



Skagit County (County) and the Washington State Department of Ecology (Ecology), co-lead agencies, are overseeing the preparation of this environmental impact statement (EIS) under the Washington State Environmental Policy Act (SEPA) for a project proposed at the Shell Puget Sound Refinery (PSR). The applicant, Equilon Enterprises, LLC (Shell), proposes to construct and operate a rail unloading facility at the Shell PSR located near Anacortes, Washington.

This summary provides an overview of the proposed project and the environmental review process, presents the key findings of the draft EIS, and describes next steps.

INTRODUCTION AND BACKGROUND

The Shell Puget Sound Refinery (PSR) is located on the March Point peninsula near Anacortes, Washington, in unincorporated Skagit County. The peninsula is bordered by Fidalgo Bay to the west and Padilla Bay to the east. Other industrial facilities, including the neighboring Tesoro Anacortes Refinery, are also located on March Point. The Shell PSR was initially owned by Texaco and began operating in 1958. At that time, the refinery processed 45,000 barrels of crude oil per day. In 2016, the Shell PSR processes as much as 145,000 barrels (5.7 million gallons) per day. The facility receives some of its crude oil from Canada via pipeline; however, most of its supplies are delivered via marine vessel from oilfields in the Alaska North Slope region.

In recent years, North Slope oil production has been in decline. To maintain existing refining operations, Shell began to investigate other sources of crude oil that would meet two primary needs: 1) crude oil sources must be refinable at the Shell PSR by using existing technology and equipment, and 2) those sources must be cost effective to transport and process. Shell determined that the most viable source of crude oil would come from the mid-continent area, also known as the Bakken region of Montana and North Dakota. The only economical means of transporting that source of crude oil would be by rail.

As the applicant, Shell proposes to construct and operate a rail unloading facility at the Shell PSR. The proposed project, known as the Shell Anacortes Rail Unloading Facility, includes building a rail spur from the existing adjacent BNSF Railway Anacortes Subdivision onto the Shell PSR property to accommodate the unloading of trains transporting crude oil from the mid-continent area.

Shell has been working with Skagit County and other agencies to develop the proposed project since 2012. In February 2015, the Skagit County Hearing Examiner ordered the County to complete an EIS (Skagit County Hearing Examiner 2015). The County requested that Ecology participate as a SEPA co-lead agency, and Ecology formally agreed to do so in June 2015. On September 21, 2015, the County and Ecology released a determination of significance (DS) for the Shell Anacortes Rail Unloading Facility (Skagit County and Ecology 2015a), initiating the EIS process, which is described below.

ENVIRONMENTAL REVIEW PROCESS

The co-lead agencies are jointly overseeing the preparation of this EIS in accordance with SEPA. According to SEPA, an EIS must be prepared when the lead agency determines a proposal is likely to result in significant adverse environmental impacts. The SEPA environmental review process includes the following steps:

EIS Scoping Process

The first step in the development of an EIS is called scoping. During the scoping process, agencies, tribes, local communities, organizations, and the public are invited to comment on factors that should be analyzed and considered in the EIS. Specifically, the process is intended to collect input on a reasonable range of alternatives; potentially affected resources and extent of analysis to determine impacts; measures to avoid, minimize, and mitigate impacts of the proposal; and cumulative impacts. Scoping for the proposed project occurred between September 21 and November 5, 2015. The scoping process was documented in the Shell Anacortes Rail Unloading Facility Environmental Impact Statement Scoping Report (Skagit County and Ecology 2015b).

Draft EIS Preparation, Publication, and Review

A draft EIS is then prepared using the results of the scoping process. The purpose of an EIS is to provide an impartial discussion of significant environmental impacts and reasonable alternatives and mitigation measures that avoid or minimize adverse environmental impacts. The information in this draft EIS is provided for review and comment by interested parties and will also be used by the co-lead agencies to evaluate the proposed project.

Public, Agency, and Tribal Involvement

As described above, the co-lead agencies solicited feedback from the public, agencies, and tribes during the EIS scoping process, and will do so again during a 60-day comment period from October 4 to December 2, 2016. During the comment period, public hearings will be held on November 12, 2016 (Anacortes), November 16, 2016 (Mount Vernon), and November 19, 2016 (Seattle). Comments will also be accepted by means of a post office box, in person at Skagit County, an online open house, e-mail, and voicemail.



Final EIS Publication

Following the comment period, the co-lead agencies will issue the final EIS. The final EIS will address comments received during the comment period, and may include additional information and input received from Shell, the co-lead agencies, other agencies with jurisdiction or concern, tribes, and the public regarding the proposed project.

Federal, State, and Local Permits and Approvals

After completion of the EIS, Shell will need to obtain permits and authorizations to construct and operate the proposed project. Agencies can use the EIS when making decisions about project **permitting, in addition to information submitted with each permit's application**. See Chapter 1 – Introduction, of this EIS for additional details about the environmental review process.

OBJECTIVE OF THE PROPOSED PROJECT

The objective of the proposed Shell Anacortes Rail Unloading Facility is to provide the capability to receive crude oil by rail from the mid-continent area so the Shell PSR can maintain operations at its current level. This proposed source of crude oil is expected to replace and supplement the **Shell PSR's declining Alaska North Slope supply. It must be refinable with the facility's existing technology and equipment and sustain the Shell PSR's economic viability.**

ALTERNATIVES CONSIDERED

SEPA requires lead agencies to evaluate reasonable alternatives to the proposed project. Alternatives considered included on-site alternatives, off-site alternatives, alternatives suggested by commenters during the scoping process, and alternative methods of transporting crude oil to the Shell PSR (e.g., marine vessel, pipeline, or truck). Each potential project alternative was analyzed to determine if it would meet the proposal's **objective** at a lower environmental cost or decreased level of environmental degradation. Alternatives that failed to meet these criteria were eliminated from further study. See Chapter 2 – Proposed Project and Alternatives, of this EIS for additional information about the alternatives considered.

No Action Alternative

SEPA requires evaluation of a no action alternative as a benchmark from which other alternatives can be compared (WAC 197-11-440(5); Ecology 2004). Under the no action alternative, none of the proposed facilities would be constructed. The existing Shell PSR would continue to operate similarly as it does today; however, Shell would need to find another source **of crude oil to maintain the refinery's existing production.**



Proposed Project

Shell proposes to construct and operate a rail unloading facility at the Shell PSR. The proposed project includes building a rail spur from the existing adjacent BNSF Railway Anacortes Subdivision onto the Shell PSR property to accommodate unit trains of 102 tank cars transporting crude oil from the mid-continent area. The proposed project would not result in a change in the refining capacity of the Shell PSR.

BNSF Railway transports the majority of bulk crude oil out of the Bakken region. Figure ES-1 shows the anticipated route BNSF Railway would use for trains traveling to and from the Shell PSR.



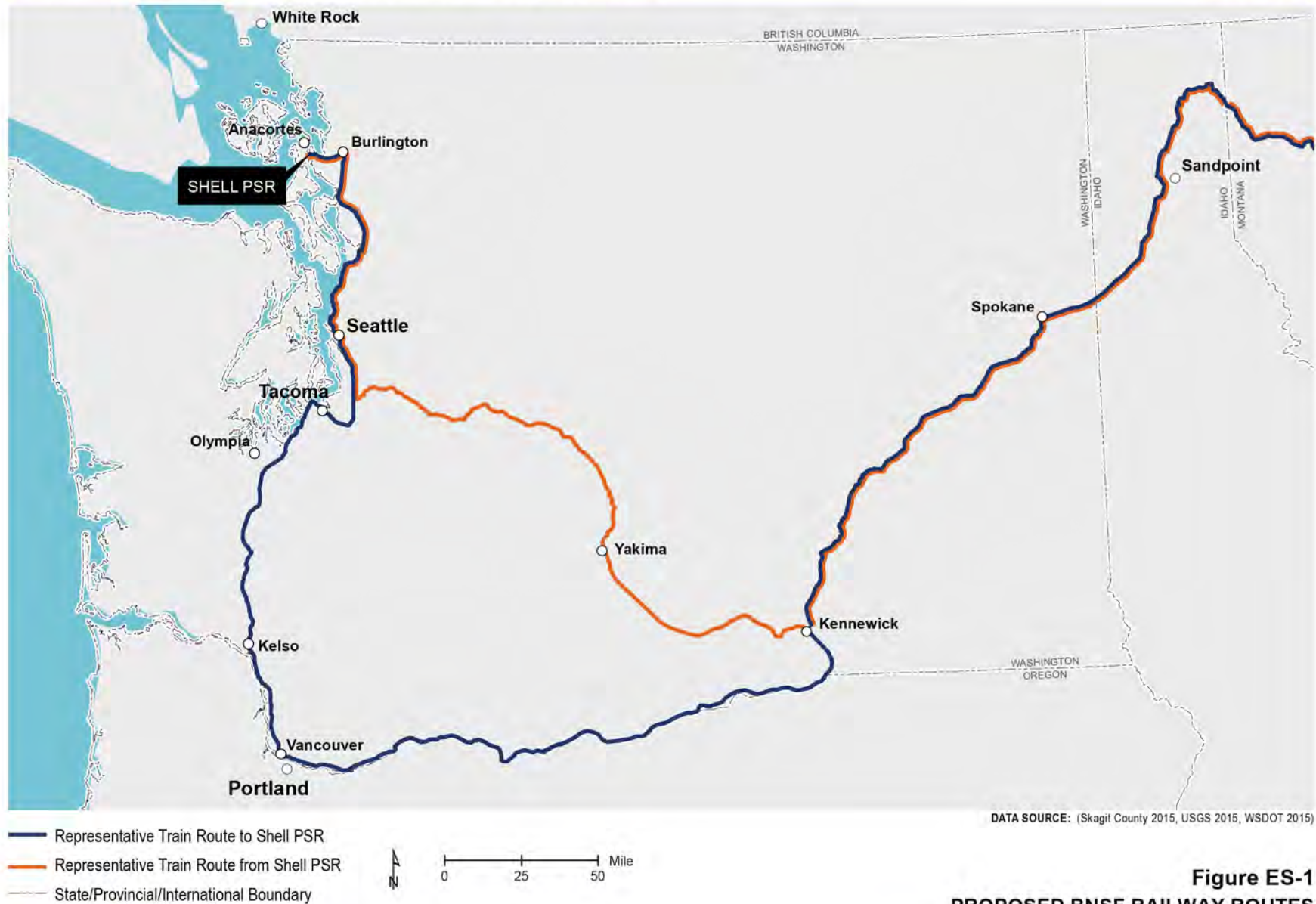


Figure ES-1
PROPOSED BNSF RAILWAY ROUTES
THROUGH WASHINGTON STATE



Each unit train arriving at the rail unloading facility would carry approximately 60,000 to 70,000 barrels of crude oil. The facility would receive six unit trains per week, with each train carrying up to 102 tank cars. The facility has been designed to receive 360,000 to 420,000 barrels of crude oil by rail per week. This volume is equivalent to six trains per week and the maximum volume of crude that can be unloaded at the facility.

Shell would use DOT-117 Specification tank cars that meet enhanced safety standards issued by the Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Railroad Administration (FRA). A single DOT-117 tank car is expected to hold approximately 600-700 barrels of crude oil and has a maximum gross rail load of 286,000 pounds.

The proposed project site includes approximately 47.1 acres, of which 45.8 acres are on the Shell PSR property, and 1.3 acres are on adjacent BNSF Railway right of way. There would be an additional 25.7 acres of temporary impacts on the Shell PSR property. Figure ES-2 shows the location of the proposed project. The proposed project site is situated east of the refinery, west of **East March's Point Road, south of North Texas Road, and north of South March's Point Road.**



Figure ES-2 Proposed Project Location



In addition to building the rail spur, the project would include installing equipment and facilities to pump oil from rail cars to existing tanks within the refinery, constructing stormwater detention ponds, and installing safety and spill response measures. Figure ES-3 presents a graphic representation of the key features of the proposed project.

Figure ES-3 Key Features of the Proposed Project



Shell proposes mitigation for on-site wetland impacts by restoring a portion of a nearby diked and now defunct tree farm on Padilla Bay. The activities necessary to implement this wetland mitigation are included as part of the proposed project. The wetland mitigation site is approximately 2 miles east of the project location at the south end of Padilla Bay. The mitigation site is 100 acres, of which approximately 73 acres would be restored to tidal estuary. Some of the remaining 27 acres would be used for a setback dike, pump station, and stormwater drainage features.

SIGNIFICANT AREAS OF CONCERN

The Skagit County Hearing Examiner identified issues that should be addressed in the EIS (Skagit County Hearing Examiner 2015). In addition, during the EIS scoping process, the co-lead agencies received more than 35,000 comments from the public, governmental agencies, and other interested stakeholders pertaining to the proposed project about a wide range of issues. The following is a list of many of the concerns brought to the attention of the co-leads:

- Determine the potential impacts to the environment associated with an accident during transport of crude oil by rail from the mid-continent area.
- Evaluate how derailments could lead to oil spills, fires, and explosions, which could have large impacts on the local environment, public health, and the economy.
- Identify rail transportation impacts along the delivery and return route corridors, including bridge safety.
- Consider the short-term, long-term, and cumulative impacts of oil spills on sensitive marine habitats and wildlife resources found within the project area, including bald eagles, great blue herons, commercial shellfish and fishing.
- Determine the proposed **project's potential for contributing** additional greenhouse gas (GHG) emissions at the facility and from rail transport.
- Address climate change and the impacts of contributing GHG sources or actions.
- Identify emergency response capabilities, including response to incidents involving crude oil transported along the rail route within Washington State.
- Analyze potentially impacted environmental justice communities, including minority, low-income, and Native American populations; and,
- Evaluate construction-related impacts from the excavation, hauling, and disposal of over 1 million cubic yards of soil.

Based on the comments, and through additional agency coordination during development of the draft EIS, the co-leads determined the environmental issues that would be studied in this analysis.

Scoping comments were received addressing all SEPA elements of the environment resulting in an EIS that covers direct, indirect, and cumulative impacts, where applicable, for each topic. See Chapter 3 – Affected Environment and Environmental Impacts, which provides analyses of



potential impacts of the proposed project on many environmental resources. See Chapter 4 – Environmental Health and Risk, which addresses the significant area of concern related to the probability of a spill and associated potential impacts to the environment.

SUMMARY OF ENVIRONMENTAL IMPACTS AND PROPOSED MITIGATION MEASURES

The major conclusions of this draft EIS are summarized in the discussion of potential environmental impacts of the proposed project provided below. These impacts are described in detail in Chapters 3 and 4 of this EIS. The potential impacts of the proposed project would be mitigated through implementation of a range of measures described in Chapter 5 – Summary of Impacts and Mitigation. Table ES-1 provides a summary of the mitigation measures proposed to address the potential environmental impacts of the proposed project. The discussion and table also indicate whether the proposed mitigation measures are anticipated to be effective in mitigating potential adverse impacts, or whether significant unavoidable adverse environmental impacts would remain.

In addition to the mitigation measures presented in Table ES-1, many other measures have been included as part of the proposed project, or would be applied as part of permit conditions, that would avoid or minimize potential impacts. These avoidance and minimization measures, and the proposed mitigation measures summarized in the table below, are described in detail in Chapter 5 – Summary of Impacts and Mitigation, of this EIS.

Chapter 3.1 – Earth Resources

Potential Impacts

Construction activities would alter topography, soils and, in some locations, the underlying sedimentary materials at the proposed project and mitigation sites. Substantial amounts of soil would be moved to and from the proposed project and mitigation sites (see Chapter 2 – Proposed Project and Alternatives, for additional detail). Potential construction-related impacts include erosion, loss of topsoil, soil compaction, soil mixing, revegetation, and changes to groundwater hydrology. Removal of large soil volumes would indirectly affect the soil's capacity to support native vegetation or future agricultural uses.

Operation and maintenance of the proposed project would not require additional excavation or disturbance of ground surfaces and no direct or indirect impacts are anticipated. Geologic hazards would be present during construction and operation activities and include seismic hazards, ground motion/shaking, soil liquefaction, tsunamis and seiches, volcanic activity, and landslides.

Cumulative Impacts

Within the study area, there has been significant agricultural, industrial, commercial, and residential development. It is assumed that with this growth, earth resources have been affected to accommodate new construction. In addition, construction and operation of the proposed Tesoro Clean Products Upgrade Project (Tesoro 2015) (see Table 3.0-2 in Chapter 3.0 –



Introduction, for additional project details) has the potential to impact earth resources. The Tesoro project and the proposed project could have cumulative impacts on earth resources. These impacts would be minimized by construction BMPs and localized to the Tesoro Anacortes Refinery site and the proposed project and mitigation sites.

Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified.

Chapter 3.2 – Groundwater

Potential Impacts

Construction impacts to groundwater include the potential release of hazardous materials to groundwater, construction stormwater, and construction dewatering. Construction equipment would require refueling and maintenance that poses a risk of contaminant releases to the ground (e.g., fuel, hydraulic fluid, oil, etc.). Excavation equipment would likely encounter groundwater where cut depths exceeded 10 feet along most of the proposed project alignment.

Potential impacts to groundwater from proposed project operations could occur from permanent subsurface modifications, stormwater, and oil leaks and spills. Permanent subsurface modifications at the proposed project site would require collection and conveyance of groundwater that seeps into the cut. Stormwater from the proposed project site has the potential to accumulate hydrocarbons from fuels used on site and other contaminants that seep into local groundwater. Groundwater seepage in the cut slopes of the proposed project site could indirectly affect local groundwater levels and movement.

Cumulative Impacts

Within the study area, there has been significant agricultural, industrial, commercial, and residential development. It is assumed that with this growth and new construction, groundwater has been affected. In addition, construction and operation of the proposed Tesoro Clean Products Upgrade Project has the potential to impact groundwater. The Tesoro project and the proposed project could have cumulative impacts on groundwater. These impacts would be minimized by construction BMPs and localized to the Tesoro Anacortes Refinery site and the proposed project and mitigation sites.

Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified.

Chapter 3.3 – Surface Water

Potential Impacts

During construction, direct impacts to stormwater patterns and water quality could occur from flows that cause erosion and sedimentation downstream of soil disturbance activities, runoff that has been in contact with uncured concrete that may have high pH values, or release of pollutants from equipment. During operations, contamination of surface water from leaks or spills from tank cars or petroleum products, lubricants, and chemicals from locomotive engines could occur.



Above-ground leaks that occur within the area of the rail unloading facility would be captured by a concrete platform with curbs and drains. These leaks would then be routed to the oil/water separation pond system for treatment. If any leaks occur on site at the unloading facility, but outside of the unloading platform, they would be routed into the North and South stormwater ponds. The oil/water separation vaults designed as part of the stormwater pond system are intended to capture any releases that could occur during daily operations. Direct impacts from stormwater runoff from additional impervious surfaces could cause a reduction in water quality.

The proposed development of the mitigation site would restore a tidal connection between the 73-acre site and Padilla Bay, which would have a beneficial impact on the wetland mitigation site. Because no construction would take place along the Anacortes Subdivision, there would be no direct or indirect impacts to surface water flows or water quality. Increased train traffic on the Anacortes Subdivision has the potential to increase accidents involving trains traveling along the corridor, and would require continued maintenance of the rail corridor. There could also be leaks or spills from tank cars or leaks of petroleum products, lubricants, and chemicals from locomotive engines along the subdivision from daily operations. These releases are not treated along the Anacortes Subdivision.

Cumulative Impacts

Within the study area, there has been significant agricultural, industrial, commercial, and residential development. It is assumed that with this growth and construction, surface water resources have been affected. In addition, construction and operation of the proposed Tesoro Clean Products Upgrade Project has the potential to impact surface water resources. The Tesoro project and the proposed project could have cumulative impacts on surface water resources. These impacts would be minimized by construction BMPs and localized to the Tesoro Anacortes Refinery site and the proposed project and mitigation sites.

Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified.

Chapter 3.4 – Fish and Aquatic Species and Habitat

Potential Impacts

Construction at the proposed project site would impact fish and aquatic resources through the loss or reconfiguration of drainage channels, streams, and riparian habitat. The project would result in the reconfiguration of all drainages crossing the project area. Changes to available fish habitat, introduction of turbid water, and fish handling associated with site isolation and in-water construction activities in Stream S may temporarily affect fish during construction.

Construction at the proposed wetland mitigation site would impact fish and aquatic resources. By removing portions of the perimeter dike and supporting tidal exchange within the site, fish would gain access to habitat previously unavailable to them. The entire extent of estuarine wetlands that would develop on the wetland mitigation site is presumed to be accessible to fish from Padilla Bay, as well as support a diverse mix of estuarine wetland habitats and vegetation. A tidal channel would be constructed within the site to support flow and fish access. These restored



habitats would contribute prey resources and organic matter to Puget Sound and valuable nursery habitat for juvenile salmon.

During operations, water from ditches (except water directed to Stream S) would be captured and conveyed across the study area by either a culvert or stormwater system to one of the two new stormwater ponds. The ponds include pre-treatment oil/water separation systems and provide for detention and controlled release into Padilla Bay. Discharge from the stormwater ponds would be through spreaders that could allow for infiltration during appropriate levels of inundation. When the ground is saturated, the discharge is presumed to form sheet flow into a drainage ditch, wetland, or stream. The reconfiguration of Stream S would provide long-term beneficial impacts to fish through the creation of new habitat.

Cumulative Impacts

Within the study area, there has been significant agricultural, industrial, commercial, and residential development. It is assumed that with this growth and new construction, fish and aquatic resources have been affected. Construction and operation of the proposed Tesoro Clean Products Upgrade Project has the potential to impact these resources. The Tesoro project and the proposed project could have cumulative impacts on fish and aquatic species and habitat. These impacts would be minimized by construction BMPs and localized to the Tesoro Anacortes Refinery site and the proposed project and mitigation sites.

Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified.

Chapter 3.5 – Wetlands

Potential Impacts

The proposed project would permanently fill and/or excavate six of the 23 identified wetlands on the proposed project site. In total, 21.21 acres of wetlands would be filled. This would include 0.19 acre of Category II wetlands, 20.71 acres of Category III wetlands, and 0.31 acre of Category IV wetlands.

The project would also convert approximately 1.22 acres of the forested and scrub-shrub wetlands into emergent habitats. The conversions would occur due to the relocation and construction of underground natural gas and water pipelines and be considered permanent impacts. These areas would have a temporal loss of habitat function because it may take some time to reestablish the functional levels lost during the conversions. However, after the new emergent habitats are established, the capacity of these areas to treat runoff would likely be increased from their previous functions.

Both short- and long-term temporary impacts would result from clearing to allow for construction access and the rerouting and installation of underground gas and water pipelines. Short-term impacts would occur in portions of seven wetlands, totaling 8.10 acres. The affected areas in the wetlands would consist mostly of pasture grasses. Following construction, these areas would be restored to pre-construction conditions and be reseeded with pasture plant species. Long-term temporary impacts would occur in approximately 0.23 acre. This area would



be restored with native woody vegetation after construction; however, there would be a temporal loss (over a year) of wetland functions until planted woody vegetation became established. Compensation for these long-term temporary impacts would occur at the proposed wetland mitigation site.

Permanent impacts to buffers generally result from the loss of vegetated buffer areas. The proposed project would permanently remove 5.2 acres of forested buffers in five wetlands and 7.38 acres of grazed pasture wetland buffers at eight wetlands.

Temporary buffer impacts would occur in 11 wetlands as a result of clearing to allow for construction access and the rerouting and installation of underground gas and water pipelines. The temporary affected area totals 6.76 acres, which includes 1.88 acres of forested and shrub buffers and 4.88 acres of grazed pasture dominated by nonnative grasses. These temporary cleared areas would be restored to pre-construction contours and planted with native species to comply with the U.S. Army Corps of Engineers (USACE) permit requirements.

Cumulative Impacts

In the cumulative impacts study area, reasonably foreseeable future actions with the potential to impact wetlands include the Tesoro Clean Products Upgrade Project, which would impact about 0.0105 acre, and the Old Highway 99 N Overpass of BNSF Railroad (see Table 3.0-2 in Chapter 3.0 – Introduction, for additional project details), which would impact 0.071 acre. Together, the proposed project and these reasonably foreseeable future actions would contribute to a cumulative impact on wetlands due to filling of wetlands and the permanent loss of wetland functions.

Historically, there has also been significant agricultural, industrial, commercial, and residential development in the study area. It is assumed that with this growth and construction, wetlands have been affected. Impacts from the proposed project would be mitigated by the creation of a 73-acre wetland mitigation site. Mitigation would also be required for the impacts from the reasonably foreseeable future actions through mitigation plans. Because the mitigations plans are required to achieve the goal of no net loss of wetlands, the potential cumulative impacts would be minimized.

Unavoidable Significant Adverse Impacts

If mitigation is implemented as proposed there would be no unavoidable significant adverse impacts.

Chapter 3.6 – Vegetation and Terrestrial Wildlife

Potential Impacts

Vegetation

Removal of vegetation would be required to construct the project. The overall permanent impacts of construction on vegetation are not anticipated to be significant because the primary impacts to pasture vegetation are small-scale in the context of the larger contributing Telegraph Slough-Padilla Bay watershed, which is predominantly agriculture and pasture. Forest stands



that would be permanently affected comprise a fraction of forest stands identified in the study area.

Construction of the wetland mitigation site would require removal of vegetation. However, in accordance with the wetland mitigation plan nearshore ecosystem processes would be reestablished and are anticipated to develop into nearshore habitats over time (mudflats, salt marshes, tidal channels, and upland transition zones).

Because special-status plant species are not known to occur on the project or wetland mitigation sites, it is unlikely that construction would directly affect these species. Construction of the proposed project and mitigation sites may increase the risk of introducing or contributing to the spread of noxious weed species.

Terrestrial Wildlife

Construction of the proposed project and wetland mitigation sites would temporarily disturb and permanently alter wildlife habitat in some vegetation communities. Construction-related water quality impacts may alter foraging opportunities for waterfowl and other aquatic birds because of disturbances to sediments through in-water work.

Impacts might include water clouding, which could obscure prey for waterfowl and other aquatic birds. Noise and light associated with construction activities could cause stress to wildlife and alter behavior patterns. For example, noise and light could interfere with normal reproduction and feeding. Construction impacts from vegetation removal and earthwork are not anticipated to be significant. These disturbances could result in mortality of some individual animals and permanent loss of breeding habitat such as freshwater wetlands. The overall impact is not anticipated to adversely affect the population viability of any species near the project.

Construction would not directly alter marbled murrelet habitat; however, marbled murrelets could be disturbed by construction activities. Construction would permanently remove two active bald eagle nests: one near the Anacortes Subdivision in the southern portion of the proposed project site, and a second within the wetland mitigation site. A third bald eagle nest near the proposed project site would be retained. Because other special-status species or habitats are not known to occur on the project or wetland mitigation sites, it is unlikely that construction would directly affect these species or their habitat.

Operation of the rail unloading facility may result in direct, long-term disturbance to wildlife. Such impacts could include increased degradation of habitat quality, increased animal-train collisions, light and glare impacts, **disruption of species' social structures**, avoidance or abandonment of previously occupied areas adjacent to the facility, and obstructions to wildlife movement. Operational noise from the project may result in wildlife avoidance in the immediate vicinity. However, this impact is anticipated to be negligible, given the current noise levels from existing operations at the Shell PSR site and other surrounding development.

Operation of the proposed project has the potential to affect behavior of bald eagles at the retained nest near the proposed project site. Operation and maintenance of stormwater facilities



near the retained bald eagle nest would increase human activity within 200 feet of the existing nest, and forested vegetation surrounding the nest would be permanently removed, making human activity visible. The retained bald eagle nest and proposed nest platforms would be at least 400 feet away from the proposed new rail spur, and are not anticipated to be significantly affected by noise from rail operations.

Operation of the proposed project may also affect behavior of great blue herons at the March Point Heronry. Light and noise pollution has the potential to affect behavior; however, impacts to herons from additional light pollution are expected to be negligible. The existing heron colony is surrounded by industrial and transportation development and is acclimated to noise from existing train traffic as evidenced by the sustained productivity of the colony. Therefore, noise impacts would be minimal.

Cumulative Impacts

Within the study area, there has been significant agricultural, industrial, commercial, and residential development. It is assumed that with this growth and construction, vegetation and terrestrial wildlife have been affected. The Tesoro Clean Products Upgrade Project is anticipated to have minimal impacts on vegetation and terrestrial wildlife as the project would be constructed within a previously developed area of the refinery. The proposed project, and to a minimal extent, the Tesoro project, could contribute to a cumulative impact on vegetation and terrestrial wildlife. These impacts would be minimized by construction BMPs and localized to the Tesoro Anacortes Refinery site and the proposed project and mitigation sites.

Unavoidable Significant Adverse Impacts

If mitigation is implemented as proposed there would be no unavoidable significant adverse impacts.

Chapter 3.7 – Cultural Resources

Potential Impacts

The proposed project would disturb previously recorded historic-era archaeological sites located within the proposed project site boundaries. However, the sites have been determined not eligible for listing in the National Register of Historic Places (NRHP) by the USACE and the Washington Department of Archaeology and Historic Preservation (DAHP). No previously documented historic-era buildings, structures, or objects are located within the footprint of the proposed project site.

At the proposed wetland mitigation site, an archaeological site would likely be disturbed by project activities. However, this site has been determined not eligible for listing in the NRHP. Three previously documented historic-era buildings, structures, or objects are located within the proposed wetland mitigation site. However, these three resources have been determined not eligible for listing in the NRHP by the USACE and DAHP.

No archaeological sites, other cultural resources, or historic-era resources have been documented within the immediate vicinity of the potential spoils disposal sites. Because these locations are



operating pits and no expansion is planned for this project, no environmental consequences are anticipated.

Since the March Point area is important for Native American land use, there is a possibility that archaeological sites exist within the proposed project site but were not observed during cultural resource inventory work. These sites may range from occupation locations to fishing or resource procurement and processing locations. Such resources would be an important discovery and would help to better illustrate Native American subsistence, land use, and settlement practices. If resources are made known during the course of project development, the impacts and mitigation would be reassessed.

Cumulative Impacts

Within the study area, there has been significant agricultural, industrial, commercial, and residential development. With this development, there is the potential that NRHP-listed or eligible archaeological sites, historic-era buildings, or objects have been disturbed. However, impacts would have been mitigated. Therefore, no cumulative impacts are anticipated.

Unavoidable Significant Adverse Impacts

If no additional cultural resources are discovered and mitigation is implemented as proposed, there would be no unavoidable significant adverse impacts.

Chapter 3.8 – Treaty and Traditionally Used Resources

Potential Impacts

No Traditional Cultural Properties, Cultural Landscapes, specific gathering areas or plants important to tribes, or specific hunting areas or certain terrestrial animals have been identified in the study area to date; therefore, no impacts from the proposed project were identified.

The study area is located near tribal fisheries. The impacts to tribal fisheries would be the same as those described for fish and aquatic resources in Chapter 3.4 – Fish and Aquatic Species and Habitat. Impacts to tribal fisheries could include loss of or changes to riparian habitat, or changes in water quality that could impact fish. Depending on the degree of direct impacts, treaty resources, traditional lifeways, health, and the culture of tribes could be affected due to degradation of their fisheries.

Cumulative Impacts

The proposed project would not disturb any known Traditional Cultural Properties or Cultural Landscapes; specific gathering areas or plants important to tribes; or specific hunting areas or certain terrestrial animals important to tribes; therefore, the proposed project would not contribute to cumulative impacts on these resources. Tribal fisheries are located near the study area. The cumulative impacts would be the same as described for fish and aquatic resources in Chapter 3.4 – Fish and Aquatic Species and Habitat.

Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified based on available information.



Chapter 3.9 – Noise and Vibration

Potential Impacts

Construction of the proposed project and wetland mitigation sites would not exceed thresholds for noise impacts at any sensitive noise receptors; therefore, there would be no adverse noise impacts during construction. Also, construction activities at the proposed project and wetland mitigation sites would not exceed the thresholds for vibration that could result in structural damage to nearby buildings, or the thresholds for annoyance from vibration at nearby residences. Therefore, there would be no adverse vibration impacts during construction.

Operation of unit trains at the proposed project site would produce ground-borne vibration and noise; however, it would not exceed the thresholds for impacts. Operational noise from the unit trains along the Anacortes and Bellingham subdivisions is predicted to result in moderate or severe impacts in residential areas within the study area. The primary cause of these noise impacts would be the use of train horns at public at-grade crossings. Some 168 residential receptors are predicted to be impacted by noise that exceeds the moderate impact threshold; and 44 would experience noise that exceeds the severe impact threshold.

Operation of unit trains would produce ground-borne vibration and noise along the Anacortes and Bellingham subdivisions. However, the levels produced would not exceed the thresholds for impacts.

Cumulative Impacts

The proposed project, combined with past, present, and reasonably foreseeable future actions, would result in a cumulative impact on noise levels. One identified reasonably foreseeable future action would add a total of 18 train trips per day to rail traffic on the Bellingham Subdivision. This action, combined with the proposed project, would add a total of 20 train trips per day, increasing the number of trains from 21 to 41, primarily due to the greater frequency of train horns that would result. The doubling of the train traffic would be expected to increase future noise levels on the Bellingham Subdivision by approximately 3 dBA relative to existing L_{dn} sound levels. For context, a 3 dBA increase is considered the minimum amount of change in sound level that is perceptible to humans.

Unavoidable Significant Adverse Impacts

All of the moderate and severe impacts along the Anacortes and Bellingham subdivisions would remain.

Chapter 3.10 – Air Quality and Greenhouse Gases

Potential Impacts

During construction, the primary sources of emissions would be nonroad construction equipment exhaust, fugitive dust from earthmoving operations, and on-road truck exhaust from hauling away and delivering materials to the project and wetland mitigation sites. Emissions **would also result from workers' motor** vehicles traveling to and from the construction site.



The direct emissions associated with operation of the rail unloading facility would include a small amount of volatile organic compounds (VOCs) due to equipment leaks and wastewater treatment. No emissions of other criteria air pollutants are anticipated. The operational air emissions from the proposed project would not contribute enough air pollutant emissions to result in an exceedance of the National Ambient Air Quality Standards/Washington Ambient Air Quality Standards (NAAQS/WAAQS). As the levels of the NAAQS and WAAQS are tied to public health, no impacts to public health are anticipated because no exceedances are anticipated. Emissions associated with delays at at-grade railroad crossings would be well below one ton per year for criteria pollutants. No direct emissions during operations are anticipated from the wetland mitigation site.

The proposed project would not increase greenhouse gas (GHG) emissions from the Shell PSR. Emissions resulting from the refinement and consumption of products from the Shell PSR were not assessed because **the refinery's operating capacity** would not change with implementation of the proposed project. The crude oil shipped to the proposed unloading facility would replace deliveries from the Alaska North Slope currently delivered via marine vessel.

The transport of crude oil from the mid-continent area would result in a 93-percent increase of GHG emissions resulting from changing delivery of oil from tanker ships to rail. The annual emissions from oil tankers delivering oil to the Shell PSR is about 48,224 metric tons per year. The annual emissions from train delivery oil to the Shell PSR would be about 93,211 metric tons per year. The net increase in GHG emissions as a result of this change would be 44,987 metric tons per year.

Cumulative Impacts

The proposed project, combined with past, present, and reasonably foreseeable future actions, would have a cumulative impact on GHG and nitrogen oxide (NO_x) emissions. Reasonably foreseeable future actions that would increase rail traffic would also increase the NO_x emissions for all counties traversed by the trains. However, as of 2008, the U.S. Environmental Protection Agency (USEPA) has revised its emission standards for new and rebuilt locomotives that will lower emissions as older locomotives are replaced or rebuilt. Therefore, the emissions from each locomotive will decrease over time and overall NO_x emissions would be anticipated to decrease.

GHG emissions as a result of proposed project operations would relate only to changes in the transport of materials to the facility, as throughput capacity of the Shell PSR is anticipated to remain the same. The change associated with the proposed project would increase GHG emissions by approximately 44,987 metric tons per year. Because GHGs are a global issue that are transmitted within and beyond the state line, this increase in GHGs may need to be offset in **other sectors to reach the state's goals**. Therefore, from both global and state perspectives, the proposed project, combined with past, present, and reasonably foreseeable future actions, would contribute to a cumulative impact on GHG emissions.

Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified.



Chapter 3.11 – Energy and Natural Resources

Potential Impacts

Construction activities for the proposed project and wetland mitigation site would require fuel consumption for construction activities and to transport materials, equipment, and workers to the project sites. The scope of construction at the project and wetland mitigation sites is similar to other large projects in Skagit County, and would not have an adverse impact on energy supplies. Once constructed and operating, electrical power would be used to run the equipment associated with the rail unloading facility; however, impacts on energy from operations at the proposed project site would be minimal. The wetland mitigation site would require minimal energy use, and be mainly in the form of fuel used by vehicles or equipment for monitoring and maintenance.

Transporting crude oil by rail from the mid-continent area to the Shell PSR would result in a net increase in diesel fuel use over the existing method of transporting crude oil by marine vessel from Valdez, Alaska. Transporting crude oil by rail would require approximately 9.1 million gallons of diesel fuel annually; transporting it via marine vessel would require approximately 4.8 million gallons annually. This increase would have a minimal impact on energy supplies.

Cumulative Impacts

The proposed project would contribute to a cumulative impact on energy and natural resources; however, the fuel and electricity use required for the proposed project and past, present, and reasonably foreseeable future actions would not exceed available supply.

Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified.

Chapter 3.12 – Land Use and Social Elements

Potential Impacts

Land Use

Construction and operation of the proposed project and wetland mitigation sites would be compatible with surrounding heavy industrial, light industrial, agricultural, and commercial land uses. It is anticipated that current housing levels would be adequate to support any workers coming from outside the area during construction and operations.

Recreation

Construction and operation of the proposed rail unloading facility would not directly affect recreational resources. Construction of the wetland mitigation site would temporarily limit access to duck hunters in the Swinomish Duck Club. Following construction, however, the duck hunters would be permitted to enter hunting areas that can be accessed via the wetland mitigation site, but would not be able to hunt within the wetland mitigation site boundaries.

Transport of crude by rail to the proposed facility along the Anacortes Subdivision would have direct impacts on recreational facilities from increased noise and vibration and traffic delays. The



added trains would generally result in an increase in overall average noise levels, but would not increase maximum noise levels associated with a single train passing through the area.

Utilities

Construction activities at the proposed project and wetland mitigation sites would result in a temporary increase in water use and the generation of solid waste, including trees cut down at the wetland mitigation site that would require disposal. Operation of the proposed project would result in increased electricity and water use and solid waste generation. Operation of the wetland mitigation site would require negligible electricity, but would not require water use or generate solid waste. No impacts on the supply of any utilities are anticipated. Construction activities for the proposed project site would interrupt operation of the BP Olympic pipeline, Kinder Morgan Puget Sound pipeline, and Puget Sound Energy power lines for up to two days while they were relocated.

Community services

No increases in demand for hospitals, schools, libraries, community centers, or religious facilities are expected during construction or operation of the proposed project and wetland mitigation sites; therefore, no impacts are anticipated.

Minority, Low-Income, and LEP Populations

Construction and operations would not disproportionately impact minority, low-income, or limited English proficiency (LEP) populations. Construction of the proposed project would temporarily increase air emissions from use of construction equipment; however, they would not be anticipated to result in public health effects. Operation of the proposed project would not contribute enough air pollutants to result in an exceedance of the NAAQS/WAAQS and, therefore, are not anticipated to result in public health effects.

Cumulative Impacts

Land Use

The proposed project is not anticipated to contribute to a cumulative impact on land use or social elements. Since 1958 (the beginning of the timeframe for the cumulative impacts analysis), there has been significant agricultural, industrial, commercial, and residential development in the study area. Land uses have changed with this growth; however, development has been compatible with applicable Skagit County and City of Anacortes land use designations and surrounding uses. Construction and operation of the proposed Tesoro Clean Products Upgrade Project (Tesoro 2015) (see Table 3.0-2 in Chapter 3.0 – Introduction, for additional project details) would be compatible with existing land uses. No cumulative impacts are anticipated.

Recreation

The proposed project would temporarily impact recreational resources during construction. This would not contribute to a cumulative impact as the effect would be temporary; therefore, no long-term impacts are anticipated. Past development in the study area has not adversely affected recreational resources and the Tesoro Clean Products Upgrade Project is not anticipated to



adversely affect recreational resources; therefore, no adverse impacts to recreational resources are anticipated. No cumulative impacts are anticipated.

Utilities

The proposed project would temporarily increase demand for utilities during construction and result in a negligible increase in demand for utilities during operations. Past development in the study area has not adversely impacted the supply of any utilities and the Tesoro Clean Products Upgrade Project would not adversely affect future supplies. No cumulative impacts are anticipated.

Community Services and Minority, Low-Income, and LEP Populations

The proposed project would not affect demand for community services or disproportionately impact minority or low income populations, or affect public health. Neither past development in the study area nor the Tesoro Clean Products Upgrade Project are expected to adversely affect these resources. No cumulative impacts are anticipated.

Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified.

Chapter 3.13 – Visual Resources

Potential Impacts

Construction and operation of the proposed project would take place in an area with existing industrial development and activities; therefore, visual impacts from construction and operation would be minimal. Operation of the rail unloading facility would produce minor light and glare impacts. The construction of the wetland mitigation site would be largely shielded from the surrounding area by existing stands of trees; therefore, visual impacts during construction would be minimal. The wetland mitigation site would be similar in character to the surrounding area and would not attract the attention of viewers. After construction, viewers would not notice a change to the visual resources at the wetland mitigation site.

A retaining wall would be built along an approximately 1,000-foot-long stretch of the Anacortes Subdivision. Construction activities would result in minor visual impacts from the presence of construction equipment along the rail line. After construction, the retaining wall would be similar in **height to the existing tracks, but close to South March's Point Road. This change in the** visual environment would result in a moderate impact.

Additional trains traveling along the Anacortes Subdivision would result in an increase in the frequency and the length of time that trains transporting crude oil were running and in view, but would not add a new type of visual impact to the existing rail corridor. Visual impacts from trains associated with the proposed project would therefore be minor.

Cumulative Impacts

Within the study area, there has been significant agricultural, industrial, commercial, and residential development. It is assumed that with this growth and new construction, visual



resources have been affected. Construction and operation of the Tesoro Clean Products Upgrade Project has the potential to impact these resources. Together, these projects would contribute to a cumulative impact on visual resources. However, given their proximity, the impacts would be localized to the Tesoro Anacortes Refinery site and the proposed project and mitigation sites.

Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified.

Chapter 3.14 – Economics

Potential Impacts

The construction effort for the proposed project would create a short-term stimulus for the Washington State economy through purchases of materials, supplies, equipment, and services; and labor wages for construction workers. After the proposed project becomes operational, the Shell PSR would experience a change in net employment and payroll, as well as some general operational expenditures, such as energy and office supplies. These impacts are considered minimal.

Cumulative Impacts

Construction of the proposed project and reasonably foreseeable future projects would create a short-term stimulus for the Washington State economy through purchases of materials, supplies, equipment, and services; and labor wages for construction workers. During operations, the proposed projects and reasonably foreseeable future projects would create economic benefits for local economies through the creation of jobs and operational expenditures.

Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified.

Chapter 3.15 – Rail Traffic and Transportation

Potential Impacts

Rail access to the unloading facility would be provided by a new connection to the existing Anacortes Subdivision located to the southeast, which would require modifications to the Anacortes Subdivision configuration. Short segments of the existing Anacortes Subdivision and a siding track would be realigned slightly to the south. Temporary construction impacts to rail traffic could occur as the new alignment is brought into operation. The majority of the construction would be done adjacent to the existing rail line and the only disruption to rail traffic would occur when the formal rail line connection is made. BNSF Railway would manage the timing, testing, and opening of the new alignment and maintain current rail operations to the extent possible to minimize delay.

During operation, the proposed project would increase traffic along the Anacortes Subdivision by up to six unit trains per week, or two trips per day on average (one in each direction).

Intersection occupancy time by a Shell unit train would be approximately 8 minutes. Marine boat traffic would experience approximately 12-minute delays at the Swinomish Channel Swing



Bridge to allow for the closing of the bridge, the passing of a train, and the re-opening of the bridge.

The direct impact of the proposed project would be additional train traffic on the Anacortes Subdivision. As no other reasonably foreseeable future actions were identified for the Anacortes Subdivision, the cumulative impact would be the same as the direct impact.

Cumulative Impacts

The direct impact of the proposed project would be additional train traffic on the Anacortes Subdivision. As no other reasonably foreseeable future actions were identified for the Anacortes Subdivision, the cumulative impact would be the same as the direct impact.

The proposed project, combined with the past, present, and reasonably foreseeable future actions, would have a cumulative impact on the rail transportation network in Washington State. In the Washington State Rail Plan, the Washington State Department of Transportation (WSDOT) indicates that five of the nine subdivisions used by proposed project unit trains are projected to be overcapacity by 2035 (WSDOT 2014). Although they would represent a small portion of existing and projected traffic, the six additional proposed Shell unit trains per week would contribute to a cumulative impact on the capacity of the rail transportation network. BNSF Railway would likely address key capacity issues as they arise.

Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified.

Chapter 3.16 – Vehicle Traffic and Transportation

Potential Impacts

Short-term impacts on vehicular transportation would occur during proposed project construction. Construction activities would result in up to an additional 652 vehicles per day on local roads for the seven-month excavation period, and up to an additional 203 vehicles per day on local roads for the 15-month nonexcavation period. These additional vehicles would degrade the level of service at the SR 20 / Oak Harbor / SR 20 Spur intersection at Sharpes Corner.

During operations, the proposed project would add six unit trains in each direction per week, on average, through the study area. This would result in delays at at-grade crossings. However, no significant impacts are anticipated because the crossing blockage time of 8 minutes is less than the maximum allowed blockage time of 10 consecutive minutes (WAC 480-62-220).

Cumulative Impacts

On the Anacortes Subdivision, no other reasonably foreseeable future actions are associated with specific crossings or intersections. The direct impact of the proposed project is additional intersection traffic delays at crossings. There are no other reasonably foreseeable future actions on the Anacortes Subdivision that would impact vehicle delays; therefore, the cumulative impact to intersection delays would be the same as the direct impact.



The proposed project, combined with the past, present, and reasonably foreseeable future actions, would have a cumulative impact on traffic delays at at-grade crossings along the Bellingham Subdivision. One identified reasonably foreseeable future action would add an estimated total of 18 train trips per day to rail traffic on the Bellingham Subdivision. Combined with the proposed project, this would increase the daily train volume from 21 to 41 trains per day, which would lead to additional delays at at-grade crossings. Although they would represent a small portion of existing and projected traffic, the additional proposed Shell unit trains would contribute to a cumulative impact on traffic delays.

Unavoidable Significant Adverse Impacts

Implementation of signal timing revisions would not completely mitigate traffic delays at at-grade crossings. However, this is not considered an unavoidable significant adverse impact from the proposed project as Shell unit trains would only represent a small portion of the existing and projected rail traffic that would lead to the additional traffic delays.

Chapter 3.17 – Public Services and Incident Response

Potential Impacts

Construction of the proposed project and wetland mitigation sites would increase the potential for injuries or accidents that may require public services. Increased worker and truck traffic during construction would cause delays on access roads, including SR 20, which could affect the response times of fire, police, or emergency medical response teams. However, this impact would be temporary and would subside following construction. Operation of the proposed project and wetland mitigation sites would not create a substantial new demand for public services locally.

During operation, the transport of crude oil by rail to the proposed project site could have impacts on police, fire, and emergency medical response times. Service response times could increase because of additional delays at at-grade railroad crossings on the BNSF Railway main line throughout Washington due to passing unit trains going to and from the project site. There is also the potential for increased demand for emergency services due to a rail accident.

Cumulative Impacts

On the Anacortes Subdivision, there are no other reasonably foreseeable projects that would increase rail traffic. Therefore, the potential for cumulative impacts is the same as direct impacts identified for the proposed project. On the Bellingham Subdivision, the proposed project, when considered with other reasonably foreseeable future projects, would increase delays at at-grade crossings, which could lead to increased police, fire, and emergency medical response times.

Unavoidable Significant Adverse Impacts

Implementation of signal timing revisions would not completely eliminate delays for emergency vehicles at at-grade crossing; however, this is not considered an unavoidable significant adverse impact from the proposed project as Shell unit trains would only represent a small portion of the existing and projected rail traffic that would lead to the additional traffic delays.



Chapter 4 – Environmental Health and Risk

Potential Impacts

If an oil release were to occur from a train traveling to or from the Shell PSR, many environmental resources and sensitive areas could be affected. Biological resources potentially impacted by surface and shoreline oiling include waterfowl, aerial and diving birds, wetland and terrestrial wildlife, fur-bearing marine mammals, pinnipeds (seals and sea lions), and cetaceans (whales and dolphins). Biota potentially impacted by water column toxicity include mobile and stationary bottom-dwelling fish and invertebrates, small fish, bottom-dwelling organisms, and plankton that drift with the currents.

There is also the risk of fire or explosion associated with an accident involving a crude-by-rail train. The probability of a fire or explosion in the event of a release is low, but could have significant impacts on many human, built, and environmental resources were such an accident to take place.

Unavoidable Significant Adverse Impacts

An accidental release of oil resulting in a spill, fire, or explosion, could have unavoidable significant adverse impacts.



Table ES-1 Summary of Impacts and Proposed Mitigation

| Resource | Potential Impacts Requiring Mitigation | Proposed Mitigation | Unavoidable Significant Adverse Impacts Following Mitigation |
|---|--|---|--|
| Earth Resources | None | No mitigation proposed at this time. | None |
| Groundwater | None | No mitigation proposed at this time. | None |
| Surface Water | None | No mitigation proposed at this time. | None |
| Fish and Aquatic Species and Habitat | None | No mitigation proposed at this time. | None |
| Wetlands | Some 25.83 acres of permanent wetland impacts, 0.23 acre of long-term temporary impacts, and 12.58 acres of permanent wetland buffer impacts. | Shell would provide compensatory mitigation for wetland impacts at a wetland mitigation site approximately 2 miles east of the project site at the south end of Padilla Bay. | None if mitigation is implemented and performs as proposed. |
| Vegetation and Terrestrial Wildlife and Habitat | Construction of the proposed project would permanently remove two active bald eagle nests: one near the Anacortes Subdivision in the southern portion of the proposed project site, and a second found within the wetland mitigation site. | Shell would mitigate for impacts to bald eagle nests by creating two new nesting platforms at the proposed project site and two nesting platforms at the wetland mitigation site. | None if mitigation is implemented as proposed. |



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| Resource | Potential Impacts Requiring Mitigation | Proposed Mitigation | Unavoidable Significant Adverse Impacts Following Mitigation |
|---|---|---|---|
| Cultural Resources | <p>No NRHP-eligible archaeological site or historic-era resources are found within the Area of Potential Effects.</p> <p>Because the March Point area is important for Native American land use, there is a possibility that archaeological sites exist within the proposed project site but were not observed or known during cultural resource inventory work. Engagement with tribes would help to inform if such sites exist.</p> | <p>Shell would develop and implement an Unanticipated Discovery Plan for use during construction when archaeological monitors are not present.</p> | <p>None if mitigation is implemented as proposed.</p> |
| Treaty and Traditionally Used Resources | <p>No Traditional Cultural Properties, Cultural Landscapes, specific gathering areas or plants important to tribes, or specific hunting areas or certain terrestrial animals have been identified in the study area to date. No impacts to treaty or traditionally used resources from the proposed project were identified.</p> | <p>No additional mitigation measures are proposed at this time beyond the avoidance and minimization measures described in Chapter 3.4 – Fish and Aquatic Species and Habitat. Should any additional tribal resources be made known, Skagit County and Ecology may reassess potential impacts and mitigation.</p> | <p>None identified at this time.</p> |
| Noise and Vibration | <p>Operational noise from unit trains along the Anacortes and Bellingham subdivisions is predicted to result in moderate or severe impacts to residential land uses. The primary cause of noise impacts would be the use of train horns at the at-grade crossings. Some 168 residential receptors are predicted to exceed the moderate impact threshold and 44 would exceed the severe impact threshold.</p> | <p>No mitigation measures proposed beyond the avoidance and minimization measures that would be developed and enforced as part of the permitting process.</p> | <p>All of the moderate and severe impacts along the Anacortes and Bellingham subdivisions would remain.</p> |



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| Resource | Potential Impacts Requiring Mitigation | Proposed Mitigation | Unavoidable Significant Adverse Impacts Following Mitigation |
|------------------------------------|--|---|--|
| Air Quality and Greenhouse Gases | The transport of crude oil from the mid-continent area would result in a 44,987 metric tons per year net increase of GHG emissions. This 93-percent increase over current shipment operations results from changing delivery of oil from tanker ships to rail. | Shell would assess and update, as necessary, its facility-wide vehicle anti-idling policy to include the rail unloading facility to reduce GHG emissions from construction and operation of the proposed project. | None |
| Energy and Natural Resources | None | No mitigation proposed at this time. | None |
| Land Use and Social Elements | None | No mitigation proposed at this time. | None |
| Visual Resources | None | No mitigation proposed at this time. | None |
| Economics | None | No mitigation proposed at this time. | None |
| Rail Traffic and Transportation | None | No mitigation proposed at this time. | None |
| Vehicle Traffic and Transportation | The proposed project, when considered with other reasonably foreseeable future projects, would increase vehicular traffic delays at at-grade crossings. | Shell would fund a study to evaluate the feasibility of implementing signal timing revisions at specified at-grade crossings along the Bellingham and Anacortes subdivisions in Skagit County. | Implementation of signal timing revisions would not completely mitigate traffic delays at at-grade crossings; however, this is not considered an unavoidable significant adverse impact from the proposed project as Shell unit trains would only represent a small portion of the existing and projected rail traffic that would lead to the additional traffic delays. |



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| Resource | Potential Impacts Requiring Mitigation | Proposed Mitigation | Unavoidable Significant Adverse Impacts Following Mitigation |
|--|--|---|--|
| <p>Public Services and Incident Response</p> | <p>The impacts of transporting crude oil by rail to the proposed project site would have impacts on police, fire, and emergency medical response times. Service response times could increase because of delays at at-grade railroad crossings.</p> <p>There would be the potential for increased demand for emergency services due to an accident occurring during rail transport.</p> <p>There would be an increased risk of a release of oil in Skagit County and along the proposed project rail transport route through Washington State.</p> | <p>Shell would fund a study to evaluate the feasibility of implementing signal timing revisions at at-grade crossings along the Bellingham and Anacortes subdivisions in Skagit County.</p> <p>Shell would provide funding to create or augment existing oil and hazardous spill response equipment caches along the proposed project rail route throughout the state.</p> <p>Shell would coordinate and fund a deployment drill for a crude-by-rail spill scenario with BNSF Railway and invite the local emergency responders and tribes to participate.</p> <p>Shell would update their existing PSR oil spill contingency plan to reflect operations of the new rail unloading facility. The updated plan would demonstrate financial responsibility for the potential costs of response and cleanup of oil spills, natural resource damages, and costs to the state and affected jurisdictions for response actions to reduce the risks and impacts from an oil spill at the facility.</p> | <p>Implementation of signal timing revisions would not completely mitigate delays for emergency vehicles at at-grade crossings; however, this is not considered an unavoidable significant adverse impact from the proposed project as Shell unit trains would only represent a small portion of the existing and projected rail traffic that would lead to the additional traffic delays.</p> |



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| Resource | Potential Impacts Requiring Mitigation | Proposed Mitigation | Unavoidable Significant Adverse Impacts Following Mitigation |
|-------------------------------|--|--|---|
| Environmental Health and Risk | The proposed project would result in an increased probability of rail accidents that could result in a release of oil to the environment and a subsequent fire or explosion. | <p>The risk of a spill occurring during an accident would be minimized by using tank cars that meet or exceed the enhanced safety standards of DOT-117 specification tank cars.</p> <p>Shell would fund the purchase of hand-held VOC monitors for local responders.</p> | A release resulting in a spill, fire, or explosion, could have unavoidable significant impacts. |



NEXT STEPS AND ISSUES TO BE RESOLVED

The co-lead agencies will seek comments on the draft EIS and proposed mitigation from agencies, tribes, local communities, organizations, and the public during a 60-day comment period from October 4 to December 2, 2016. The co-lead agencies may refine or augment the mitigation in the final EIS based on the comments received.

Public hearings will be held on November 12, in Anacortes; November 16, in Mount Vernon; and November 19, in Seattle. Please see the SEPA draft EIS Fact Sheet at the beginning of this document, or visit the project website, www.shellraileis.com, for additional details regarding these public hearings. Comments will also be accepted by means of a post office box, in person at Skagit County, an online open house, e-mail, and voicemail. Comments received during the comment period will be addressed in the final EIS.

