Chapter 3
Affected Environment, Impacts, and Mitigation

3.0 Introduction

This chapter describes existing conditions in the study area, presents the environmental impacts that would likely result from construction and routine operation[1] of the proposed action, and identifies measures to mitigate those impacts. For comparison purposes, the consequences of the no-action alternative are also discussed.

3.0.1 What topics are addressed in the impact analysis?

This chapter is divided into the following 17 sections, with each section addressing one element of the built or natural environment.

- 3.1 Earth
- 3.2 Air
- 3.3 Water
- 3.4 Plants
- 3.5 Animals
- 3.6 Energy and Natural Resources
- 3.7 Noise and Vibration
- 3.8 Land and Shoreline Use
- 3.9 Aesthetics, Light, and Glare
- 3.10 Recreation
- 3.11 Historic and Cultural Preservation
- 3.12 Tribal Resources
- 3.13 Public Services and Utilities
- 3.14 Hazardous Materials
- 3.15 Rail Traffic
- 3.16 Vehicle Traffic and Safety
- 3.17 Vessel Traffic

3.0.2 How is each resource section organized?

Each section answers the following questions.

[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).

- What is the study area for the resource?
- What laws and regulations apply to the resource?
- How were impacts on the resource evaluated?
- What are the types and condition of the resource in the study area?
- What are the potential impacts on the resource?
- What mitigation measures would reduce impacts on the resource?
- Would the proposed action have unavoidable and significant adverse impacts on the resource?

3.0.3 What alternatives are analyzed in this chapter?

This chapter presents an analysis of impacts that could occur as a result of construction and routine operation of the proposed action. Where impacts were quantitatively evaluated, potential impacts are considered in 2017—the anticipated first year of operation—and in 2037 to account for future growth and development. This approach provides context to decision-makers about how the impacts of operations would evolve over a reasonably foreseeable period. This is particularly relevant for transportation- and risk-related impacts that can evolve over time because of reasonably foreseeable increased growth, planned infrastructure changes, and phased regulatory requirements for improved transportation efficiency and safety. The impacts identified in these years would apply for the lifetime of the proposed action and proposed mitigation measures are intended to apply for the lifetime of the proposed action.

This chapter also presents an analysis of impacts that could occur if the proposed action were not approved (the no-action alternative). Where impacts were quantitatively evaluated, the analysis of the no-action alternative also considers impacts in 2017 and 2037 and includes impacts associated with future growth and development that is reasonably certain to occur during this timeframe, regardless of the proposed action. Impacts of the no-action alternative are presented first as a basis of comparison.

3.0.4 What areas and activities were analyzed?

The study area is specific to each resource but in most cases includes resources on and near the project site that could be affected by construction and onsite operations, resources along the Puget Sound & Pacific Railroad (PS&P) rail line—from Centralia, Washington, to the project site—that could be affected by rail transport, and resources in and around Grays Harbor that could be affected by vessel transport.

The project site includes the property leased by Westway Terminal Company LLC (applicant) on which the existing and proposed facilities are and would be located. Activities at the project site would include construction (e.g., site clearing and erecting storage tanks) and operations (e.g., rail unloading and vessel loading) that would be directly under the control of the applicant. These activities would be subject to the permit conditions that would be required by the City of Hoquiam, the Washington State Department of Ecology (Ecology), and other state and local agencies.

Transport of bulk liquids to and from the project site by rail and vessel would occur under the responsibility of the rail and vessel operators, respectively. Although the applicant does not have control over offsite transport, implementation of the proposed action would generate rail and vessel

trips that could result in environmental impacts along the transportation corridors. For example, increased rail and vessel trips could lead to congestion and related traffic delays, increased noise, and increased air emissions. The transportation corridors that would be affected by offsite transport would vary depending on the source of the crude oil and the final destination. However, all rail trips generated by the proposed action would occur along the PS&P rail line between Centralia and the project site, because this is the only rail line connecting the national mainline railroad system to the Port of Grays Harbor. Similarly, all vessel trips generated by the proposed action would travel through Grays Harbor from Terminal 1 to the Pacific Ocean. Therefore, these known corridors are the focus of the impact analysis related to offsite transport in this chapter.

3.0.5 How was mitigation identified?

Development of the mitigation measures included an evaluation of whether applicable regulations, specific permit conditions, and the required plans would adequately reduce potentially significant impacts identified in this draft environmental impact statement (Draft EIS). Additionally, when applicable, the Draft EIS considered the incorporation of specific voluntary measures or design features to be executed by the applicant and how those measures would reduce potential impacts. When those combined measures did not sufficiently reduce the risk of impacts, additional applicant measures were identified as required by the Washington State Environmental Policy Act (SEPA) consistent with Washington Administrative Code [WAC] 197-11-660. The thresholds and measures were developed based on direction and guidance from the co-lead agencies. Potential measures were identified and evaluated even if they were not under the jurisdiction of the deciding co-lead agencies, in this case, the City of Hoquiam and Ecology.

3.0.6 What impacts are addressed in other chapters of the Draft EIS?

The analysis in this chapter focuses on impacts associated with construction and routine operation of the proposed action in the study area. The following chapters present additional impacts.

Chapter 4, *Environmental Health and Safety*, looks at the potential for increased safety risks under the proposed action. Specifically, onsite operation activities (e.g., rail unloading, tank storage, and vessel loading) and the increased frequency of rail and vessel trips could increase the likelihood of an incident (e.g., storage tank rupture, train derailment, or vessel collision) and result in adverse environmental outcomes (e.g., release of crude oil). Although the specific impacts would depend on the frequency, location, contents, and volume of a spill, as well as the efforts to contain and clean up the spill, the potential impacts on the human and natural environment could be far-reaching.

Chapter 5, *Extended Rail and Vessel Transport*, addresses impacts related to rail and vessel transportation in the extended study area from the source of the crude oil to its final point of delivery.

Chapter 6, *Cumulative Impacts*, addresses the impacts of the proposed action when considered in combination with all other past, present, and reasonably foreseeable future projects.

Chapter 7, *Economics, Social Policy, and Cost-Benefit Analysis*, addresses economics, social policy, and the costs and benefits related to the proposed action.