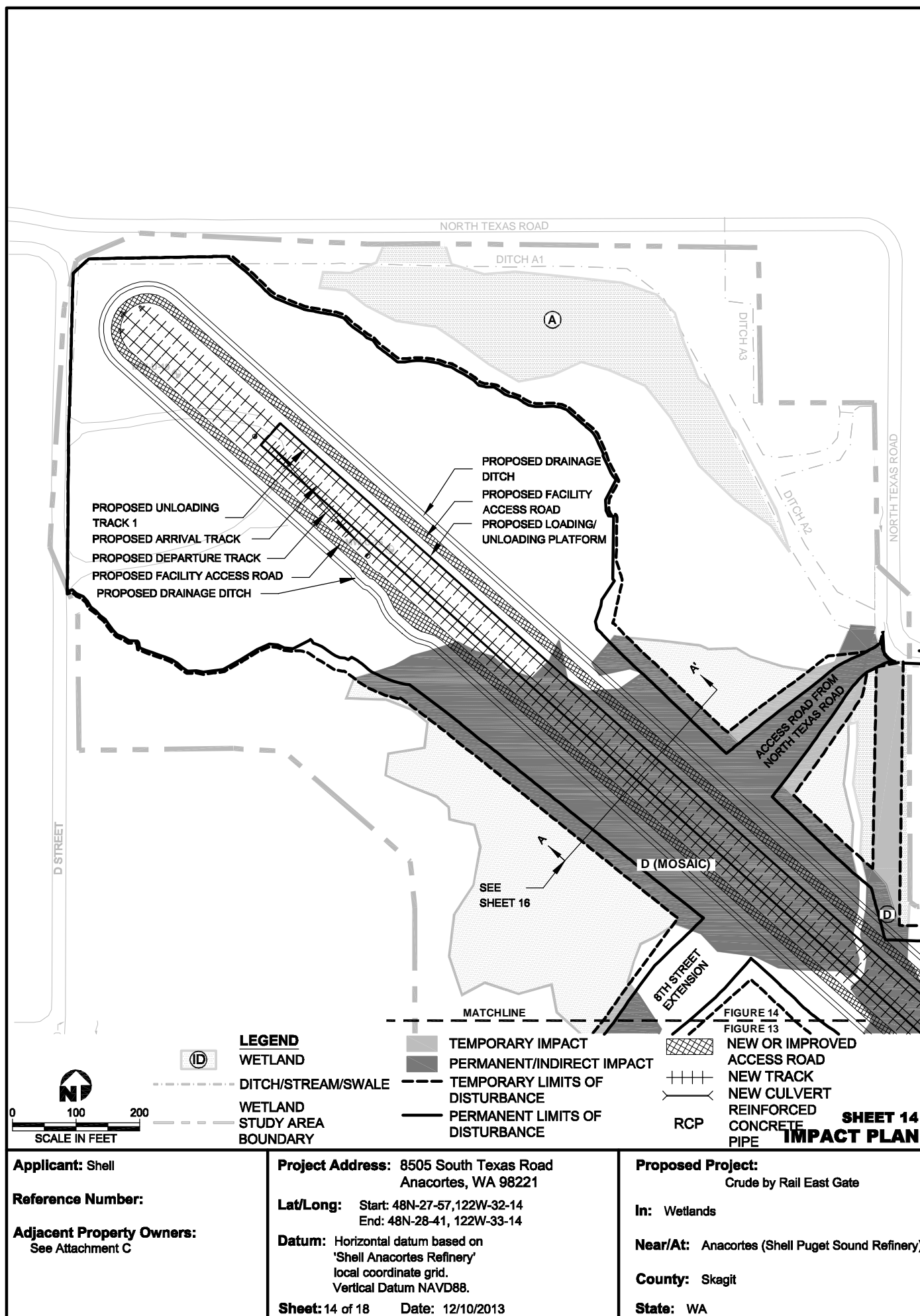
In: Wetlands

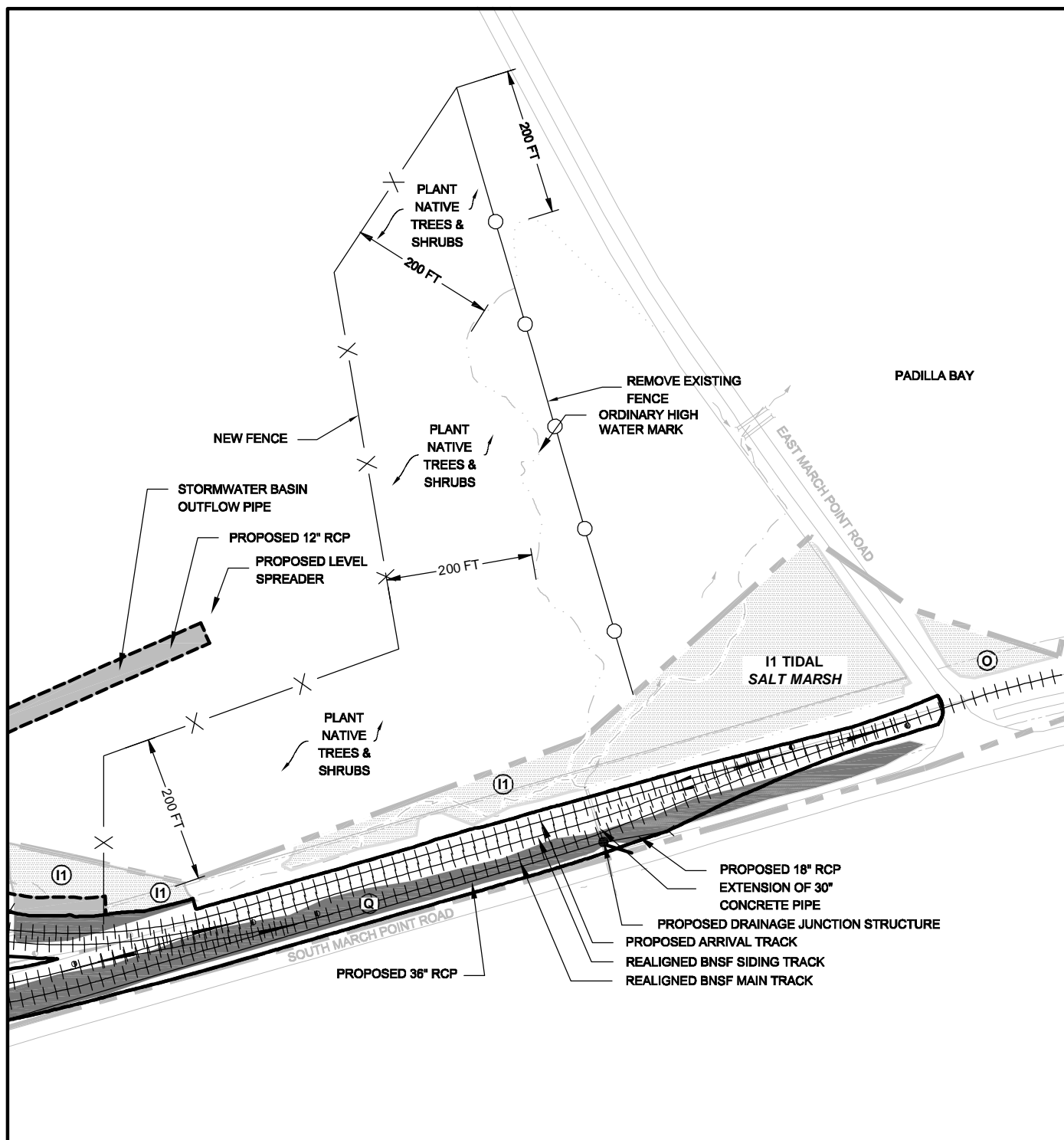
Near/At: Anacortes (Shell Puget Sound Refinery)

County: Skagit

State: WA

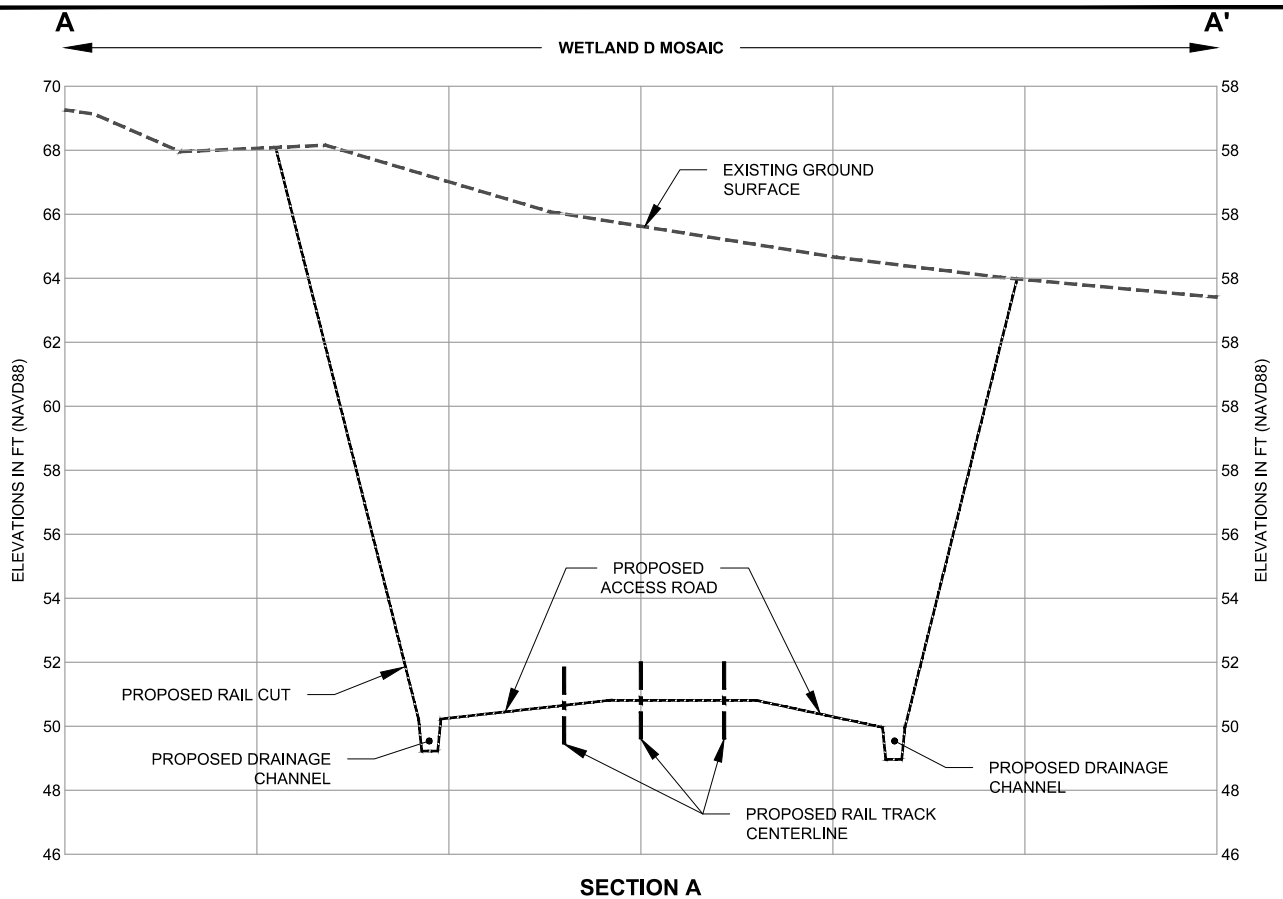




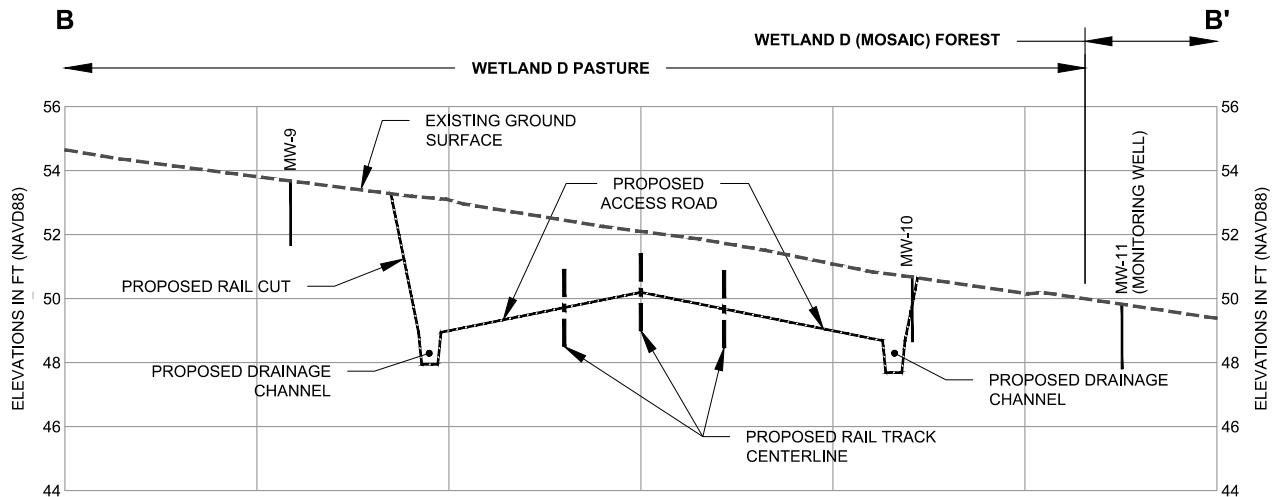


SHEET 15 **ONSITE RESTORATION PLAN**

<p>LEGEND</p> <p> WETLAND</p> <p> DITCH/STREAM/SWALE</p> <p> WETLAND STUDY AREA BOUNDARY</p> <p> TEMPORARY IMPACT</p> <p> PERMANENT/INDIRECT IMPACT</p> <p> TEMPORARY LIMITS OF DISTURBANCE</p> <p> PERMANENT LIMITS OF DISTURBANCE</p> <p> NEW OR IMPROVED ACCESS ROAD</p> <p> NEW TRACK</p> <p> NEW CULVERT</p> <p> REINFORCED CONCRETE PIPE</p> <p> RCP</p>	<p>APPLICANT: Shell</p> <p>REFERENCE NUMBER:</p> <p>ADJACENT PROPERTY OWNERS: See Attachment C</p> <p>PROJECT ADDRESS: 8505 South Texas Road Anacortes, WA 98221</p> <p>LAT/LONG: Start: 48N-27-57, 122W-32-14 End: 48N-28-41, 122W-33-14</p> <p>DATUM: Horizontal datum based on 'Shell Anacortes Refinery' local coordinate grid. Vertical Datum NAVD88.</p> <p>SHEET: 15 of 18 DATE: 12/10/2013</p>	<p>PROPOSED PROJECT: Crude by Rail East Gate</p> <p>IN: Wetlands</p> <p>NEAR/AT: Anacortes (Shell Puget Sound Refinery)</p> <p>COUNTY: Skagit</p> <p>STATE: WA</p>
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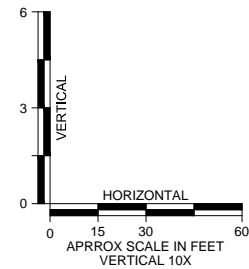


SECTION A



SECTION B

NOTE:
SECTIONS ARE EXAGGERATED 10 TIMES.



SHEET 16
SECTIONS

Applicant: Shell

Reference Number:

Adjacent Property Owners:
See Attachment C

Project Address: 8505 South Texas Road
Anacortes, WA 98221

Lat/Long: Start: 48N-27-57, 122W-32-14
End: 48N-28-41, 122W-33-14

Datum: Horizontal datum based on
'Shell Anacortes Refinery'
local coordinate grid.
Vertical Datum NAVD88.

Sheet: 16 of 18 **Date:** 12/6/2013

Proposed Project:

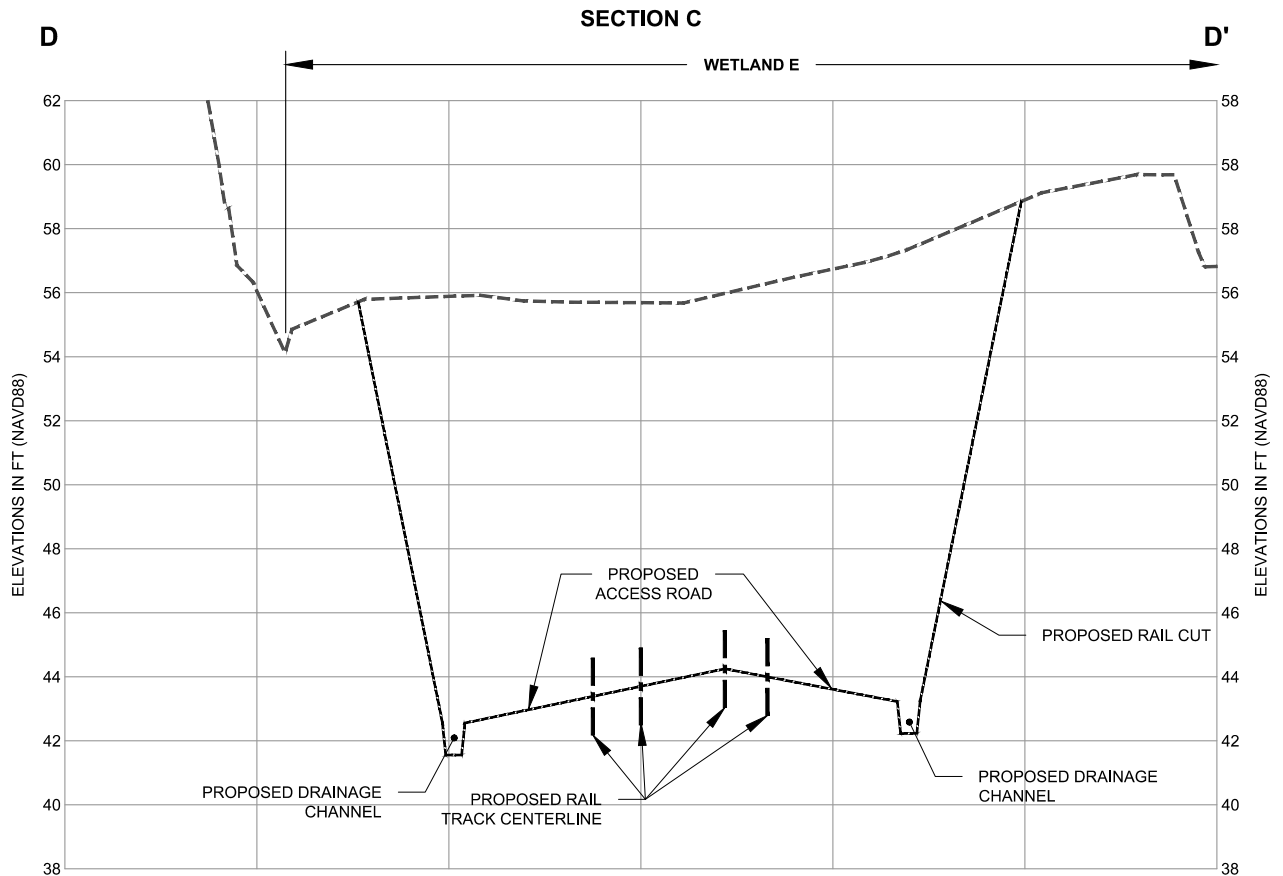
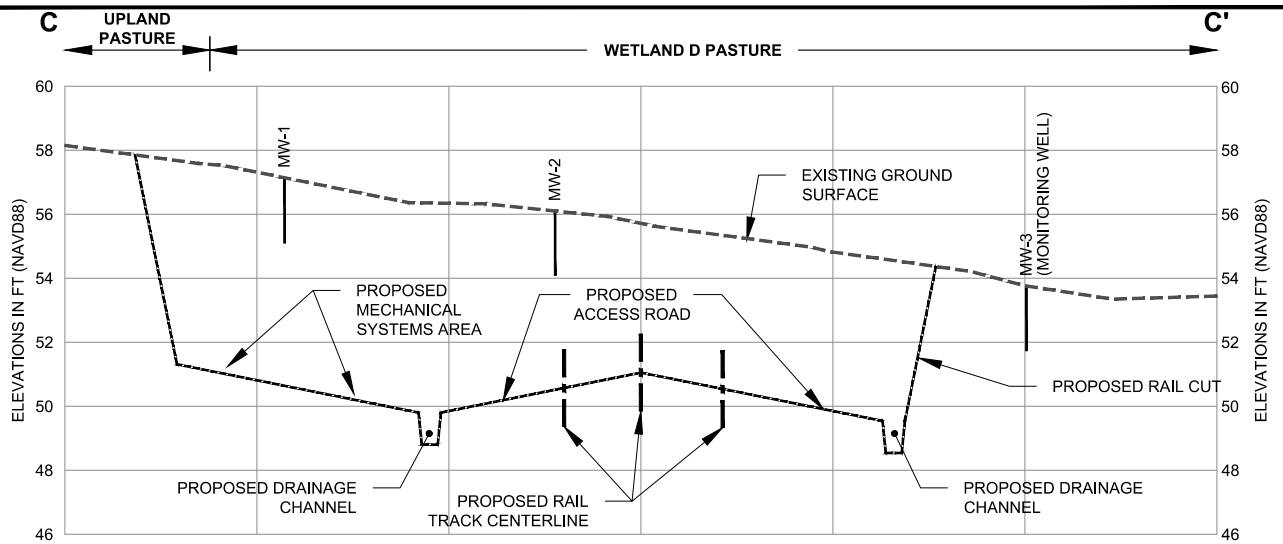
Crude by Rail East Gate

In: Wetlands

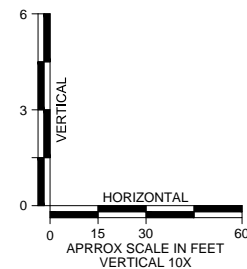
Near/At: Anacortes (Shell Puget Sound Refinery)

County: Skagit

State: WA



NOTE:
SECTIONS ARE EXAGGERATED 10 TIMES.



SHEET 17
SECTIONS

Applicant: Shell

Reference Number:

Adjacent Property Owners:
See Attachment C

Project Address: 8505 South Texas Road
Anacortes, WA 98221

Lat/Long: Start: 48N-27-57, 122W-32-14
End: 48N-28-41, 122W-33-14

Datum: Horizontal datum based on
'Shell Anacortes Refinery'
local coordinate grid.
Vertical Datum NAVD88.

Sheet: 17 of 18 **Date:** 12/6/2013

Proposed Project:

Crude by Rail East Gate

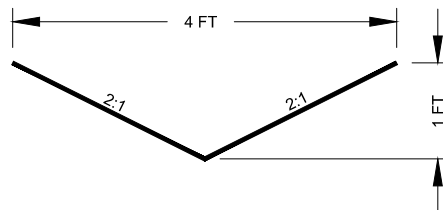
In: Wetlands

Near/At: Anacortes (Shell Puget Sound Refinery)

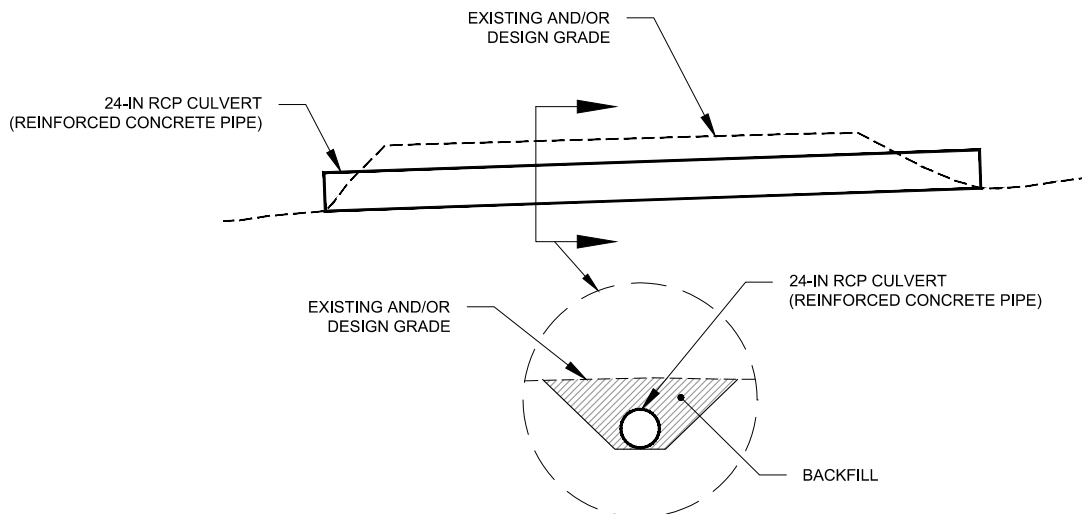
County: Skagit

State: WA

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Mod: 03/17/2014, 15:38 | Plotted: 03/17/2014, 15:39 |



TYPICAL EXISTING DITCH DETAIL
NOT TO SCALE



TYPICAL CULVERT DETAIL
NOT TO SCALE

SHEET 18
TYPICAL DITCH AND CULVERT DETAILS

Applicant: Shell	Project Address: 8505 South Texas Road Anacortes, WA 98221	Proposed Project: Crude by Rail East Gate
Reference Number:	Lat/Long: Start: 48N-27-57, 122W-32-14 End: 48N-28-41, 122W-33-14	In: Wetlands
Adjacent Property Owners: See Attachment C	Datum: Horizontal datum based on 'Shell Anacortes Refinery' local coordinate grid. Vertical Datum NAVD88.	Near/At: Anacortes (Shell Puget Sound Refinery)
	Sheet: 18 of 18 Date: 12/6/2013	County: Skagit
		State: WA