3.2 Air

Clean air is vital to human health and is a resource protected by federal, state, and local regulations. Pollutants in the air can negatively affect humans, plants, animals, and human-made structures. Ambient (outdoor) air is affected by climate, topography, meteorological conditions, and airborne pollutants produced by natural or artificial sources.

This section describes the existing air quality in the study area. It then describes impacts on air quality that could result under the no-action alternative or as a result of the construction and routine operation[1] of the proposed action. Finally, this section presents any measures identified to mitigate impacts of the proposed action and any remaining unavoidable and significant adverse impacts.

3.2.1 What is the study area for air quality?

The study area for air quality consists of air quality on and near the project site that could be affected by construction and routine operation at the project site. The study area also includes air quality that could be affected during routine rail transport along the Puget Sound & Pacific Railroad (PS&P)[2] rail line and vessel transport through Grays Harbor out to 3 nautical miles from the mouth of the harbor.

The study area for greenhouse gas (GHG) emissions includes the project site and emissions related to rail and vessel transportation between the likely source of crude oil (Williston Basin in North Dakota) and the farthest likely refinery destination (Port of Long Beach, California). The source and destination are based on the analysis presented in Appendix Q, *Crude Oil Market Analysis.*

3.2.2 What laws and regulations apply to air quality?

Laws and regulations for determining potential impacts on air quality are summarized in Table 3.2-1. More information about these laws and regulations is provided in Appendix B, *Laws and Regulations*.

[1] Chapter 4, *Environmental Health and Safety*, addresses the potential impacts from increased risk of incidents (e.g., storage tank failure, train derailments, vessel collisions) and related consequences (e.g., release of crude oil).
[2] The PS&P rail line refers to the rail line between Centralia and the project site.

Table 3.2-1. Laws and Regulations for Air Quality

Laws and Regulations	Description
Federal	
Clean Air Act of 1963 (42 U.S.C. 7401 et seq.)	Regulates the nation's air emissions through the enforcement of the National Ambient Air Quality Standards for criteria air pollutants in the ambient (outside) air. In 2007, the U.S. Supreme Court ruled to regulate GHG emissions as air pollutants under the CAA.
State	
Clean Air Act (RCW 70.94)	Regulates stationary sources of emissions to protect air quality.
Controls for New Sources of Toxic Air Pollutants (WAC 173-460)	Establishes the systematic control of new or modified sources emitting toxic air pollution to prevent air pollution, reduce emissions, and maintain air quality that will protect human health and safety.
Reporting of Emissions of Greenhouse Gases (WAC 173-441)	Establishes mandatory GHG reporting requirements for owners and operators of certain facilities that directly emit GHGs at a rate of 10,000 $MTCO_2e$ per year or greater.
Limiting Greenhouse Gas Emissions (RCW 70.235)	Establishes statutory reductions of overall GHG emissions and report emissions to the governor bi-annually. The first target statutory reduction is to achieve 1990 level GHG emissions by 2020 and 50% below 1990 levels by 2050 (or 70% below the State's expected emissions that year).
Local	
No local laws or regulations apply to air quality.	

U.S.C. = United States Code; GHG = greenhouse gas; CAA = Clean Air Act; RCW = Revised Code of Washington; WAC = Washington Administrative Code; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

3.2.3 How were impacts on air quality evaluated?

This section describes the sources of information and methods used to evaluate impacts.

3.2.3.1 Information Sources

The following sources provided information on air quality.

- National Weather Service.
- State and federal air quality regulations and emissions levels (Table 3.2-1).
- NW AIRQUEST, a tool developed by Washington State University's Northwest International Air Quality and Environmental Science and Technology Consortium.
- The U.S. Environmental Protection Agency (EPA) EPA MOVES 2010 model.
- California Air Resources Board vessel transit emissions study (2008).

The following sources provided information on GHG emissions.

- World Resources Institute GHG emission information.
- Washington State Department of Ecology (Ecology) state GHG emissions inventory (2014a).

- Intergovernmental Panel on Climate Change Fifth Assessment Report (2013) World Resources Institute Climate Analysis Indicators Tool.
- Council on Environmental Quality draft guidance on considering climate change in National Environmental Policy Act (NEPA) reviews.

3.2.3.2 Impact Analysis

The air analysis involved two distinct parts: a quantitative analysis of the contribution of the criteria air pollutants and GHG emissions, and a qualitative discussion of the potential impacts of criteria air pollutants and toxic air pollutants on air quality in the study area. The analysis considered annual emissions based on assumptions for 2017 and annual emissions based on assumptions for 2037; differences in the results are noted, where applicable.

The quantitative analysis of the contribution of criteria air pollutants and GHG emissions included the emissions from construction and routine operation of the proposed action in the study area. Air pollutant emissions from the following sources were quantified.

- Use of equipment to construct the proposed facilities (Chapter 2, Section 2.1.5, *Construction Schedule and Methods*).
- Onsite operations, including emissions from stationary sources[3] (including the marine vapor combustion unit), vehicles, rail switching operations,[4] and vessels at dock.[5]
- Rail transport[6] along the PS&P rail line. GHG emissions along the rail route from the Williston Basin in North Dakota to the project site.
- Vessel transport[7] to 3 nautical miles from the mouth of Grays Harbor. GHG emissions along the vessel route between the project site and the farthest likely refinery destinations (Port of Long Beach, California).

Emission calculations from these sources were based on the estimated hours of operation, types of equipment, and types of fuel consumed.

Based on information from PS&P, the following assumptions regarding locomotives were used in calculating rail emissions (Irvin pers. comm.).

- No more than two locomotives would be used to move rail cars from Poynor Yard to the project site.
- Ninety-eight percent of the locomotives would be equipped with Automatic Engine Shut-off System (AESS).
- All locomotives would be Class 1 line-haul engines, not locomotives from PS&P.

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[3] Based on the estimated hours of operation, types of equipment, and types of fuel consumed based on information provided in the air permit applications.
[4] From the locomotive engines while moving cars and while idling during switching and unloading.
[5] From auxiliary engines used to internally power the shipboard electricity, pumps, bilge, etc.
[6] Based on the travel speeds and fuel consumption while loaded and unloaded, and locomotive fleet turnover changes over the 20-year planning period.
[7] From engines of tank barge (barge auxiliary engine and tug engine), assist tugs, and escort tugs based on the typical travel speeds and fuel consumption while arriving (unloaded) and departing (loaded).

Criteria pollutant emissions were considered in the context of Grays Harbor County emissions. GHG emissions were considered in the context of statewide, national, and global emissions.

The qualitative discussion of the effect of emissions of toxic air pollutants on sensitive receptors was informed by determining the emissions from onsite operations including rail and vessel emissions during loading and unloading. The toxic air pollutants with the potential to exceed Washington State Small Quantity Emission Rates, as identified in Controls for New Sources of Toxic Air Pollutants (Washington Administrative Code [WAC] 173-460), were assessed through dispersion modeling to demonstrate the ambient level of each toxic pollutant with respect to its acceptable source impact level (ASIL).[8]

3.2.4 What is the air quality in the study area?

This section describes the climate and air quality in the study area. This section also describes sensitive air quality receptors.

3.2.4.1 Climate

The climate in Grays Harbor is characterized by mild temperatures, year-round rainfall with peaks in the winter, and strong coastal winds. Temperature and precipitation records from 1891 to 2013 for the Aberdeen National Weather Service Cooperative Station show that monthly temperatures are lowest in January when the average monthly lows are 34.6°F. August is typically the warmest month with an average monthly maximum temperature of 69.8°F. Aberdeen experiences an average of about 8.6 inches of annual snowfall. Most of the precipitation falls as rain with an annual average of 83.20 inches. Average monthly rainfall over the period of record ranges from 1.21 inches in July to 13.44 inches in December. The region experiences strong coastal winds, while inland wind speeds are typically weaker. Appendix D, *Air Data*, describes climate in the study area in more detail.

3.2.4.2 Existing Air Quality

Grays Harbor County is designated an attainment area for criteria air pollutants, which means that air quality meets the federal and state health-based ambient air quality standards.

Particulate matter is the primary air pollutant at the project site. However, the highest measured 24-hour concentration nearest to the project site was well below the air quality standard for particulate matter of 2.5 micrometers or less (PM2.5).[9] The primary sources emitting particulate matter in the vicinity are home heating, trucks, fishing vessels, and commercial cargo vessels.

Background concentrations of other criteria pollutants at the project site were estimated using NW AIRQUEST.[10] Table 3.2-2 shows the criteria pollutant concentrations estimated for the project site

[8] Washington State Department of Ecology has established acceptable source impact levels (ASIL), which are screening concentrations of toxic air pollutants in the ambient air.

[9] As shown in Appendix D, *Air Data*, the highest 24-hour average PM2.5 concentration from January 1, 2010 to June 30, 2014, was 18 micrograms per cubic meter (μg/m^3)(January 2014), well below the PM2.5 air quality standard of 35 μg/m^3.

[10] NW AIRQUEST was developed by Washington State University's Northwest International Air Quality and Environmental Science and Technology Consortium (2013) as sponsored by EPA Region 10, Washington State Department of Ecology, and others. The work developed background design value estimates for 2009 to 2011 based on model-monitor interpolated products that provide realistic background design value estimates where

and their percentage of the current national or state (whichever is more stringent) ambient air quality standard.

Table 3.2-2. Background Concentrations of Criteria Air Pollutant at the Project Site and Percentage of Air Quality Standard

Pollutant Parameter	Background Concentration[a]	Percentage of National or State Ambient Air Quality Standard[b]
PM2.5 24-hour	6.9 μg/m³	20%
PM2.5 annual	3.5 μg/m³	29%
O_3 daily 8- hour maximum	51 ppb	68%
NO_2 1-hour	21 ppb	21%
NO_2 annual	1.9 ppb	3.6%
SO_2 1-hour	5.1 ppb	6.8%
SO_2 3-hour	3.3 ppb	0.7%
SO_2 24-hour	1.1 ppb	0.8%
SO_2 annual	0.6 ppb	3.0%
CO 1-hour	532 ppb	1.5%
CO 8-hour	420 ppb	4.7%
PM10 24-hour	25 μg/m³	17%

[a] Northwest AIRQUEST 2009–2011 design value.
[b] Whichever is more stringent.
PM2.5 = particulate matter with a diameter of 2.5 micrometers or less; μg/m³ = micrograms per cubic meter; ppb = parts per billion; O_3 = ozone; NO_2 = nitrogen dioxide; SO_2 = sulfur dioxide; CO = carbon monoxide; PM10 = particulate matter with a diameter of 10 micrometers or less; ppb = parts per billion

3.2.4.3 Sensitive Receptors

Sensitive air quality receptors were defined to determine potential air quality impacts at the receptors. Sensitive air quality receptors were defined as a facility or land use that houses or attracts members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of sensitive receptors include schools, hospitals, day care centers, convalescent facilities, senior centers, and parks or recreational facilities. These types of facilities and land uses are located near the project site, along the PS&P rail line between Centralia and the project site, and along the shoreline of Grays Harbor. The following sections identify sensitive receptors at the project site, along the PS&P rail line, and along the shoreline of Grays Harbor.

Project Site

Because emissions of toxic air pollutants and criteria air pollutants would be the highest at and near the project site from rail, vessel, and project site operations, the greatest potential for impacts on sensitive receptors would be near the project site.

There are 21 sensitive receptors within 1 mile of the project site (Table 3.2-3). The closest sensitive receptors to the project site are the 28th Street Landing boat launch and 28th Street Viewing Tower

nearby ambient monitoring data are unavailable. More information about the NW AIRQUEST tool can be found at http://www.lar.wsu.edu/nw-airquest/lookup.html.

(approximately 0.2 mile west of the project site along the Grays Harbor shoreline) and the West End Playfield (approximately 0.3 mile north of the project site).

Table 3.2-3. Sensitive Receptors within 1 Mile of the Project Site[a]

Name of Facility	Type of Facility	Approximate Distance from Project Site (mile)
28th Street Landing - Viewing Tower	Park	0.2
28th Street Landing	Park	0.2
West End Playfield	Park	0.3
Anna's Playhouse	Child care facility	0.5
Pacific Ave Play Park	Park	0.6
Pacific Care and Rehabilitation Center	Health care facility	0.6
Grays Harbor Podiatry Clinic	Health care facility	0.6
Washington Elementary School	School	0.7
YMCA of Grays Harbor	Facility	0.7
Olympic Stadium	Park	0.7
Grays Harbor County RSN	Health care facility	0.7
Wunderland Childcare Inc. #4	Child care facility	0.7
Batting Cages at Olympic Stadium	Park	0.8
A.J. West Elementary School	School	0.8
Hallak Medical Group	Health care facility	0.8
Grays Harbor Community Hospital	Health care facility	0.8
Sea Mar Aberdeen Medical	Health care facility	0.9
Family Medicine Grays Harbor	Health care facility	0.9
Harbor High School	School	0.9
Harbor Internal Medicine Clinic	Health care facility	1.0
Harborean	Roller skating rink	1.0

[a] The sensitive receptors were identified using internet data sources and were not field-verified.

PS&P Rail Line

Sensitive receptors within 0.25 mile of the PS&P rail line are presented in Table 3.2-4.

Table 3.2-4. Sensitive Receptors within 0.25 Mile of the PS&P Rail Line[a]

Name	City
Child/Day Preschool Care	
Snug Harbor Child Care Center	Aberdeen
Creative Hands Child Care	Aberdeen
Central Park Co-Op Preschool	Aberdeen
Careland Playschool	Montesano
Montesano Co-Op Preschool	Montesano
Tee Time Playschool	Montesano
Raykowski Eileen Day Care	Montesano

Name	City
Learning To Grow Child Care	Elma
Prairie Patch Preschool	Rochester
Precious Years	Rochester
Dell's Children's Center	Centralia
Schools	
Central Park Elementary School	Aberdeen
Beacon Avenue Elementary School	Montesano
Satsop Elementary School	Elma
Hunters Prairie School	Elma
Elma Elementary School	Elma
Elma High School	Elma
East Grays Harbor High School	Elma
Elma Middle School	Elma
Elma Head Start	Elma
Oakville High School	Oakville
Oakville Elementary School	Oakville
Rochester Head Start	Rochester
Rochester Middle School	Rochester
Rochester High School	Rochester
Rochester Primary School	Rochester
Rochester Elementary School	Centralia
Maple Lane High School	Centralia
Hospital/Medical Facilities	
Summit Pacific Medical Center	Elma
NW Indian Treatment Center	Elma
Senior Centers/Skilled Nursing	
Avalon Healthcare	Aberdeen
Silvia Center (long term/hospice care)	Montesano
Montesano Senior Center	Montesano
Parks	
John W. Vessey Memorial Ball Park	Montesano
Fleet Park	Montesano
Gladys Smith Park	Elma
Lloyd Murrey Park	Elma
Oakville Baseball Field	Oakville
Oregon Trail Park	Centralia

[a] The sensitive receptors were identified using internet data sources and were not field-verified.

Grays Harbor

There are several communities along the shoreline of Grays Harbor. The vessels calling at the project site would traverse a more southerly route, avoiding the shoreline along most of the route.

Table 3.2-5 shows 12 sensitive receptors within 0.5 mile of the shoreline along the southern portion of Grays Harbor.

Table 3.2-5. Sensitive Receptors within 0.5 Mile of the Grays Harbor Shoreline[a]

Name	City
Child/Day Preschool Care	
Rosie Day Care	Westport
Schools	
Ocosta Elementary	Westport
Ocosta Junior/Senior High	Westport
Grays Harbor College	Aberdeen
Senior Centers/Skilled Nursing	
Westport South Beach Senior Center	Westport
Parks	
Westhaven State Park	Westport
Westport City Park	Westport
Bottle Beach State Park	Aberdeen
Spinnaker Park	Ocean Shores
Washington Parks: Ocean City Beach Access Area	Ocean City

[a] The sensitive receptors were identified using internet data sources and were not field-verified.

3.2.4.4 Current Greenhouse Gas Emissions

GHG emissions trap heat in the atmosphere and increase surface temperatures on the Earth. Although some emissions occur through natural processes, emissions from human activities have increased substantially over the last 150 years. The impacts of climate change, such as sea level rise, changes in precipitation patterns, ocean acidification, and surface temperatures are experienced locally and result from global increase in GHG concentration in the atmosphere. Climate change is addressed further in Chapter 6, *Cumulative Impacts.* GHG emissions calculations are characterized in terms of carbon dioxide equivalent (CO_2e)[11] emissions based on the global warming potential factors consistent with the Intergovernmental Panel on Climate Change Fifth Assessment Report (2013) for carbon dioxide (CO_2), methane, and nitrous oxide.[12]

World Resources Institute maintains an online database of global GHG emissions that is based on a consistent method to estimate emissions for the key GHGs. It is based on inventory data provided by EPA, Department of Energy, Food, and Agriculture Organization of the United Nations, and the

[11] Carbon dioxide equivalent (CO_2e) is a metric used to compare the emissions of the different greenhouse gases based on their global warming potential. It represents the amount of carbon dioxide emission that would cause the same integrated radiative forcing, over a given time horizon, as an emitted amount of a greenhouse gas or a mixture of greenhouse gases. The equivalent carbon dioxide emission is obtained by multiplying the emission of a greenhouse gas by its global warming potential for the given time horizon (Intergovernmental Panel on Climate Change 2013).

[12] The U.S. GHG Emissions Inventory covers six GHGs; however, since this proposed action does not include refrigeration hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride were not included in the estimate of GHG emissions.

International Energy Agency. In 2011, global emissions were estimated to be 43,372.71 million metric tons of CO_2e and U.S. emissions were 6,550.10 million metric tons of CO_2e, (World Resources Institute 2014). In 2011, Ecology reported that Washington State was responsible for contributing 91.7 million metric tons of CO_2e, a decrease from the peak of 101.6 million metric tons in 2007 (Washington State Department of Ecology 2014a).

3.2.5 What are the potential impacts on air quality?

This section describes impacts on air quality that could occur in the study area. Potential impacts of the no-action alternative are described first, followed by potential impacts of the proposed action, including impacts on sensitive receptors.

3.2.5.1 No-Action Alternative

Under the no-action alternative, the applicant would continue to operate its existing facility as described in Chapter 2, Section 2.1.3.2, *Existing Operations*. Continued operation of the existing facility consistent with the terms of its current air quality permit and in compliance with Ecology's toxic air pollutant program is not anticipated to result in the exceedance of applicable air quality standards. Although the proposed action would not occur, it is assumed that growth in the region would continue under the no-action alternative. This growth could lead to development of another industrial use at the project site, which could result in impacts similar to those described for construction and routine operation of the proposed action. However, for the purposes of this analysis, it is assumed that no future development would occur at the project site.

3.2.5.2 Proposed Action

This section describes the impacts that could occur in the study area as a result of construction and routine operation of the proposed action. First, this section describes impacts from construction of the proposed action. It then describes impacts of routine operation at the project site and of routine rail and vessel transport to and from the project site.

Construction

As noted in Chapter 2, *Proposed Action and Alternatives*, construction would likely occur in two phases and would include the use of various types of construction equipment, such as heavy-duty trucks, welders, excavators, and backhoes. Use of this equipment would result in emissions of criteria air pollutants, toxic air pollutants, and GHGs.

Criteria Air Pollutants

The study area is in attainment for all criteria pollutants and therefore not subject to federal air quality regulations.[13] However, federal regulations provide emission *de minimis* levels[14] that can be used for evaluating emissions from the construction of the proposed action.

The estimated annual average construction-related emissions for Phase 1 and Phase 2 are well below the *de minimis* levels established by EPA, as provided in Appendix D, *Air Data*. Although

[13] General Conformity rules (40 CFR 93) only apply to areas considered in nonattainment or maintenance of federal and state ambient air quality standards.
[14] *De minimis* levels are emission levels below which no significant contamination of the air will occur.

emissions of criteria pollutants would occur, they would not be expected to cause a significant contamination of the air and are unlikely to affect sensitive receptors surrounding the project site.

Toxic Air Pollutants

Construction of the proposed action could result in emissions of toxic air pollutants, primarily associated with diesel particulate matter (DPM).

DPM[15] is a known human carcinogen and is linked to numerous health effects including:

- Lung inflammation
- Inflammation and irritation of the respiratory tract
- Eye, nose, and throat irritation along with coughing, labored breathing, chest tightness, and wheezing
- Decreased lung function
- Worsening of allergic reactions to inhaled allergens
- Asthma attacks and worsening of asthma symptoms
- Heart attack and stroke in people with existing heart disease
- Lung cancer and other forms of cancer
- Increased likelihood of respiratory infections
- Male infertility
- Birth defects
- Impaired lung growth in children

The construction-related emissions would be short-term and intermittent, with total DPM of less than 0.17 ton per year, which would be less than 0.2% of total 2011 DPM emissions for Grays Harbor County (9.5 tons per year) (Washington State Department of Ecology 2014a). Acute exposure may irritate the eyes, nose, throat, and lungs. All DPM emissions are associated with mobile sources and because of their relatively low release height, construction personnel could be subject to the highest exposures from construction of the proposed action. Offsite exposure at air quality sensitive receptors would likely be well below any level of concern because of the relatively short-term construction period and intermittent operation of the construction equipment.

Greenhouse Gas Emissions

Construction would generate the following GHG emissions.

- Phase 1: 704 metric tons CO_2e
- Phase 2: 183 metric tons CO_2e.

[15] The PM10 emissions from any diesel-fueled equipment are considered. Here the vast majority of construction equipment was considered as diesel fueled.

Operations

This section describes impacts that would occur as a result of routine operations at the project site, rail transport along the PS&P rail line, and vessel transport through Grays Harbor.

Criteria Air Pollutants

Onsite

Onsite emissions include those from stationary sources (e.g., emissions from storage tank cleaning, combustion of vapors from vessel loading) and from mobile sources (e.g., emissions from rail locomotives and vessel engines that would occur onsite). Appendix D, *Air Data*, provides the estimated annual average emissions of criteria air pollutants from operations of the proposed action at maximum throughput. Table 3.2-6 provides a summary of estimated annual average emissions of criteria air pollutants emitted onsite; detailed emissions data are provided in Appendix D, *Air Data*.

Table 3.2-6. Estimated Onsite Emissions of Criteria Air Pollutants—Proposed Action (pounds per year)

Pollutant	Emissions from Stationary Sources	Total Emissions (Stationary and Mobile Sources)
NO_X	4,934	17,514
PM10	499	742
PM2.5	499	726
VOC	71,677	72,145
CO	11,985	13,340
SO_2	33	330

Source: Appendix D, *Air Data.*

NO_X = nitrogen oxides; PM10 = particulate matter with a diameter of 10 micrometers or less; PM2.5 = particulate matter with a diameter of 2.5 micrometers or less; VOC = volatile organic compound; CO = carbon monoxide; SO_2 = sulfur dioxide

Based on air quality dispersion modeling performed for onsite stationary sources as part of the applicant's air permit application process (Trinity Consultants 2015), the most potentially problematic air pollutant is nitrogen oxides (NO_X). Accounting for the additional NOx emissions from onsite operation of rail locomotives and tank vessels, total estimated emissions from onsite source could reach 81 $\mu g/m^3$. Considering background concentrations, the 1-hour nitrogen dioxide concentration could reach nearly 81% of the national ambient air quality standards (NAAQS). This estimate was conservatively reached by adding the simultaneous occurrence of emissions associated with bringing rail cars on site and vessel operation during loading. Further, it was assumed that 80% of the NO_X was emitted as nitrogen dioxide concentrations and that the highest NO_X emissions from the rail and vessel operations would be received at the same location as the highest NO_X emissions modeled for the stationary sources. Even under these conservative assumptions, the 1-hour nitrogen dioxide concentrations on site would not exceed the NAAQS.

Average annual emissions of criteria air pollutants from onsite operations of stationary sources under the proposed action at maximum throughput were also compared to total 2011 emissions in Grays Harbor County (Appendix D, *Air Data*). The following are stationary sources.

- Fugitive emissions (emissions from losses during filling and draining)
- Storage tanks (leaks from valves and flanges)

- Tank cleaning
- Marine vapor combustion unit (vessel loading emissions)

For each of the criteria air pollutants, the onsite stationary emissions would range from less than 1 to 26% of the county total emissions for each pollutant. The maximum incremental increase is for volatile organic compound emissions.

Rail

Operation of the proposed action at maximum throughput would add 458 unit train trips[16] per year (1.25 trips per day on average) along the PS&P rail line to the approximately 1,100 train trips per year (three train trips per day on average) under the no-action alternative (Section 3.15, *Rail Traffic*). This increase in rail traffic would result in increased emissions of all criteria air pollutants. The most notable increase is predicted for NO_X. Table 3.2-7 summarizes the annual operational emissions of criteria pollutants emitted within Grays Harbor County under the proposed action compared to Grays Harbor County emissions. Total additional annual NO_X emissions from rail within Gray Harbor County are predicted to be 14.9 tons per year, followed by carbon monoxide emissions at 3.5 ton per year, with all other predicted emissions less than1 ton per year.

Table 3.2-7. Annual Operations Emissions of Criteria Air Pollutants emitted in Gray Harbor County—Proposed Action Compared to 2011 Gray Harbor County Emissions (tons per year)

		Source Categories[a]					
Criteria Air Pollutant	**Sources**	**Facility Operations[b]**	**Rail [c,d]**	**Vessel[d]**	**On-Road Mobile**	**Other Sources**	**Total Emissions**
NO_X	Proposed Action	2.5	14.9	44.0	0.1	-	**61.5**
	Grays Harbor County	643.7	41.4	297.9	2,224.3	484.2	**3,691.5**
PM10	Proposed Action	0.25	0.4	0.6	<0.01	-	**1.3**
	Grays Harbor County	410.2	1.0	9.9	82.5	1,681.4	**2,185.0**
PM2.5	Proposed Action	0.25	0.4	0.6	0.0	-	**1.3**
	Grays Harbor County	375.0	0.9	9.5	66.0	722.8	**1,174.2**
VOC	Proposed Action	35.8	0.6	1.8	0.0	-	**38.2**
	Grays Harbor County	140.7	1.6	7.8	1,138.6	19,451.3	**20,740.1**
CO	Proposed Action	6.0	3.5	2.7	0.2	-	**12.4**
	Grays Harbor County	730.8	4.1	55.8	13,786.3	12,562.9	**27,139.9**
SO_X	Proposed Action	0.02	0.0	0.9	<0.01	-	**0.9**
	Grays Harbor County	227.7	0.3	14.7	7.1	21.5	**271.3**

Sources: Grays Harbor County emissions: Washington State Department of Ecology 2014a; proposed action facility operations emissions: Trinity Consultants 2015.

[a] Source categories based on Washington State Department of Ecology 2014a.

[b] The proposed action onsite emissions include only those from stationary sources. The county emissions represent those from all industrial stationary sources.

[16] A trip represents one-way travel; in other words, an inbound trip and an outbound trip are counted as two trips.

[c] Based on estimate that 68% of the fuel consumption from rail transit along the PS&P occurs within Grays Harbor County.
[d] Rail and vessel emissions for the proposed action include emissions from on-site rail and vessel operations.
CO = carbon monoxide; NO_X = nitrogen oxides; SO_X = sulfur oxides; VOC = volatile organic compound; PM10 = particulate matter with a diameter of 10 micrometers or less; PM2.5 = particulate matter with a diameter of 2.5 micrometers or less

Emissions of criteria pollutants from rail traffic related to the proposed action would increase carbon monoxide emissions by 85%, while most of the other criteria pollutants would increase by 45% or less, relative to the existing levels for the County's inventory associated with rail activity. However, rail emissions are mobile and would be spread out along the 59-mile PS&P rail line, making it unlikely that a localized concentration of emissions would occur that could exceed the 1-hour standard with the exception of NO_X.

As noted previously, the predicted NO_X rail emissions associated with the proposed action would represent the highest level of emissions and are substantially greater than the other criteria pollutants. The initial screening modeling shows that the 1-hour nitrogen dioxide standard could be exceeded. For these reasons, NO_X emissions are considered the primary criteria air pollutant of concern. In other words, it is the criteria air pollutant most likely to exceed the NAAQS. However, because no violation of the nitrogen dioxide NAAQS is anticipated at the project site based on the air quality modeling, emissions from locomotives during transit are not expected to violate air quality standards. This is because rail emissions would be emitted across the entire 59-mile PS&P rail line, making it unlikely that a localized concentration of emissions would exceed the 1-hour standard. Additionally, total NO_X emissions attributed to the proposed action, including increased vessel traffic emissions, would represent less than 2% of the county's total NO_X inventory.

Vessel

Operation of the proposed action at maximum throughput would add 238 tank vessel trips per year (0.7 trip per day on average) along the navigation channel to the projected large commercial vessel[17] trips in 2017 and 2037, respectively, or approximately one trip per day on average, under the no-action alternative (Section 3.17, *Vessel Traffic*).

NO_X emissions from vessel operations would be 44.0 tons per year, followed by carbon monoxide emissions at 2.7 tons per year (Table 3.2-7). All other predicted emissions would be less than 2.0 tons per year (Table 3.2-7). In general, emissions of criteria air pollutants related to increased vessel traffic would increase the existing levels of the county's vessel-related emissions between 5 and 23%.

Because predicted vessel NO_X emissions would be approximately 15 to 70 times greater than the other criteria air pollutants, and because initial air quality screening modeling shows a possible exceedance of the 1-hour nitrogen dioxide standard, NO_X emissions are considered the primary criteria air pollutant of concern. In other words, it is the criteria air pollutant most likely to exceed the NAAQS. However, because no violation of the NAAQS is anticipated at the project site based on air quality modeling, even under the conservative conditions described above, it is not anticipated that emissions from vessels during transit would violate air quality standards. This is because vessel emissions would be emitted away from shore and would spread out over the navigation channel, making it unlikely that a localized concentration of emissions would occur that could exceed the

[17] The term *large commercial vessel* refers collectively to tank and cargo vessels.

1-hour standard. Additionally, total NO_X emissions attributed to the proposed action, including increased vessel traffic emissions, would represent less than 2% of the county's total NO_X inventory.

Toxic Air Pollutants

Onsite

Onsite operations of the proposed action would also result in emissions of toxic air pollutants (DPM, PM10, benzene, formaldehyde, and toluene) and air toxics (includes all hazardous air pollutants as well as hydrogen sulfide, sulfuric acid mist, n-hexane, cyclohexane, nitrogen dioxide, sulfur dioxide, and carbon monoxide). Potential impacts from onsite sources, with the exception of DPM, were assessed using the methods outlined in the WAC 173-460-020 (Controls for New Sources of Toxic Pollutants).

In Washington State, all new stationary sources emitting toxic air pollutants are required to show compliance with the Washington toxic air pollutant program pursuant to WAC 173-460. Ecology has established a small quantity emission rate (SQER) and an ASIL for each listed toxic air pollutant. If the toxic air pollutant emissions rate from a source is above its respective small quantity emission rate, further determination of compliance with the ASIL is required.

All of the toxic air pollutants emitted from onsite stationary source operations would be either under their respective SQER or in compliance with their respective ASIL. Of the three toxic air pollutants that are above their SQERs—hydrogen sulfide, benzene, and nitrogen dioxide—all are within their ASILs. The highest is hydrogen sulfide at 75.63%, followed by benzene at 56.35% and nitrogen dioxide at 3.73% ASILs.

The impacts of DPM emissions from rail car unloading at the project site are described below.

Rail

The dominant air toxic emissions (both a hazardous and toxic air pollutant) from rail transport are DPM emissions from the burning of diesel fuel. Air dispersion modeling of DPM was conducted using EPA's AERMOD[18] dispersion model for the proposed action's rail activities between Poynor Yard and the project site. This area would have the highest emissions along the PS&P rail line from rail switching and unloading activities, as described in Section 3.15, *Rail Traffic*. Rail switching and unloading activities were modeled using 5 years (2007 to 2011) of Hoquiam area meteorological data, and a 5-year average annual DPM cancer risk was determined. Total emissions of DPM were estimated at 0.03 ton per year.

Figures 3.2-1 and 3.2-2 show the average increased inhalation cancer risk from DPM for the proposed action in 2017 and 2037[19] by illustrating the 10 per million and 1 per million risk levels. The air quality sensitive receptors within these risk levels are also shown. Under WAC 173-460 (Controls of New Sources of Toxic Air Pollutants), Ecology may recommend approval for a stationary source project likely to cause an exceedance of ASILs for one or more toxic air pollutants if the increase of toxic air pollutant emissions (such as DPM) would not likely increase cancer risk to more

[18] AERMOD is a dispersion model recommended by EPA for estimating the impact of industrial sources of emissions on ambient air quality.
[19] Years 2017 and 2037 were modeled to assess the risk from DPM emissions over time because locomotives that emit less DPM than in 2017 will be in operation by 2037.

than 10 in 1 million. However, this regulation applies to stationary sources, not mobile sources such as rail locomotives. There are no local or state regulations for DPM emissions from mobile sources. For this reason, the 10-per-million increase risk level is not a threshold to determine significance of the impact. However, to provide context of the average increased inhalation cancer risk from DPM, the 10-per-million increase risk level is shown in Figures 3.2-1.[20] The 1-per-million risk level is also shown in Figures 3.2-1 and 3.2-2. This is the screening level for acceptable increased risk for DPM.

The analysis indicates that the 10-per-million and above risk level from rail operations would be limited to the project site in 2017 and be below that level at all locations in 2037. The 1-per-million risk level from rail operations would extend up to approximately 0.5 mile from the project site in 2017 and approximately 0.1 mile from the project site in 2037. The West End Playfield, a sensitive receptor, would be just within the 1-per-million risk level in 2017. Some residential land uses north of the project site would be also within the 1-per-million increase risk level in 2017. By 2037 no sensitive receptors would be within the 1-per-million-risk level. As shown in Figures 3.2-1 and 3.2-2, the increase inhalation risk from DPM action above 1 per million from rail operations at Poynor Yard would extend to approximately 0.2 mile (1,000 feet) from the PS&P rail line at Poynor Yard in 2017 and to 150 feet from the rail line in 2037.

DPM emissions from rail transport along the PS&P rail line in the initial year of full operation (2017) are estimated at 2,353 pounds per year. Based on the length of the PS&P rail line (59 miles between Centralia and project site), this represents approximately 48 grams of DPM per day per mile.

Washington State Department of Transportation prepares yearly summaries of annual average daily traffic volume and percentage of heavy-duty truck traffic on state and federal highways. According to the most recent summary of 2013 traffic data, traffic along US Highway 12 (US 12) (approximately 12.3 miles east of its junction with US Highway 101 [US 101]) had an average heavy-duty daily truck activity level of 1,900 vehicles (Washington State Department of Transportation 2013). These types of trucks are almost entirely diesel fueled. Assuming these are all diesel fueled and using the fleet average DPM emission factor from the EPA MOVES 2010 model for heavy-duty trucks results in an average daily DPM emission rate of 760 grams per mile. Based on a comparison of the predicted fuel usage of trains related to the proposed action, the increase in DPM associated with rail transport along the PS&P rail line under the proposed action would be the equivalent of a 3.5% increase in heavy-duty truck traffic or about the equivalent of 67 heavy-duty trucks per day. This increase in emissions from rail transport between Aberdeen and Centralia is not expected to result in a significant increase in DPM exposure for any sensitive receptors along the PS&P rail line or to the public.

[20] The 10-per-million risk increase level would be shown in Figure 3.2-2 but the increase risk was below that level for all receptors.

Figure 3.2-1. Average Diesel Particulate Matter Inhalation Risk (2017)

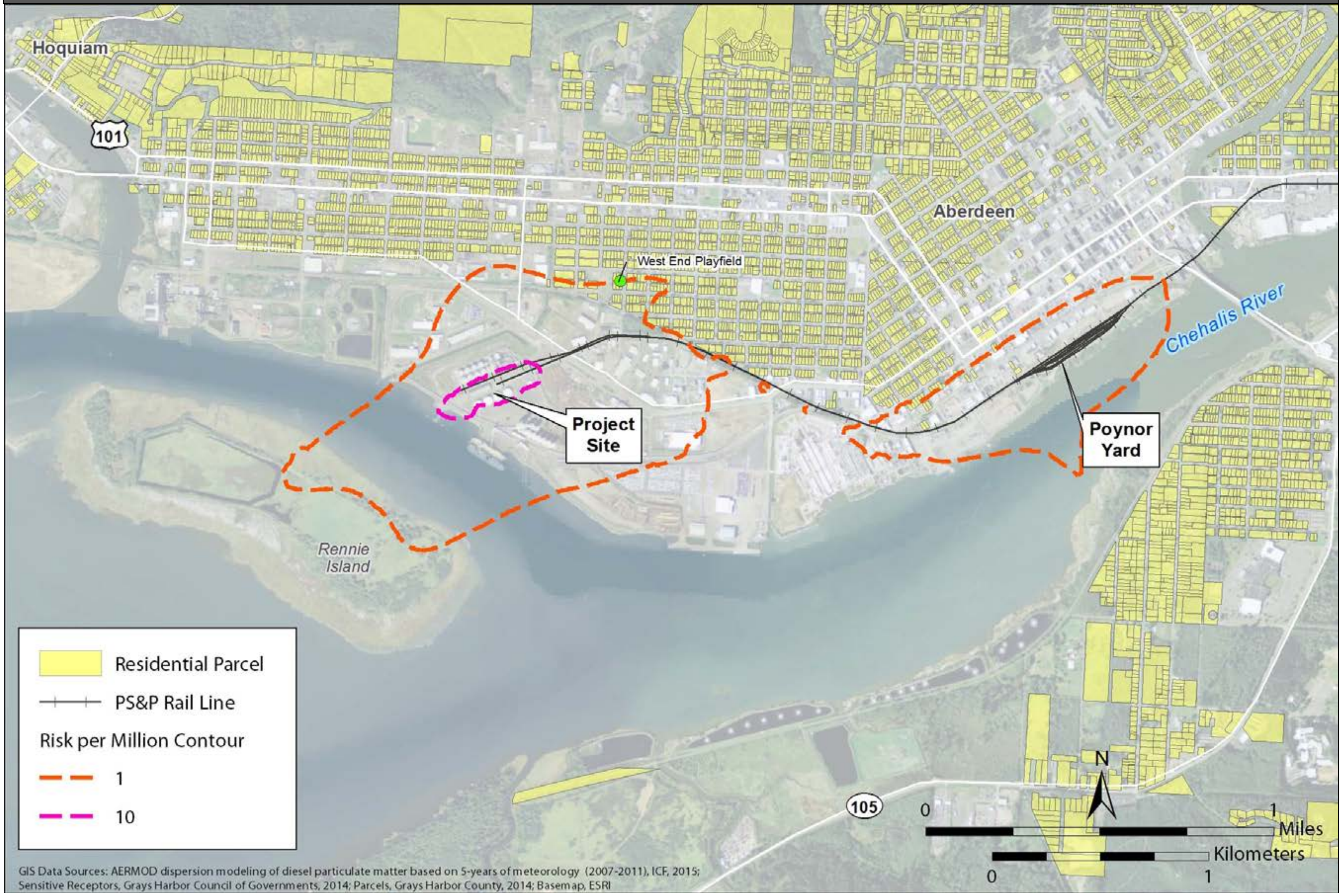
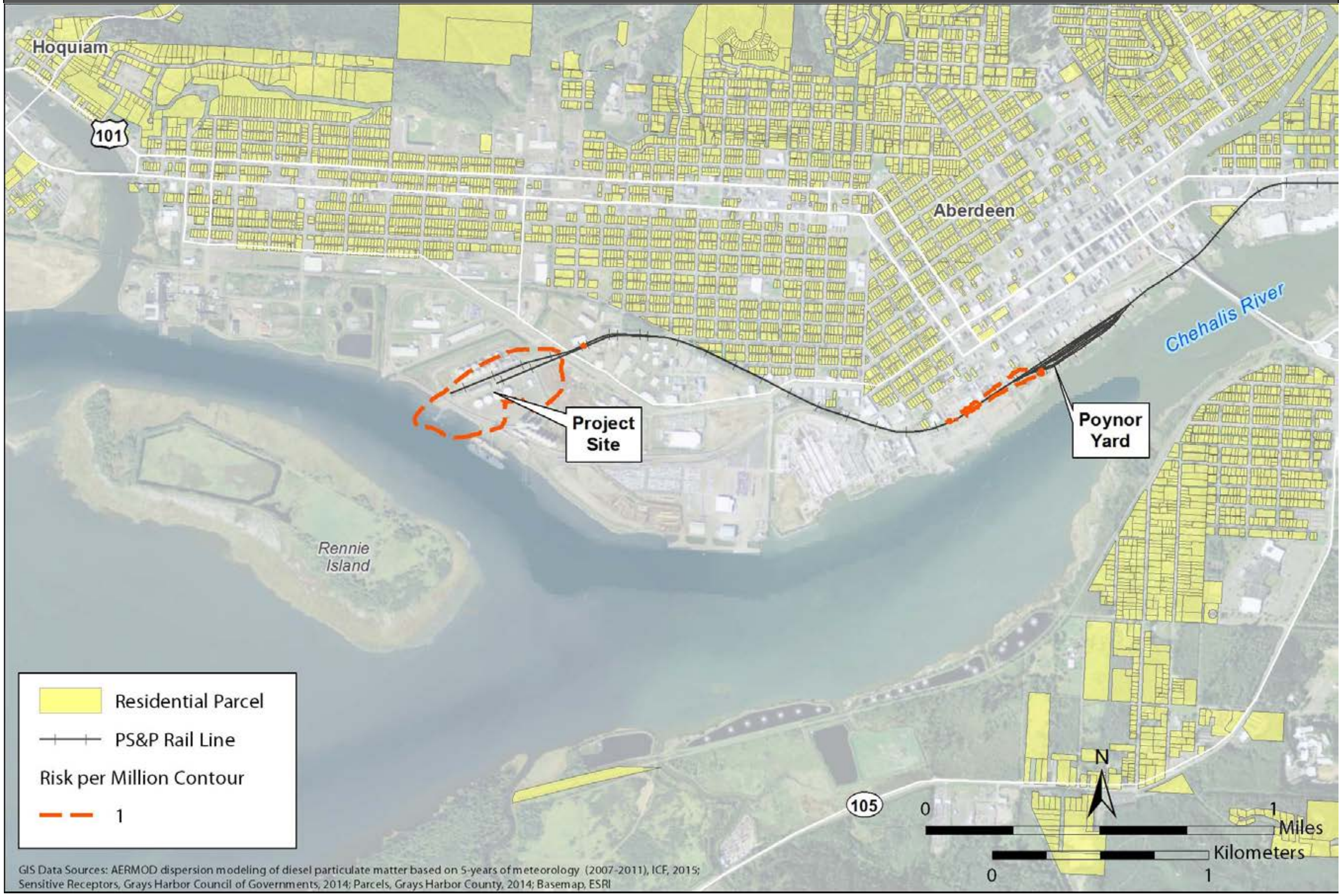


Figure 3.2-2. Average Diesel Particulate Matter Inhalation Risk (2037)



Vessel

Under the proposed action, tank vessels calling at Terminal 1 would include tank barges and tankers. These tank vessels typically burn marine distillate fuel oil, which is a slightly heavier fuel oil than diesel but shares most of the same chemical properties and composition. Assuming the same cancer risk for marine distillate fuel oil as diesel fuel oil to approximate the air toxic health risk from vessel transport in the study area, the dominant air toxic emission (both a hazardous and toxic air pollutant) would be DPM.

In a recent study examining the impact of these emissions during vessel transit, nearshore cancer risks of about 100 in 1 million were determined within a distance of 1.1 miles of the shipping corridor (California Air Resources Board 2008: Figure D-25). This result was based on 1,916 vessels calling per year, with most ships weighing between 40,000 and 80,000 dead weight tons and traveling at a speed of 13.5 knots. Under the proposed action, up to 119 vessels per year, mostly the smaller tank barges (20,000 dead weight tons) assisted by pilot boats and a tug, would call at Terminal 1. The emissions from the pilot boat and assist tug are about 30% of the emissions of the tank barges. Conservatively, assuming that the emissions from the tank barges are roughly equivalent to the larger vessels in the California Air Resources Board study, the estimated projected transit activity would be equivalent to 155 tank barges. Thus, the estimated increase in nearshore risk across the inlet to Grays Harbor would be less than eight in a million, likely less given the wider inlet and smaller vessels and engines. This increase in risk is less than the Ecology acceptable threshold increase in cancer risk and, therefore, considered a negligible impact on sensitive receptors along the shoreline of Grays Harbor.

Greenhouse Gas Emissions

Emission of GHGs would result from onsite operation of the proposed action. Other sources of GHG emissions that could be attributable to the proposed action are the extraction of crude oil, transport of the crude oil to and from the project site, and end use of the crude oil (e.g., combustion). These sources of GHG emissions are discussed below.

Crude Oil Production

Crude oil production (drilling) results in the emission of GHGs. If the proposed action were to induce production of crude oil, GHGs gas emissions for this activity could be deemed attributable to the proposed action. Based on the analysis presented in Appendix Q, *Crude Oil Market Analysis,* the proposed action would not likely induce oil production. Therefore, GHG emissions related to extraction activities are not quantified.

Onsite Operations and Offsite Transport

Onsite operation of the proposed action at maximum throughput would result in the emission of approximately 5,736 metric tons of CO_2e each year (Table 3.2-8). This includes emissions from operation of the marine vapor combustion unit, onsite rail switching operations, and vessels at the dock during loading.

Rail and vessel transportation would also result in GHG emissions. Based on the analysis presented in Appendix Q, *Crude Oil Market Analysis,* crude oil transloaded at the proposed facility is expected to be shipped to West Coast refineries. It is anticipated that much of this crude oil would replace crude oil that was previously transported to these refineries by other means. The Washington 2014

Marine & Rail Oil Transportation Study stated the following (Washington State Department of Ecology 2014b):

> …historically, 90% of crude oil bound for Washington's refineries was delivered here by tank ship from Alaska or from other international sources of oil. Today pipeline and rail delivery of crude oil make up more than 30% of our imports, while vessel delivery is reduced to less than 70%. Crude oil transportation is rapidly shifting to delivery by rail and pipeline.

Table 3.2-8 presents estimates of GHG emissions from rail transport from the likely source, Williston Basin,[21] and vessel transport to the farthest likely destination, Port of Long Beach, California.[22] Table 3.2-9 presents estimates of GHG emissions from transport of Alaska North Slope crude oil, which is expected to be offset by any crude oil transloaded under the proposed action. The emission estimates from transport of Alaskan crude do not include emissions related to loading and movement of crude oil from the North Slope to Valdez; therefore, they are understated and conservative for the purposes of calculating offset emissions. If crude oil transloaded through the proposed facility were to be transported to California refineries, it could replace crude oil from international sources, which would have higher relative GHG emissions due to distance.

Statewide GHG emissions from onsite operations and offsite transport within the state would be 32,868 metric tons of CO_2e per year (Table 3.2-8). The largest contribution of statewide operations GHG emissions under the proposed action would result from rail transport and would represent an approximately 2.7% increase in 2011 statewide rail GHG emissions (1 million metric tons of CO_2e per year). However, between 2017 and 2037, improvements in the efficiency of locomotives may decrease the total GHG emissions resulting from the proposed action.

Appendix D, *Air Data*, provides a more detailed comparison of average annual statewide GHG emissions and emissions from proposed operations.

Table 3.2-8. Annual Average GHG Emissions from Operations—Proposed Action (metric tons of CO_2e per year)

Source Type	Proposed Action
Rail transit (Washington State)	26,593[a]
Rail transit (outside Washington State)	51,219[b]
Rail switching (onsite)	1,580
Vessel transit (Washington State)	539
Vessel transit (outside Washington State)[c]	39,161
Vessel at dock during loading (onsite)	104
Industrial sources (onsite)	4,052[d]
Total	123,248

[a] Includes emissions from offsite rail transport within Washington State.
[b] Includes emissions from rail transport from the Washington State border to Enbridge, North Dakota.
[c] Includes emissions from vessel transport via from 3 nautical miles of the Washington coast to the Port of Long Beach, California.
[d] Trinity Consultants 2015.

[21] Enbridge, North Dakota, was used as the source point.

[22] Refer to Appendix Q, *Crude Oil Market Analysis,* for a discussion of why West Coast refineries are considered the most likely destination of crude oil transloaded through the proposed facility, despite the lifting of the ban on exports of U.S. crude oil.

Table 3.2-9. Estimated Annual Greenhouse Gas Emissions Related to Offset Vessel Transport of Alaskan Crude Oil (metric tons of CO_2e per year)

Source	Emissions
Vessel transit[a]	47,049

[a] Assumes 17 Suezmax vessels (195,000 deadweight tons). Loaded vessels from Valdez, Alaska, to Long Beach, California, and returning empty. Does not include emissions from loaded and movement of crude oil from North Slope to Valdez, Alaska.

These statewide GHG emissions represent approximately 0.036% of 2011 statewide GHG emissions.[23]

RCW 70.235.020 sets the following GHG statutory reduction levels for GHG emissions.

- By 2020, reductions to 1990 emission levels.
- By 2035, reductions to 25% below 1990 levels.
- By 2050, reductions to 50% below 1990 levels or 70% below Washington State's expected emissions that year.

In order to meet these reductions, Washington State must reduce emissions to 88.4 million metric tons of CO_2e per year by 2020, 66.3 million metric tons of CO_2e by 2035 and approximately 44.2 million metric tons of CO_2e by 2050.[24] Statewide GHG emissions from the proposed action—32,868 metric tons of CO_2e per year from onsite operations and offsite transport within the state—would be approximately 0.07% of Washington State's statutory reduction of 44.2 million metric tons of CO_2e per year (half of the 1990 level) by 2050.

Adding emissions from rail and vessel transport beyond Washington State (rail transport from the Williston Basin, North Dakota, to the state line, and vessel transport from state waters to Long Beach, California) would result in an additional 90,380 metric tons of CO_2e per year (Table 3.2-8). Combining GHG emissions from onsite operations and from offsite transport of maximum throughput from crude oil source to refinery totals 123,248 metric tons of CO_2e per year. Considering offset emissions of 47,049 metric tons of CO_2e per year related to Alaskan crude oil, estimated net GHG emissions would be 76,199 metric tons of CO_2e per year.

In November 2014, the United States entered into a nonbinding agreement with China to reduce emissions to 26 to 28% below 2005 levels (White House 2014). This national goal translates to annual emissions between 4,628 and 4,756 million metric tons of CO_2e by 2025. The estimated average annual net GHG emissions related to the proposed action represent approximately 0.002% of these national targets.

According to the Intergovernmental Panel on Climate Change (IPCC), cumulative GHG emissions should be limited to 1 trillion metric tons (total) by 2050 or the planet will exceed the 2°C warming threshold. Currently, the amount of GHGs that have been emitted worldwide since the Industrial Age is estimated to be 592 billion metric tons (Oxford E-Research Center 2015). Cumulative world emissions should be limited to 408 billion metric tons to meet the 2050 target. The estimated

[23] 2011 statewide GHG emissions from stationary industrial sources and rail and vessel transport were 91.7 million metric tons of CO_2e per year.
[24] Total emissions needed to reach the Washington State statutory reductions were calculated based on the required reduction from the statewide inventory of 91.7 million metric tons of CO_2e in 2011 (Washington State Department of Ecology 2014a).

average annual net GHG emissions related to the proposed action represent approximately 0.00002% of this limit.

Combustion

In addition to GHG emissions from onsite operations and offsite rail and vessel transport, the combustion of crude oil would result in GHG emissions. To the extent that crude oil transloaded through the proposed facility would replace oil shipped to West Coast refineries by other means and from other sources (e.g., Alaska or international ports), combustion emissions would not be entirely additive. Crude oil may be refined into multiple other products that may or may not have substantial GHG emissions (e.g., asphalt is not combusted and is a crude oil product) and the end use would vary based on the product and market. Because crude oil can be broken down into a variety of products and their end use varies, the end-use combustion calculation, which assumes that all of the oil will be combusted, is conservative and likely overstates total GHG emissions. For purposes of disclosure, GHG emissions from the combustion of the maximum throughput of crude oil per year under the proposed action are quantified using the emissions factors presented in Table 3.2-10.

Using EPA's average heat content of crude oil of 5.80 million British thermal units (mmBtu) per barrel (U.S. Environmental Protection Agency 2014) and the more conservative emissions factor for diluted bitumen listed in Table 3.2-10, the maximum CO_2 emissions from end use of products shipped through the proposed facility in a given year would be 7.8 million metric tons of CO_2 per year.

Table 3.2-10. Estimated CO_2 Emissions Factors for Crude Oil Combustion

Product	CO_2 Emissions Factors (kg CO_2 per mmBtu)
Bakken crude oil	73.96
Diluted bitumen	75.10

Source: U.S. Environmental Protection Agency 2014.
kg CO_2 per mmBtu = kilograms of carbon dioxide per million British thermal unit.

Regardless of the end-use emissions scenario, the proposed action would represent a very small segment of the crude oil market in the United States. The U.S. Energy Information Administration provides data for U.S. petroleum flows (U.S. Energy Administration 2013, 2015). In 2013, 7.45 million barrels of crude oil were produced in the United States, and 7.72 million barrels of crude oil were imported every day. Together, this equals 15.17 million barrels of crude oil supplied to the United States every day. Based on maximum throughput, operation of the proposed action would transport approximately 49,041 barrels per day on average 0.32% of the U.S. daily crude oil supply.

For information on cumulative GHG emissions and climate change, see Chapter 6, *Cumulative Impacts*.

Odor

The only compound with sufficient emissions to have the potential to have a perceptible odor is hydrogen sulfide. As reported in Appendix D, *Air Data*, Table 5, emissions for this compound are estimated at 79 pounds per year. As described under *Toxic Air Pollutants,* air quality modeling for hydrogen sulfide conducted by the applicant showed the maximum offsite 24-hour concentration at 1.51 $\mu g/m^3$. This was compared against its ASIL of 2 $\mu g/m^3$ per 24-hour averaging period. The lowest level of odor threshold for the most sensitive individual is 14 $\mu g/m^3$ (10 parts per billion).

Although it is possible that, at the right location and operational and meteorological conditions, the odor could be detectable for a brief period, the short-term concentration (less than 1 hour) is expected to be below the odor threshold for the most sensitive individual. Therefore, odor is considered a negligible impact.

3.2.6 What required permits and plans apply to air quality?

The proposed action is subject to compliance with an air permit issued by the Olympic Region Clean Air Agency, which would include enforceable requirements specifying emission limits, reporting, and record keeping requirements for onsite stationary sources. Air emissions would be controlled using best available control technology as required by the agency as part of the proposed action's Notice of Construction Air Permit. The following permit conditions are expected to reduce impacts on air quality.

- To reduce the potential for fugitive emissions associated with rail transport during site operations, the applicant will ensure via contract that rail cars are equipped with vacuum breakers designed to prevent escape of vapors from headspace of rail cars during unloading operations.
- To reduce the potential for tank emissions, the applicant will design tanks to reduce tank emissions using the following method.
  - Storage tanks with internal floating roofs and both primary and secondary seals based on applicable requirements.
- To reduce the potential for site operations emissions, the applicant will undertake the following actions.
  - Control displaced vapors during loading of marine vessels and barges with a marine vapor combustion unit having a minimum of 98% destruction efficiency. The applicant proposes a marine vapor combustion unit equipped with a vapor blowing staging unit that would increase capture efficiency to approximately 100% to control emissions from marine loading.
  - Implement good operating practices for fugitive equipment leaks.

3.2.7 What mitigation measures would reduce impacts on air quality?

This section describes the applicant mitigation measures that would reduce impacts on air quality from construction and routine operation of the proposed action.

3.2.7.1 Applicant Mitigation

The applicant will implement the following mitigation.

- The applicant will ensure that all engine-powered equipment and vehicles used in construction, operation, and maintenance at the facility are subject to a regular inspection and maintenance schedule in order to minimize air pollutant emissions, GHG emissions, and fuel consumption. Preventive maintenance activities will include but not be limited to the following actions.
  - Replacing oil and oil filters as recommended by manufacturer instructions.

  - Maintaining proper tire pressure in on-road vehicles.
  - Replacing of worn or end-of-life parts.
  - Scheduling routine equipment service checks.
- The applicant will develop and implement an anti-idling policy for both construction and operation and ensure that equipment operators receive training on best practices for reducing fuel consumption in order to reduce project-related GHG emissions. The anti-idling policy will include required warmup periods for equipment and prohibit idling beyond these periods. The policy will define any exemptions where idling is permitted for safety or operational reasons, such as when ambient temperatures are below levels required for reliable operation. In addition, the use of technologies such as idle management systems or automatic shutdown features will be considered part of the policy.
- To minimize idling from trains and vessels and resulting emissions, the applicant will coordinate with the Port of Grays Harbor and PS&P to manage waiting times for rail and vessel arrivals or departures.

3.2.8 Would the proposed action have unavoidable and significant adverse impacts on air quality?

Compliance with the applicable regulations along with implementation of the mitigation measures described above would reduce impacts on air quality. There would be no unavoidable and significant adverse impacts.