Skagit County Planning & Development Services
300 Continental Place • Mount Vernon, WA 98273
Inspections (360) 336-9306 • Office (360) 336-9410 • Fax (360) 336-9416

Environmental Checklist

Purpose of checklist: The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An Environmental Impact Statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts on the quality of the environment. The purpose of this checklist is to also provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposals, if it can be done) and to help the agency decide whether an EIS is required.

Required	Submitted	
☒	☒	**Fees.** Payment of $ 600 review fee due at submittal. (Publishing fees will be billed to applicants later in the application process) ***All costs associated with the preparation of any required Environmental Impact Statements shall be borne by the applicant.***
☒	☒	**Pre-addressed Stamped Envelopes.** Applicant shall provide pre-addressed stamped envelopes for Owners of Record within **300** feet of all subject property lines. • **One** set for independent SEPA applications. • **Two** sets for **Hearing Examiner Special Use and Variance** applications.

Instructions to the applicant

- Please describe some basic information about your proposal. Answer the questions briefly, with the most precise information known, or give the best description you can.
- Answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or a question does not apply to your proposal, write "do not know" or "does not apply". Complete answers to the questions now may avoid unnecessary delays later.
- Some questions ask about governmental regulations, such as zoning, shoreline and landward designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.
- The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. This checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impacts. Attach any additional information that will help your submittal
- Please disregard **D. Supplement Sheet for Non-Project Actions** if you are proposing a project.

For Non-Project SEPA proposals

- Complete this checklist for non-project proposals, even though the questions may be answered "does not apply". In addition, complete the Supplemental Sheet for non-project actions (Part D).

- For non-project actions, the references in the checklist to the words "project", "applicant" and "property or site" should be read as "proposal", "proposer" and "affected geographic area", respectively.

ENVIRONMENTAL CHECKLIST

A. BACKGROUND INFORMATION

1. **Name of proposed project, if applicable:** Crude by Rail East Gate Project

2. **Name of applicant:** Equilon Enterprises LLC dba Shell Oil Products US

3. **Address and phone number of applicant and contact person:**

Shell Main Contact
Brian Rhodes
Shell Oil Products US
PO Box 622
Anacortes, WA 98221
360.293.1761

Agent
Jeff Walker
URS Corporation
1501 4th Avenue, Suite 1400
Seattle, WA 98101
206.438.2351

Shell Signatory
Tom Rizzo
Shell Oil Products US
PO Box 622
Anacortes, WA 98221
360.293.0819

4. **Date checklist prepared:** December 18, 2013

5. **Agency requesting checklist:** Skagit County Planning and Development Services

6. **Proposed project timing or schedule *(including phasing, if applicable)*:** The following is a preliminary schedule, subject to change:
   - Execution Phase Engineering: March 2012 through March 2015
   - Construction: January 2015 through December 2015

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

   No future additions, expansions, or further activity related to or connected with this proposal are anticipated.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

   The following environmental information has been prepared directly related to this proposal:
   - Geotechnical Investigation, Equilon Enterprises LLC, March 2013
   - Cultural Resources Inventory Report, URS Corporation, November 2013
   - Wetland Delineation and Critical Areas Assessment, URS Corporation, November 2013
   - Limited Environmental Site Assessment, URS Corporation, December 2013
   - Biological Assessment, URS Corporation, December 2013
   - Bank Use Plan, URS Corporation, December 2013
   - CWA Section 404(b)(1) Alternatives Analysis, URS Corporation, December 2013

9. **Do you know of pending applications for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

   There are currently no pending applications directly affecting the property covered by this proposal.

10. **List any government approvals or permits that will be needed for your proposals, if known:**

    The following government approvals or permits are anticipated:
    - Clean Water Act Section 404 Individual Permit, U.S. Army Corps of Engineers
    - Clean Water Action Section 401 Water Quality Certification, Ecology
    - Coastal Zone Management Consistency Determination, Ecology
    - Construction Stormwater Permit, Ecology
    - Hydraulic Project Approval, Washington Department of Fish and Wildlife
    - OAC Air Permit, Northwest Clean Air Agency
    - Eagle Disturbance Take Permit, U.S. Fish and Wildlife Service
    - SEPA Determination, Skagit County
    - Shoreline Substantial Development Permit, Skagit County
    - Grading Permit, Skagit County
    - Floodplain Development Permit, Skagit County
    - Commercial Building Permit, Skagit County
    - Forest Practices Permit, Skagit County/Washington State Department of Natural Resources

11. **Give a complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist which ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.**

    Shell Puget Sound Refinery (PSR) proposes to build a rail spur from the existing adjacent Burlington Northern Santa Fe (BNSF) mainline onto Shell PSR property with

equipment to pump oil from rail cars into the refinery (see Figures 1 and 2). 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. Shell PSR proposes to construct and operate a new rail facility at the existing refinery to receive crude oil. 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 three trains per week with an average of 15 cars in each trip.

Existing rail facilities at the refinery are not designed to receive and unload unit train 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, WSDOT and Federal Railroad Administration rail design criteria; the site must be in close 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.

Shell PSR anticipates that they 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.

The project scope generally includes the following improvements:

- Arrival/departure rail track;
- Unloading area with two tracks and a concrete containment pad;
- Bad order railcar tracks with repair facilities[1];
- Personnel operations building and appurtenant facilities and limited parking;
- Perimeter inspection/security road;

[1] Rail cars that are identified as having issues that require repair, or identified as being unsafe for travel would be moved onto a designated rail section referred to as a "Bad Order track".

- 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; and
- Stormwater facilities.

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. The rail facility would consist of approximately 8,000 feet of unloading tracks with a concrete unloading pad, approximately 1,300 feet of track for temporary storage of rail cars that are taken out of service for repair and maintenance, and 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.

The crude oil transfer station would include vent headers, a containment area, drain connections and collection header, and tank car grounding. An operations shelter, storage shed, electrical structure and small employee parking lot would also be constructed in proximity to the crude oil transfer facility.

The proposed project would also 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 and some PSE power lines would have segments relocated. Two ponds are proposed to provide permanent storm water control. An oil/water separator pond would also be provided on the west side of the rail adjacent to the new facilities.

In order to mitigate for 21.41 acres of direct permanent wetland impacts, 3.88 acres of indirect permanent wetland impacts, 0.41 acre of permanent wetland conversion, and 0.24 acre of long-term temporary wetland impacts on the Shell PSR site, Shell would purchase credits at a Skagit County wetland mitigation bank. Wetland mitigation banking is a tool for compensating for unavoidable wetland impacts. A wetland mitigation bank is a site where wetlands are restored, created, enhanced or preserved through use of credits that can be used or sold to provide compensation for unavoidable wetland losses.

12. Location of the proposal. Please give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any. If a proposal should occur over a range of area, please provide the range or boundaries of the site(s). Please provide a legal description, site plan, vicinity map, and topographic map if possible. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. ***(Indicate if maps or plans have been submitted as part of a permit application.)***

The Shell PSR is located at 8505 South Texas Road, Anacortes, WA 98221 in western Skagit County on March's Point, along the southwestern edge of Padilla Bay. The project area for the proposed Crude by Rail East Gate project is approximately 50 acres and is bordered on the north by North Texas Road, on the south by South March Point Road, on the west by developed areas of the refinery (northern two-thirds) and undeveloped forest and pasture (southern one-third), and on the east by mainly grazed pasture, undeveloped forest, and East March Point Road.

A project vicinity map is attached as Figure 1. A site plan with topographic information is attached as Figure 2.

The project area is located on Parcel P33502 in the following Sections, Townships, and Ranges:

- NW ¼, Section 3, Township 34 N, Range 2 E
- NE ¼, Section 4, Township 34 N, Range 2 E
- NE and SE ¼, Section 33, Township 35 N, Range 2 E
- SW ¼, Section 34, Township 35 N, Range 2 E

The legal description for the project area is provided below:

Parcel P33502: OS F/A AF 201003100026 ORIGINAL PLANT TAX F BEG AT NW COR OF GOV LOT 3 SEC 34-35-2 TH S ON W LI LOT 3 455.91' TH S 87 DEG 01'30" E 1321.01' TO E LI LOT 3 TH SE'LY ON E LI LOT 3 TO SE COR TH N 89 DEG 15' 30" W TO A PT ON N LI LOT 4 SEC 34 872.5' E OF NW COR LOT 4 TH S 1328.4' TO S LI OF SEC TH E ALG N LI SEC 3-34-2 TO NE COR LOT 4 SEC 3 S'LY ON E LI LOT 4 747.5' TH S 89 DEG 15'30" E 586. 575' TH N 1 DEG 00'10" E 742.5' TO N LI SEC 3TH E ALG N LI TO NE COR TH SE'LY FOL E LI LOT 3 TH NW COR LOT 2 SEC 3 TH S ON W LI LOT 2 TO SW LINE OF KASCH RD TH S'ELY ALG SW LN OF RD TO N LN GN R/W TH S'WLY ALG GN R/W TO A PT S 0 DEG 40' W TO A PT ON S LN LOT 1 SEC 4 216.16' E FROM SW COR SD LOT TH N 0 DEG 40' E ALG E LN OF DRG EASE CONV'D BY TEXACO TO SKAGIT CO TO S LN OF PAR DEEDED BY TEXACO TO SKAGIT CO FOR RD TH E'LY & PLL W/ S LN OF LOT 1 40' TH N 0 DEG 40" E ALG E LN OF SD PAR 699.59' TO S LN LOT 1 TH W'LY ALG S LN LOT 1 2 & 3 2245.32' TO NW COR NE1/4 OF SE1/4 OF NW1/4 SEC 4 TH S 333.13' TO C/L OF VAC BAY ST COMPTONS PLAT TH W ALG C/L OF BAY ST TO E LI SW1/4 OF NW1/4 SEC 4 TH N 0 DEG 45' E 22.2' TO A PT 356' N OF S LI NE1/4 OF SW1/4 OF NW1/4 TH N 89 DEG 27' W PARL WITH S LI TO W LI G.N. RLY TH S'LY FOL R/W TO A PT S 89 DEG 31'12" E OF A PT ON W LI SEC 4 1762' S OF NW COR OF SEC 4 TH N 89 DEG 31'12" W TO W LI SEC 4 TH N'LY ALG W LI SEC 4 TO NW COR TH N'LY ON W'LY LI OF GOV LOT 5 & 6 SEC 32 TO PT ON W LI GOV LOT 6 WHICH IS S 68 DEG 40' W FR SW COR G.N. STAT- ION GROUNDS SD SW COR BEING 959.4' S & 100.82' W OF NE COR OF LOT 6 TH N 68 DEG 4' E TO E LI OF G.N. RLY CO R/W TH NW'LY FOL E LINE OF G.N. RLY R/W TO ITS INTER WITH E'LY LI OF SHELL SPUR R/W 50' WIDE TH N'LY FOL E'LY LI SHELL SPUR R/W TO PT 40' S MEAS. AT RIGHT ANGLES FR N LI OF S1/2 GOV LT 7 SEC 32 TH N 89-18-45 E PARL TO SD NLI TAP 20 FT E OF E R/W LI MARCHES PT BURROW'S BAY RD TH ON A CURVE TO THE LEFT WITH A RADIUS OF 17.7 FT TH S TO POB LESS TRS A,B & C MARCH POINT COGEN BINDING SITE PLAN AF#9212140035

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site *(circle one)*: flat, rolling, hilly, steep, slopes, mountainous, other *(describe)*: The Shell PSR site is generally flat to gently rolling.

b. What is the steepest slope on the site *(approximate % slope)*?

The steepest slope on the site is a man-made slope (clean soils pile) with a gradient of 40 percent. However, natural slopes across the site are well below 15 percent gradient. South of 4th Street, the land slopes gently to the southeast at a gradient of 3 to 5 percent. North of 4th Street, the land slopes gently to the east at a 0 to 3 percent gradient. Elevations range from approximately 60-70 feet to sea level.

c. What general types of soils are found on the site *(i.e. clay, sand, gravel, peat, muck)*? If you know the classification of agricultural soils, please specify and note any prime farmland.

According to the Soil Survey of the Skagit County Area Washington (USDA 2013[2]), four dominant soil map units are indicated for the project area: Bow gravelly loam; Coveland gravelly loam; Hydraquents, tidal; and Xerorthents. Bow, Coveland, and Hydraquents, tidal are considered as hydric soils by the Natural Resources Conservation Service (NRCS). Bow gravelly loam and Coveland gravelly loam are considered prime farmland by the NRCS when drained. These soils are not currently cultivated. No prime farmland is located on the Shell PSR site (Ecology 2008[3]).

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe:

There are no surface indications or history of unstable soils in the immediate vicinity of the Shell PSR site.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Approximately 1,100,000 cubic yards of excavation is anticipated for construction of the rail spur extension. Surplus excavated materials would be hauled to an approved location within Skagit County. Approximately 30,000 cubic yards of fill would be needed on the Shell PSR site. Fill would come from on-site.

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[2] Source: Washington State Department of Ecology (Ecology), GIS Technical Services. *Skagit County – Farm Soils (map)*. May 2008.

[3] Source: U.S. Department of Agriculture (USDA), Natural Resources Conservation Service. *Web Soil Survey*. Available at websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed October 2013.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Erosion is unlikely to occur as a result of clearing, construction or use, due to the flat nature of the Shell PSR site. In addition, Best Management Practices (BMPs) such as silt fencing would be used during construction to minimize erosion.

g. About what percent of the site will be covered with impervious surfaces after project construction *(for example, asphalt or buildings)*?

After project completion, there would be approximately 480,000 square feet of impervious surfaces (approximately 22 percent of the site).

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Measures to reduce or control erosion, or other impacts to the earth, would be implemented during the construction process at the site in accordance with the NPDES Construction Stormwater Permit, Ecology's General Stormwater Permit, and the County's Drainage Ordinance (Skagit County Code [SCC] 14.32). BMPs may include:

- Protecting cut slopes during construction, and any soil stockpiled on the site, by placing plastic sheeting on exposed cut slopes;
- Limiting the maximum duration of open excavation to the shortest time possible;
- Stabilizing disturbed soils that are exposed to surface water runoff;
- Implementing in-place temporary construction erosion and sediment control measures prior to any site grading activities, which may include erosion control fencing;
- Re-vegetating any exposed soils that are susceptible to erosion within 30 days; and
- Maintaining any erosion control measures left in place after construction is completed.

2. Air

a. What types of emissions to the air would result from the proposal *(i.e. dust, automobile, odors, industrial wood smoke)* during construction, and when the project is completed? If any, generally describe and give approximate quantities if known.

Construction: During construction, combustion emissions and dust would temporarily be emitted from construction equipment at both sites. Construction equipment to be used includes dump trucks, backhoes, concrete mixers, cranes, and generators. Emissions associated with construction would be short-term and are not anticipated to result in air quality impacts.

Operations: During operations, increased employee traffic would result in increased greenhouse gas (GHG) emissions. The number of employees added as part of this project is anticipated to be approximately 25 new employees; the GHG emissions increases from new commutes are discussed in the next section.

In addition to GHG emissions, this project may increase volatile organic compound (VOC) emissions by 0.9 tons per year. This increase in emissions would result from fugitive equipment leaks from equipment installed as part of the project.

Shell Direct and Indirect GHG emissions: The emissions associated with direct and indirect GHG emissions are discussed in this section. According to the Washington State Department of Ecology's (Ecology's) GHG guidance for SEPA reviews, GHG emissions caused by the project that are above beyond current emission levels need to be considered.[4]

This proposed project would add a new rail spur capable of unloading various crudes such as Bakken crude from railcars. As the Shell PSR refinery is operating near its maximum production capacity, crude brought in by railcar would offset crude currently brought in by oil tankers. Therefore, this project would result in a zero net throughput increase in crude received at Shell PSR.

Approximately 102 rail cars and an estimated four locomotive engines per day would arrive and depart from the Shell facility as part of this project. The locomotives would perform all train switching operations, thus eliminating the need for a dedicated locomotive at the facility.

Ecology's GHG Guidance states that a GHG analysis should include emissions from Scope 1, 2, and 3 emissions, which are listed in Table 1 below.[5] Scope 1 emissions include direct GHG emissions from the onsite activities. Scope 2 and 3 emissions include indirect emissions from electricity/steam usage and transportation of products, respectively.

In order to properly assess the GHG impacts from product transportation, the boundaries of the project must be defined. Ecology's GHG Guidance provides useful context for this determination:[6]

> "*At a minimum, the analysis should include the emissions that occur within Washington state, including the nautical three mile boundary if transporting products by ship. For projects with ongoing operations that include transporting products from outside the state, such as a port, a more thorough and perhaps more defensible analysis would include the transportation emissions from the source location outside of Washington to the final destination if either is known and the extent to which either is known.*"

During construction, heavy machinery would make short and frequent trips around the construction site, resulting in GHG emissions. The GHG emissions calculated for product

[4] Guidance for Ecology Including Greenhouse Gas Emissions in SEPA Reviews, June 3, 2011. Available online via http://www.ecy.wa.gov/climatechange/docs/sepa/20110603_SEPA_GHGinternalguidance.pdf
[5] Ecology's GHG Guidance, Section G, Pg. 5.
[6] Ecology's GHG Guidance, Section F, Pg. 4.

transportation via rail include the emissions from a point of origin (conservatively considered to be North Dakota in these calculations) to the final destination at the Shell PSR.[7] Similarly, the decrease in GHG emissions for the vessel product transportation offset by the increased rail product transportation includes the emissions from its origin in Alaska to Shell PSR.[8] For the purposes of these calculations, the transportation of product includes both the fully loaded inbound trip to PSR as well as the empty outbound trip back to its point of origin. The product transportation GHG emissions via rail and vessels are shown in Table 1.

Table 1. ***SEPA Direct and Indirect Emissions***

Source	GHG Emissions (metric tons CO_2e/yr)
Scope 1 Emissions	
Stationary Combustion Units [a]	--
Vehicle Fleet Emissions [b]	--
Scope 2 Emissions	
Purchased Electricity or Steam [b]	--
Scope 3 Emissions	
Heavy-Machinery Emissions [b]	--
Transportation by Rail	101,363
Transportation by Vessel	-93,114
Vehicle Trips During Operation [b]	--
Total GHG Emissions (Annual)	**8,249**
Temporary Scope 3 Emissions	
Vehicle Trips During Construction	240

[a] There are no sources of stationary combustion GHG emissions proposed as part of this project.
[b] The total GHG emissions from these categories are negligible.

For projects that are expected to have between 10,000 and 25,000 metric tons per year of CO_2e emissions, a qualitative disclosure of the GHG emissions is required. Though the GHG emissions from this project would be below this threshold, those emissions are quantified in this checklist to ensure a thorough analysis of the project's impacts. Per Ecology's GHG Guidance, a project is "*presumed to be not significant for greenhouse gas emissions and thus no further mitigation for greenhouse gas emissions will be necessary*" if the project is expected to result in less than 25,000 metric tons per year of CO_2e.[9] As shown in Table 1, the project is expected to emit below 25,000 metric tons per year of

[7] This project has the capability to bring in various crudes from multiple locations. For the purposes of these calculations, Bakken crude from North Dakota is considered to be a conservatively long distance for the crude to travel to Shell PSR.
[8] The Shell PSR currently has the capability to bring in various crudes via vessel from multiple locations. As the net GHG emissions caused by vessel product transportation is decreasing, crude from Alaska is considered to be a conservatively short distance for the crude to travel to Shell PSR.
[9] Ecology's GHG Guidance, Section J, Pg. 7.

CO_2e; therefore, no significant adverse impacts from the emissions of GHG would be caused by this project.

b. Are there any off-site sources of emissions or odor which may affect your proposal? If so, generally describe.

There are no potential emissions and/or odors from surrounding land uses that would affect the proposal.

c. What are the proposed measures to reduce or control emissions or other impacts, if any:

Construction: The following measures are proposed during construction to reduce or control emissions:

- Wet exposed soils to minimize dust;
- Cover stockpiled materials;
- Wash truck and equipment wheels before leaving the sites to reduce track-out; and
- Sweep roadway when track-out accumulates.

Operations: The rail cars will employ a vacuum breaker system designed to prevent VOC from being vented to the atmosphere during the unloading process. The operation will also be covered under Shell's leak detection and repair program that will monitor and minimize fugitive equipment leaks.

3. Water

a. Surface:

1) Is there any surface water on or in the immediate vicinity of the site *(including year-round and seasonal stream, saltwater, lakes, ponds, associated wetlands)*? If yes, describe type, provide names, and, if known, state what stream or river it flows into.

There is one seasonal stream on the Shell PSR site which flows through tidal salt marsh as it drains to Padilla Bay (Puget Sound). There are twelve ditches which have seasonal continuous flow on-site, which eventually drain to Padilla Bay. Twenty-one wetlands have been delineated on or next to the project area, totaling approximately 70 acres. Most of these wetlands are either Category III or IV pasture wetlands that are actively grazed; there are three Category II wetlands. Approximately 25.3 acres would be permanently impacted on the Shell PSR Site (see 3.a (2) below for more details). Refer to the attached *Wetland Delineation and Critical Areas Assessment Report* for additional information.

2) Will the project require any work over or adjacent to *(within 200 feet)* the described waters? If yes, please describe and attach available plans.

Work to be done within 200 feet of the above-described Padilla Bay, streams, ditches, and wetlands, includes construction/installation of portions of the rail spur, grading,

and fill. The project would require 21.41 acres of direct permanent wetland impact (from excavation and fill), 3.88 acres of indirect permanent wetland impact, 0.24 acre of long-term temporary wetland impact, and 0.41 acre of conversion from forested wetland to herbaceous wetland. See the site plan, attached as Figure 2.
The project has been designed to avoid and minimize wetland and environmental impacts to the maximum extent feasible. Associated facilities are located in upland areas where possible. Due to the predominance of wetlands in the project vicinity, permanent wetland impacts would be unavoidable. However, most of the high-quality wetlands would be avoided. Most work would be done in low-quality, grazed pasture wetlands.

3) **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

   Approximately 8,444 cubic yards of fill would be placed in wetlands on the Shell PSR site. Source of fill would likely come from on-site depending on the end use of the fill. Approximately 236,281 cubic yards would be excavated from wetlands on the Shell PSR site. Surplus excavated materials would be hauled to an approved location within Skagit County.

4) **Will surface water withdrawals or diversions be required by the proposal? Give general description, purpose, and approximate quantities if known.**

   No surface water withdrawals are necessary for the project. Several drainages (ditches and one seasonal stream) would be diverted during construction. The stream would be directed back to its present surface flows through a culvert under the rail spur. Many of the other ditch drainages would be re-routed to stormwater basins.

5) **Does the proposal lie within a 100-year flood plain? Note location on the site plan, if any.**

   A small portion of the rail alignment on the BNSF mainline, at the southeast corner of the project area, lies within the 100-year floodplain (see Figure 2).

6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

   The proposal would not involve discharges of waste materials to surface waters. The project would be designed to capture and/or control all potential wastes or spills and preclude such materials from reaching surface waters.

b. Ground:

1) Will ground water be withdrawn or recharged? Give general description, purpose, and approximate quantities if known.

Groundwater would not be withdrawn or recharged for this project.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any *(for example: domestic sewage; industrial, containing the following chemicals …; agricultural; etc.)*. Describe the general size of the system, the number of such systems, the number of houses to be served *(if applicable)*, or the number of animals or humans the system(s) are expected to serve.

The proposal would not involve discharges of waste materials to ground waters.

c. Water runoff *(including storm water)*:

1) Describe the source of runoff and storm water and method of collection and disposal, if any *(including quantities, if known)*. Where will this water flow? Will this water flow into other waters? If so, please describe.

Sources of runoff include stormwater and a permitted NPDES outfall to on-site ditches. These ditches would be routed to new stormwater basins built for this project.

2) Could waste materials enter ground or surface waters? If so, generally describe.

The project would be designed to capture and/or control all potential wastes or spills and preclude such materials from reaching ground or surface waters. A liner would be installed underneath the entire unloading area as well as under the stormwater ponds. The unloading area would be sloped to the center from each end to aid in preventing tank cars from rolling backward to the mainline and to contain potential spills. The facilities would also contain a compressor to supply air to the tank cars in the unloading area to ensure the brake system is energized in the brake position. In addition, the new rail facility would also be located adjacent to existing facilities which would allow for conveyance of oily wastewater to the refinery's on-site wastewater treatment facility. In the event of a major tank car spill, a suck truck would be used to drain the oil/water separator.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

Waters in on-site ditches will continue to be tested regularly. The stream on the Shell PSR site just north of the BNSF mainline will be fenced to prevent cattle from impacting it further. An erosion and sediment control plan would be prepared for the project.

a. Check or circle types of vegetation found on the site:

✓ deciduous tree: alder, cottonwood, birch, maple, aspen
✓ evergreen tree: red cedar, fir
✓ shrubs: salmonberry, blackberry, snowberry, crabapple, huckleberry, oceanspray, gooseberry, others
✓ grass
✓ pasture
__ crop or grain
✓ wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
__ water plants: water lily, eelgrass, milfoil, other
✓ other types of vegetation: bracken fern

b. What kind and amount of vegetation will be removed or altered?

It is anticipated that the varieties of vegetation shown in 4.a., above, would be removed on the Shell PSR site. Approximately 16.5 acres of forested or shrub and 33.5 acres of pasture or disturbed areas would be removed for the project.

c. List threatened or endangered species known to be on or near the site.

No threatened or endangered plant species are known to be on the site.

d. List proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Landscaping is not proposed; nor is it required per Skagit County or the City of Anacortes. However, some plants will be installed adjacent to the stream and salt marsh at the southern end of the rail alignment. A portion of the stream between the proposed rail and a forested patch has been impacted by cattle and will be fenced and planted as part of the project. A portion of the salt marsh in the southeast corner of the refinery property has been adversely impacted by cattle grazing. A 200-foot buffer from the marsh will be fenced off and planted to native trees and shrubs.

The existing dirt pile would be excavated, graded, and hydroseeded.

5. Animals

a. Circle any birds and animals which have been observed on or known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other:_____
mammals: deer, bear, elk, beaver, other: _____
fish: bass, salmon, trout, shellfish, other:_____

b. List any threatened or endangered species known to be on or near the site:

There are no threatened or endangered species known to be on the site.

The following threatened or endangered species are known to occur in nearby Padilla Bay: Chinook salmon, Puget Sound steelhead, Steller sea lion, southern resident killer whale, southern distinct population segment (DPS) of North American green sturgeon, southern DPS of eulachon, Bocaccio rockfish, Canary rockfish, yellow rockfish, bull trout, and marbled murrelet.

Three bald eagle (state threatened) nests are located on the site. Two nests would be considered "active" since they are in good condition. The third nest is in very poor condition and is sliding out of its tree; it also appears to be abandoned. If any nests require removal, an Eagle Disturbance Take permit would be acquired from U.S. Fish and Wildlife Service. In addition, tree removal would occur outside of nesting season.

c. Is the site part of a migration route? If so, explain.

The Shell PSR site is located within the Pacific Flyway, which is a flight corridor for waterfowl and other avian fauna migration. The Pacific Flyway extends from Alaska south to Mexico and South America. The project would not affect use of the Pacific Flyway by migratory birds.

d. Proposed measures to preserve or enhance wildlife, if any:

Fencing off approximately 8-acres adjacent to the stream and salt marsh from cattle grazing and planting native species would improve water quality and fish habitat downstream of the Shell PSR site.

Due to the amount of necessary wetland fill at the Shell PSR site, Shell would purchase credits at a Skagit County wetland mitigation bank (either the Nookachamps Wetland Mitigation Bank, the Skagit Environmental Bank, or a combination of the two). Both of these banks provide enhancement and restoration that would also help to enhance or create wildlife habitat.

6. Energy and Natural Resources

a. What kinds of energy *(electric, natural gas, oil, wood stove, solar)* will be used to meet the completed project's needs? Describe whether it will be used for heating, manufacturing, etc.

Electricity would be used at the site to run the crude by rail unloading facility, including pumps, rail switches, air compressor, and lighting. Instrument air may be used. An Uninterruptible Power Supply (UPS) would be provided for any critical loads such as emergency lighting, security cameras, and programmable logic controllers (PLC).

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The project would not affect the potential use of solar energy by adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal?

Electrical pumps would only be operational when a unit is being unloaded. All pumps, motors, electrical equipment, and process technology equipment would include energy efficient motors.

d. What are the proposed measures to reduce or control energy impacts, if any?

None required.

7. Environmental Health

a. Are there any environmental health hazards, exposure to toxic chemicals, including risk of fire and explosion, spill, or hazardous waste, that occur as a result of this proposal? If so, describe.

Conceptual design of the Shell PSR site takes into consideration the possibility of having a major spill from one tank car, or approximately 31,000 gallons. The facility would have spill containment for this event that contains and limits the spill to the facility itself. The contained material would then be transported by pump to the effluent plant within the refinery for handling.

BNSF maintains its own spill response plans and programs for spills that could occur on their right-of-way, outside of the refinery.

b. Describe special emergency services that might be required.

No special or new emergency services would be required. Trained refinery personnel would be able to respond to emergencies on site. Shell would continue to coordinate with local emergency responders.

c. What are the proposed measures to reduce or control environmental health hazards, if any?

Shell PSR proposes to modify its existing Spill Prevention, Control, and Countermeasure Plan (SPCC) to include the new rail facility at the Shell PSR site.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The site is in use as the Shell PSR, which contains heavy industrial uses. The rail facility is located at the eastern section of the refinery in an area that contains wetlands. A major portion of the wetlands is used as pasture land by an adjacent landowner. Two pipelines (Kinder Morgan and Olympic) and existing PSE power lines presently run through the property. Surrounding uses include the refinery, grazed pasture, undeveloped forest, and East March Point Road.

b. Has the site been used for agricultural purposes? If so, describe.

This site has been owned by the refinery since 1958. The majority of the project area is used for pasture.

c. Describe any structures on the site.

The project area contains pipelines, a parking/laydown area, railroad (mainline and spur), roads (both paved and gravel), and fences. The greater refinery site contains several structures including pipes, tanks, process equipment, a rail spur, parking, and buildings.

d. Will any structures be demolished? If so, what.

No structures would be demolished on the Shell PSR site. The existing pipelines and power lines would be relocated on-site. In addition, some fences would be moved.

e. What is the current zoning classification of the site?

Skagit County classifies this site as A-UD Anacortes UGA Urban Development District. The City of Anacortes classifies this site as HM Heavy Manufacturing.

f. What is the current comprehensive plan designation of the site?

The PSR site is within Skagit County but within the Anacortes Urban Growth Area (UGA). Skagit County designates this site as A-UD Anacortes UGA Urban Development District. The City of Anacortes designates this site as HM Heavy Manufacturing.

g. If applicable, what is the current shoreline master program environment designation of the site?

The current environmental designation of the site per Skagit County's Shoreline Master Program (SMP) is Rural. Transportation facilities are permitted per Skagit County's SMP. A shoreline variance is required for the Shell PSR site as the proposed rail alignment would be within 200 feet of the shoreline. In addition, the site will require a

Shoreline Substantial Development Permit for development within 200 feet of the shoreline.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

The following critical areas have been identified on the Shell PSR site:

- Wetlands
- Category I aquifer recharge area: Potential Seawater Intrusion Area
- Frequently Flooded Area

i. What are proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Per Skagit County Code 14.16.220, uses are allowed within Urban Growth Areas provided they are also consistent with the standards for the zone that has been identified for the target property by the city. Per Anacortes Municipal Code Chapter 17.15, the March Point heavy manufacturing district (HM) is intended primarily for heavy manufacturing and closely related uses. Permitted uses in the HM zone include industrial, processing, and shipping terminal uses, provided such uses do not inflict nuisances or hazards onto neighboring districts. Therefore, the proposed rail facility is considered a permitted use and would be consistent with the HM district.

j. Approximately how many people would reside or work in the completed project?

The completed project would require approximately 25 new workers. About 8-10 personnel would be on the site at any one time during operations. No people would reside on the site after project completion.

k. Approximately how many people would the completed project displace?

No people would be displaced by the project.

l. What are proposed measures to avoid or reduce displacement or other impacts, if any?

None required.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

No housing units would be provided.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

No housing units would be eliminated.

c. What are proposed measures to reduce or control housing impacts, if any?

None required.

10. Noise

a. What types of noise exist in the area which may affect your project *(for example: traffic, equipment, operation, other)*?

The project is located within an active industrial area. Existing noise sources (vehicular; air; rail and water traffic; surrounding operations) would not affect the project.

b. What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis *(for example: traffic, construction, operation, other)*?

Construction: In the short-term, noise would be created by construction activities. Construction equipment to be used includes dump trucks, backhoes, concrete mixers, cranes, and generators. Per Skagit County Code 9.50 and WAC 173-60, construction-related sounds from temporary construction sites are exempt from noise level standards between the hours of 7:00 a.m. and 10:00 p.m. Construction activities on the Shell PSR site would mostly occur during daylight hours; however, there may be a need to work outside these hours due to schedule or time constraints. A majority of all noises from construction would be limited to the Shell property.

Operation: Handling, switching and operation of the crude oil railcars would occur on site on Shell property daily on a long-term basis. A unit train per day is anticipated (approximately six per week) and would arrive anytime between the hours of 2:00 a.m. and 4:00 p.m. Operations would likely be performed both day and night. The present plan is to handle and unload a unit during a 12-hour window then test, re-assemble, and stage for pick-up by BNSF when they deliver a new full unit train. At this time it is anticipated that the facility is staffed 24 hours a day. This could change to being less once operational routines are established. Noise levels during operations are not expected to be any greater than existing levels although the new train unloading facility would be located on the eastern side of the refinery, whereas the current rail facility is located on the west site of the refinery.

c. What are the proposed measures to reduce or control noise impacts, if any?

Shell will adhere to Skagit County Code 9.50 and WAC 173-60 noise level standards during construction. Long-term noise impacts are not anticipated; therefore, mitigation measures for operations are not proposed.

11. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The largest structure would be a new overhead platform that would run the length of the unloading area and would be approximately 20 feet high. The platform would be made primarily of metal. Small buildings associated with operations and electrical are proposed.

b. What views in the immediate vicinity would be altered or obstructed?

The site is located within an industrially zoned area. The proposed project is not expected to alter views in the immediate vicinity.

c. What are the proposed measures to reduce or control aesthetic impacts, if any?

None required.

12. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Construction would require temporary lighting including equipment lights and portable lighting structures during the fall and winter, when daylight is shorter. New lighting associated with the rail facility would be installed as needed for worker safety and operations.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Light or glare from the finished project would not be a safety hazard or interfere with views.

c. What existing off-site sources of light or glare may affect your proposal?

Off-site sources of light or glare would not affect this proposal.

d. What are the proposed measures to reduce or control light and glare impacts, if any:

During construction and operation, lighting would be downward directed into the site, to the extent possible, to minimize effects. Platform lighting may be directional but would result in minimal light intrusion to adjacent industrial properties.

13. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are no designated recreational areas in the immediate vicinity of the Shell PSR site. Informal boating recreation occurs in adjacent Padilla Bay.

b. Would the proposed project displace any existing recreational uses? If so, describe.

The project would not displace any existing recreational uses.

c. What are the proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any?

None required.

14. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

A cultural resources survey dated 5/6/2013 was conducted for this project by URS Corporation. A copy of this report is on file at the DAHP. No archaeological sites or historic structures were identified in the initial project area. The project area was subsequently expanded based on design considerations and included a portion of the BNSF rail right-of-way. A cultural resources survey dated 11/4/2013 was conducted for this expanded project area by URS.

The study identified two previously unrecorded archaeological sites and one historic rail line segment within the project area and two archaeological sites next to the project area that would not be directly affected or altered by the proposed project (see 14.b, below). A copy of this report will be distributed to the affected Tribes and DAHP for review

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on the site.

The study identified two historic archaeological debris scatter sites and a segment of the Seattle and Northern/Seattle and Montana/Great Northern Anacortes to Rockport rail line within the project area. URS recommended these historic resources are not significant and not eligible for listing in the National Register of Historic Places. A Determination of Eligibility will be sent to DAHP for review.

Two archaeological sites occur next to the project area. The project was re-routed to avoid the sites, and they would not be directly affected or altered by the proposed project.

c. What are the proposed measures to reduce or control impacts, if any?

A copy of this survey report will be distributed to the affected Tribes and DAHP for review. URS will prepare and implement an Archaeological Resources Monitoring Plan and Inadvertent Discovery Plan (ARMP/IDP) for the project, and a professional archaeologist will be present for the duration of major ground-disturbing activities.

15. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

The property is accessed from SR-20 via South March Point Road and is generally bounded by East March Point Road and North Texas Road. Private roads internal to the Shell PSR would also provide access (see Figure 2).

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The site is not currently served by public transit. The nearest transit stop is at the Skagit Transit-operated March's Point Park-and-Ride, which is approximately 0.7 mile west of the site on leased Shell property. This park-and-ride is served by Skagit Transit Routes 410, 615, and 513; and Island Transit Route 411.

c. How many parking spaces would the completed project have? How many would the project eliminate?

After project completion, approximately 24 new parking spaces would be provided. The completed project would require approximately 25 new workers. About 8-10 personnel would be on-site at any one time during operations. The completed project would not eliminate any existing parking spaces.

d. Will the proposal require any new roads or streets, or improvements to any existing roads or streets, not including driveways? If so, generally describe *(indicate whether public or private)*

Improvements and partial extensions of existing private roads internal to the Shell PSR site are proposed (see Figure 2). Roads would be added and or modified for efficient ingress/egress of operating personnel, efficient access for refinery emergency response personnel and equipment and for safe and efficient access for outside emergency equipment and personnel such as the local fire department. Some improvements to the BNSF right-of-way would also be made.

e. Will the project use or occur in the immediate vicinity of water, rail, or air transportation? If so, generally describe.

The project would occur in the immediate vicinity of water and rail transportation. The project would use rail via the BNSF mainline to transport crude to the new facility for processing and distribution.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

If existing plant personnel are used for the work, no new trips per day would be generated by employees. If the project requires hiring 25 new employees, approximately 50 vehicular trips per day (or approximately 25 round trips per day) would be generated by new employees at the completed project. These would typically occur during shift changes, the timing of which is unknown at this time.

Two rail trips (one incoming and one outgoing unit train, each containing approximately 102 oil tank rail cars) per day are anticipated, approximately six days per week. This would result in approximately 626 train trips (312 incoming and 312 outgoing) annually to and from the area. Added to Shell's current three trains per week for incoming coking product, the overall train traffic to and from the Shell PSR site on a weekly basis would be approximately nine incoming and nine outgoing trains per week.

Potential delays for emergency vehicles have been taken into consideration in the design of the proposed rail facility. There are five means of egress into the site. This allows for quick access to the facility while there is a train on the track being delivered or waiting to be taken. Access is designed for personnel from within the refinery and also from local outside agencies to respond to any type of emergency that may be needed.

g. What are proposed measures to reduce or control transportation impacts, if any?

The rail project has been designed to avoid blocking East March Point Road, at the BNSF mainline crossing, during unloading by providing adequate rail track to move the train onto the Shell PSR site, beyond March Point Road. Power switches may be installed at the BNSF mainline that would eliminate the need for trains to stop and manually switch themselves into the facility.

16. Public Services

a. Would the project result in an increased need for public services *(for example: fire protection, police protection, health care, schools, other)*? If so, generally describe.

An increased need for public services at the Shell PSR site would not occur as a result of the project. Existing fire and emergency services provided by Shell for the refinery would serve the rail facility.

b. What are proposed measures to reduce or control direct impacts on public services, if any?

None proposed.

17. Utilities

a. Circle "()" utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other *(describe)*.

b. Describe the utilities which are proposed for the project, the utility providing the service, and the general construction activities of the site or in the immediate vicinity which might be needed.

Electricity, water, refuse service, telephone, and sanitary sewer are proposed for the project. Most utilities on this site are provided by the City of Anacortes. Except for the main electrical power, where a new substation would be installed, all utilities would be installed at this site to make it fully functional as is within the refinery. All of these utilities would be connected into the existing refinery utility systems. Some pipelines and PSE power lines would be relocated. The existing locations of these pipelines and powerlines conflict with the location of the new rail and unloading facilities. Because of the limited space on the Shell property to align a new rail system and unloading facility, conflicts with the pipeline and power system are unavoidable.

C. SIGNATURE

The above answers are true to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Thomas J. Ryan

Date Submitted: 12/12/13

33764101_16.ai

Source: Google Earth Pro

0 2,000 4,000

Scale in Feet

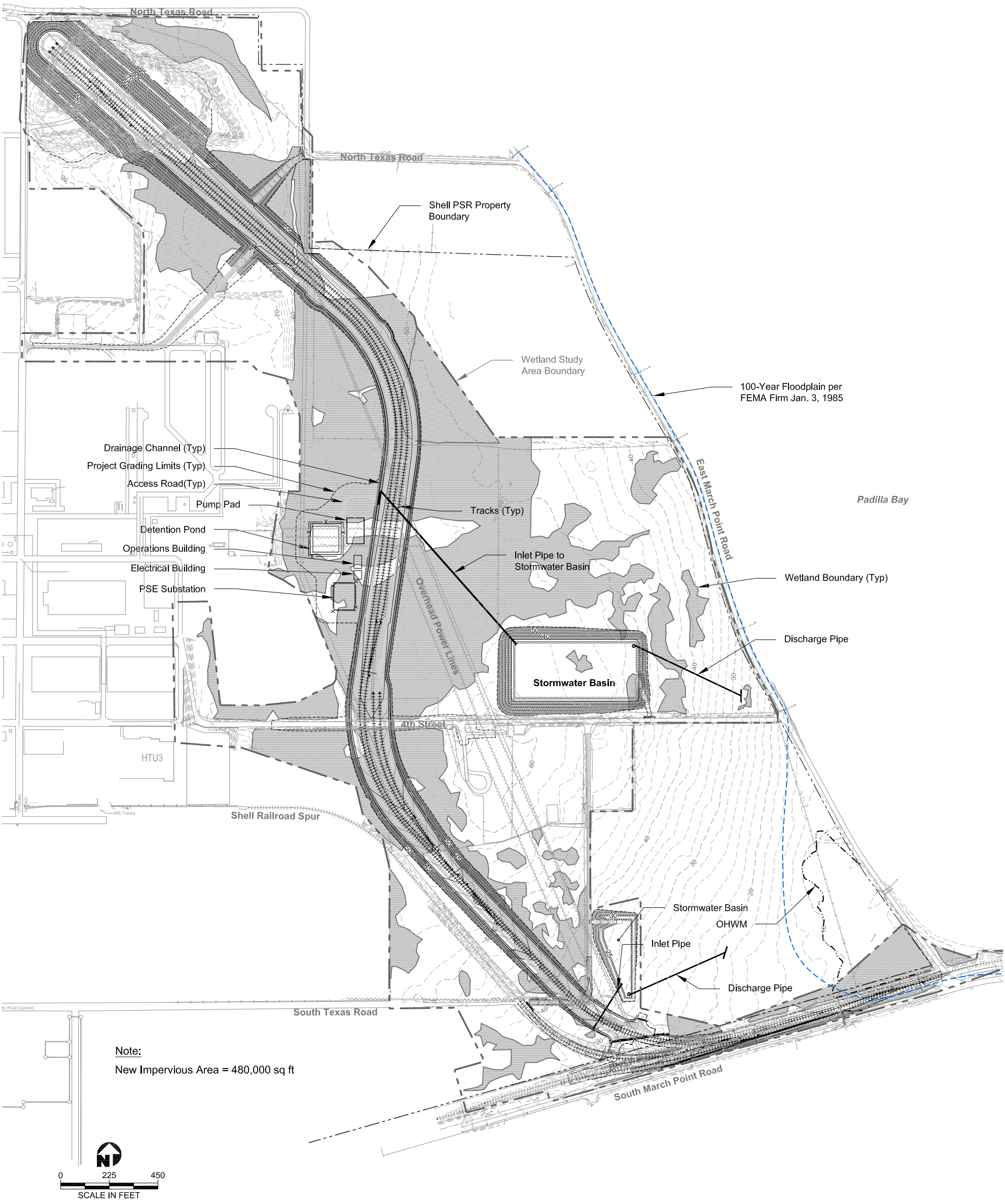
Figure 1

Project Site Location

Job No. 33764101

URS

Crude by Rail East Gate
Shell Puget Sound Refinery



J:\GIS\Projects\SHELL\Puget Sound Refinery\SubTasks\Crude Rail\Permitting\SEPA-Floodplain-Shoreline\Figure 2 (Rail Site SEPA-Floodplain).dwg
Mod: 12/11/2013, 14:11 | Plotted: 12/11/2013, 14:13 | john_knobbs

URS

Assessors Tax Account #: 350234-0-010-0005
Property ID #: P33502
Project Address: Shell Puget Sound Refinery, 8505 S Texas Rd, Anacortes, WA 98221

Figure 2
Site Plan - Shell PSR

SEPA
Crude by Rail East Gate
Shell Puget Sound Refinery