

**BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL**

In the Matter of:
Application No. 2013-01

TESORO SAVAGE, LLC

VANCOUVER ENERGY
DISTRIBUTION TERMINAL

APPLICATION NO. 2013-01

REPORT TO THE GOVERNOR ON APPLICATION NO. 2013-01

TABLE OF CONTENTS

Executive Summary 4

I. INTRODUCTION 5

 A. The Tesoro Savage and the VEDT 5

 B. The Council and its Process 6

II. INFORMATIONAL PUBLIC HEARING 7

III. LAND USE CONSISTENCY HEARING 8

 A. Procedural Background 8

 B. Contested Issues and Decision 9

IV. AIR AND WATER PERMITS 10

 A. NPDES Construction Stormwater General Permit 11

 B. Notice of Construction Air Permit 12

 C. NPDES Industrial Stormwater Permit 13

V. COMPLIANCE WITH CHAPTER 80.50 RCW AND SEPA 14

 A. The SEPA Process 14

 B. The FEIS 15

VI. ADJUDICATIVE PROCEEDING 16

 A. Procedural Background 16

 B. Contested Issues 17

 C. Decision 17

VII. DISCUSSION AND RESOLUTION OF CONTESTED ISSUES 18

 A. VEDT Site Operations 18

 B. Rail Route Operations 24

 C. Vessel Operations 34

 D. Water Quality 37

 E. Protection of Wetlands 41

 F. Biological and Ecological Impacts 43

 G. Land Use Consistency and Other Communities’ Interests 44

 H. Tribal Cultural and Economic Impacts 47

 I. Clark County Jail Work Center 49

 J. Emergency Response Capabilities 50

 K. Socioeconomic Impacts 52

 L. Air Emissions and Greenhouse Gases 54

 M. Noise 58

 N. Need for the VEDT 59

 O. Financial Assurances and Potential Uncovered Costs 62

VIII. LEGAL FRAMEWORK AND ANALYSIS UNDER RCW 80.50.010 65

 A. Legal Framework 65

IX. FINDINGS OF FACT AND CONCLUSIONS OF LAW 94

X. RECOMMENDATION 99

Application. Tesoro Savage Petroleum Terminal, LLC, d/b/a Vancouver Energy, LLC, (Tesoro Savage) a Delaware limited liability company, filed Application for Site Certification 2013-01 (ASC) with the Energy Facility Site Evaluation Council (Council) on August 29, 2013, an amended ASC on February 25, 2014, a Supplemental ASC including revised air permit language in August of 2014, subsequent amended ASC on May 27, 2016, and an amended ASC on October 6, 2016.¹ Tesoro Savage proposed to construct and operate the Vancouver Energy Distribution Terminal (VEDT) at the Port of Vancouver USA, in the City of Vancouver, Washington. The VEDT will be designed to receive Bakken and diluted bitumen (crude oil) from throughout North America, with the current expectation that most of the crude oil will come from mid-continent sources in America (with a focus on North Dakota) and Canada.

Recommendation. The Council recommends the ASC be rejected.

Parties. The statutory parties to this adjudication are:

Applicant, Tesoro Savage: Dale N. Johnson, Jay P. Derr, and Tadas A. Kisielius, attorneys, Van Ness Feldman LLP, Seattle, Washington.

Counsel for the Environment (the CFE): Matthew R. Kernutt, Assistant Attorney General, Olympia, Washington.

Port of Vancouver, Washington (the Port): David F. Bartz, attorney, Schwabe Williamson & Wyatt, Portland, Oregon, and Connie Sue Martin, attorney, Schwabe, Williamson & Wyatt, Seattle, Washington.

Clark County, Washington (Clark County): Taylor R. Hallvik, attorney, Vancouver, Washington.

The City of Vancouver, Washington (Vancouver): E. Bronson Potter, attorney, and Karen L. Reed, attorney, City Attorney, Vancouver, Washington, and Susan E. Drummond, attorney, Law Offices of Susan Elizabeth Drummond, PLLC, Kirkland, Washington.

State of Washington Department of Natural Resources (DNR): Terence A. Pruit, Assistant Attorney General, Olympia, Washington.

The intervention parties who appeared are²:

Columbia Waterfront LLC (Columbia Waterfront): Linda R. Larson, attorney, Marten Law, Seattle, Washington, and Daniel L. Timmons, attorney, Marten Law, Portland, Oregon.

Columbia River Inter-Tribal Fish Commission (CRITFC): Julie A. Carter, attorney, and Robert C. Lothrop, attorney, Portland, Oregon.

International Longshore Warehouse Union Local 4 (ILWU Local 4): Cager Clabaugh and Jared Smith, Vancouver, Washington.

The City of Spokane (Spokane): Nancy Isserlis, City Attorney, Spokane, Washington.

The Confederated Tribes of the Umatilla Indian Reservation (Umatilla Tribes): Brent H. Hall, attorney, Portland, Oregon.

The Confederated Tribes and Bands of the Yakama Nation (Yakama Nation): Amber Penn-Roco, attorney, and Joe Sexton, attorney, Galanda Broadman, Seattle, Washington.

The City of Washougal (Washougal): Donald L. English and Scott Russon, City

¹ Ex. 0001-000001-8233-PCE.

² BNSF Railway Co. was granted leave to file amicus brief on the issue of federal preemption of state authority as it pertains to rail operations in the State of Washington on May 16, 2016.

Attorney's Office, Vancouver, Washington.

Columbia Riverkeeper, Climate Solutions, Forestethics³, Friends of the Columbia Gorge, Fruit Valley Neighborhood Association, Sierra Club; Spokane Riverkeeper, and Washington Environmental Council (collectively "Columbia Riverkeeper"): All represented by attorneys Kristen L. Boyles, Janette K. Brimmer, and Anna Sewell, Earthjustice, Seattle, Washington, and David A. Bricklin, attorney, Bricklin & Newman, LLP, Seattle, Washington.

Executive Summary.

RCW 80.50.010, the Energy Facility Site Locations Act (EFSLA), provides the central legal framework for the Council's siting recommendation. The Washington Supreme Court has described the EFSLA as seeking to balance the increasing demands for energy facility location and operation in conjunction with the broad interests of the public. The Council applies RCW 80.50.010 by weighing and balancing the need for the proposed VEDT against its impacts on the broad public interest, including human welfare and environmental stewardship. The Council then determines whether the proposed VEDT at the particular site selected will produce a net benefit justifying a recommendation of project approval. Tesoro Savage bears the burden of proving, by the preponderance of the evidence, that the VEDT meets this and other requirements of law.

The Council has carefully considered the record before it: 1) the record in the land use consistency hearing; 2) the adjudicative record and the discussion, findings of fact, and conclusions of law in the Adjudication Order; 3) the Final Environmental Impact Statement (FEIS); 4) the ASC and any commitments made by Tesoro Savage in the ASC, at the hearing, and after the adjudication hearing; 5) the public comments received during hearings, 6) the draft Site Certification Agreement; and 7) the draft air and water permits; and 8) the statutory policies on need for energy at a reasonable cost, need to minimize environmental impacts, and other relevant state energy policies.

The Council concludes that Tesoro Savage has failed to meet its burden of proving that the VEDT sited at the Port will produce a net benefit after balancing the need for abundant energy at a reasonable cost with the impact to the broad public interest. Therefore, we recommend that the Tesoro Savage ASC be denied.

This report provides the support for this recommendation. The Order Determining Land Use Consistency (Order 872), the Adjudication Order, and the FEIS are incorporated herein as if set forth in full. Therefore, this report will not, to the extent possible, repeat that which is included in Order 872, the Adjudication Order, or the FEIS.

³ ForestEthics changed its name to "Stand" in April 2016. Columbia Riverkeeper, *et al.* and Tribal Parties' Pre-Hr'g Br. 1:n.1.

I. INTRODUCTION

A. The Tesoro Savage and the VEDT⁴

This is an application for a site certification agreement allowing Tesoro Savage, a limited liability company formed as a joint venture of Tesoro Refining & Marketing Company LLC (a wholly owned subsidiary of Tesoro Corporation)⁵ and Savage Companies,⁶ to construct and operate the VEDT at the Port. According to the ASC, at full operation, the VEDT would receive an average of more than four loaded crude oil unit trains⁷ per day, multiplied by 750 barrels (bbl) per car for an average of at least 360,000 bbl of oil a day, at 120 cars per unit train, and 1,713 trains per year.⁸ Each unit train is approximately 1.5 miles long.⁹ The ASC's estimate of four trains per day corresponds with the maximum possible throughput of 131.4 billion barrels per year if one assumes the maximum 120 cars per train with each car fully loaded at 750 bbl. However, the ASC also acknowledges that the number of cars and the amount of oil per car would vary, and provides a range of estimated capacity per train of 65,000 to 90,000 bbl, which results in a range of four to five-and-a-half trains per day. In this report, the Council thus uses a figure in the middle of that range or 4.7 trains per day, based on the ASC figure of 1,713 trains per year. Each unit train is approximately 1.5 miles long.

Tesoro Savage proposes to construct and operate the VEDT on property leased from the Port.¹⁰ The VEDT will occupy three main areas: Area 200, the rail unloading area and location of the office facilities; Area 300, the oil storage area where the crude oil will be delivered via pipeline from the train unloading areas; and Area 400, the marine terminal (or dock area) that will receive crude oil via pipelines from the storage tanks and occasionally directly from the rail unloading area. Tesoro Savage will build a new rail track on the outside of existing loop tracks and shift existing tracks in Terminal 5 that were added as part of the West Vancouver Freight Access Project (WVFA Project). In addition, Area 500 will have the pipeline to move crude oil between Areas 200, 300 and 400; and Area 600 would consist of the boiler buildings.¹¹ The ASC is based on a 10-year lease with the Port, with two five-year extensions, for a total project duration of 20 years.¹² However, for design purposes, standard building codes typically assume that facilities will remain functional for a 50-year life.¹³

⁴ For additional details of the VEDT, see the Description of the VEDT Proposal in the Adjudication Order.

⁵ Tesoro Corporation changed its name to Andeavor in connection with a merger that closed on June 1, 2017. See letter dated August 11, 2017, to Stephen Posner, Manager, Energy Facility Site Evaluation Council from Charles Cavallo III, Deputy General Counsel-Commercial & Logistics, Andeavor; and Chair William H. Lynch's August 28, 2017, letter reopening the record to admit Mr. Cavallo's letter to the record.

⁶ Ex. 0001-000048-PCE.

⁷ "Unit train" is a rail industry term that defines a single train movement of cars carrying the same commodity. PFT of Hack 7. The crude oil unit trains typically consists of between 80 and 120 cars all carrying exactly the same thing, crude oil. PFT of Millar 9.

⁸ Ex. 0001-000740-PCE. Tr. 308, vol. 2.

⁹ It is possible that more than four unit trains would arrive in a single day as there is variability in the supply chains moving to or from the facility. Tr. 308-09, vol. 2.

¹⁰ Tr. 314, vol. 2.

¹¹ Tr. 303, vol. 2.

¹² Tr. 314, vol. 2.

¹³ PFT of Wartman 3.

B. The Council and its Process

RCW 80.50.030 created the Council, a Washington state agency, to advise the Governor in deciding whether to approve an application to site certain new large energy facilities such as the VEDT. The Council must “prepare written reports to the governor” which shall include a recommendation on applications to construct a proposed energy facility on a specified site and, if recommending approval, the site certification agreement embodying the conditions upon which approval should be granted.¹⁴

The Council’s analysis is guided by RCW 80.50.010, which articulates Washington’s policy to recognize the pressing need for additional energy facilities; ensure that the location and operation of such facilities produce minimal environmental effects; and balance the rising demand for energy facilities with the broad interests of the public. For non-nuclear projects, such balancing is to include 1) adequate operational safeguards; 2) environmental protection and improvement, including the enhancement of the public’s opportunity to enjoy the esthetic and recreational benefits of the air, water, and land resources; 3) providing abundant energy at a reasonable cost; and 4) avoiding costly duplication and wasted time.

The Council must weigh and balance the need for the proposed facility against its impacts on the broad public interest, including human welfare and environmental stewardship. The Council then determines whether the proposed facility at the particular site selected will produce a net benefit that justifies a recommendation of project approval.

The Council consists of a chair, appointed by the Governor, and appointees of the Departments of Ecology, Fish and Wildlife, Natural Resources, and Commerce; and the Utilities and Transportation Commission.¹⁵ The county and city in which the project is to be sited appoint a voting member, and the port in which the project is to be sited appoints a nonvoting member.¹⁶ In addition, the Department of Transportation elected to appoint a member to the Council for the purpose of this application process.¹⁷

The Council Review Process. In reviewing the application, the Council must complete a number of separate but distinct procedural steps. The steps are listed below, with a more-detailed summary of each activity in the activity’s separate section.

Informational Public Hearing. RCW 80.50.090(1) requires the Council to conduct an informational public hearing in the county of the proposed site no later than 60 days after receipt of the application for site certification. The Council held this informational public hearing October 28, 2013.

¹⁴ RCW 80.50.040(8); RCW 80.50.100(2).

¹⁵ RCW 80.50.030(4), (5) and (6).

¹⁶ Clark County, the City of Vancouver, and the Port of Vancouver all designated a member to the Council for the purpose of this application.

¹⁷ The Departments of Agriculture, Health, and the Military also have the option of sitting on the Council when it considers specific projects. None chose to do so in this proceeding. RCW 80.50.030(3)(b).

Land Use Hearing. RCW 80.50.090(2) requires the Council to conduct a public hearing to determine whether the proposed site is consistent and in compliance with city, county, or regional land use plans or zoning ordinances. The Council held this land use hearing May 28, 2014, and issued Order 872 (Order Determining Land Use Consistency) August 1, 2014.

Air and Water Permit Hearings. RCW 80.50.040(12) requires the Council to issue air permits that become effective if the Governor approves an ASC. RCW 90.48.262(2) requires the Council to issue water quality permits that become effective if the Governor approves an ASC. Public hearings are required as part of the permit processes. The Council held public hearings on the three required permits related to this Application.

State Environmental Policy Act (SEPA). The Council must comply with SEPA, which requires consideration of probable significant adverse environmental impacts of government action (approval or denial of the application) and possible mitigation. Requirements include a threshold determination of significance, and if a determination of significance is issued, commencement of scoping, issuance of the draft environmental impact statement (DEIS) for comment, and issuance of an FEIS.

Adjudicative Proceeding. RCW 80.50.090(3) requires the Council to hold an adjudicative proceeding under the Administrative Procedures Act (APA), during which any person may be heard in support of or in opposition to the ASC. From the adjudicative proceeding, the Council issues an adjudication order setting out findings of fact and conclusions of law, and the reason and basis thereof, on all material issues of fact and law presented.

II. INFORMATIONAL PUBLIC HEARING

RCW 80.50.090(1) requires the Council to conduct an informational public hearing in the county of the proposed site no later than 60 days after receipt of the application for site certification. The Council conducted the public informational meeting October 28, 2013, at Clark College, Gaiser Student Center, Vancouver, Washington. The Council members present at the meeting were Dennis Moss, Acting Chair, Utilities and Transportation Commission; Bill Lynch, incoming Chair; Andy Hayes, Department of Natural Resources; Christina Martinez, Department of Transportation; Bryan Snodgrass, City of Vancouver; Cullen Stephenson, Department of Ecology; Joe Stohr, Department of Fish and Wildlife; Jeff Swanson, Clark County; Liz Green Taylor, Department of Commerce; and Larry Paulson, Port of Vancouver.¹⁸ The Council retained Adam Torem, Administrative Law Judge, for this meeting.

After a presentation by Tesoro Savage describing the VEDT project and a presentation by Council staff describing the Council and its role in this application process, the public was provided the opportunity to provide comment. Nineteen witnesses did so. Several witnesses did not express an opinion in support or opposition to the VEDT, but rather pointed out issues that should be addressed, such as the need for a guarantee that if an event occurred, appropriate mitigation procedures are ensured. Three witnesses testified in favor of the VEDT based on the economic benefits to the area, specifically, job creation. The majority of the witnesses testified in opposition

¹⁸ Current Council members who were not present at the hearing have read the record and reviewed the evidence received.

to the VEDT based on the risk of spills in the Columbia River, concerns for rail safety and Tesoro's safety record, effect on air quality and higher greenhouse gas emissions, and the risks associated with potential earthquakes.

III. LAND USE CONSISTENCY HEARING

A. Procedural Background

RCW 80.50.090(2) requires the Council to conduct a public hearing to determine whether the proposed site is consistent and in compliance with city, county, or regional land use plans or zoning ordinances. On May 9, 2014, the Council issued a Notice of Land Use Consistency Hearing and conducted the required public hearing in Vancouver, Washington, at 6:00 p.m. on May 28, 2014.¹⁹ The Council received requests to postpone or cancel the land use consistency hearing from Vancouver, Friends of the Columbia Gorge, Columbia Riverkeeper, Columbia Waterfront, and form letters and emails from members of these organizations or the public.²⁰ The requests to cancel or postpone the hearing were denied in letters from the Council Manager²¹ and in the portion of Order 872 that addressed preliminary issues.²²

The purpose of the land use hearing is "to determine whether at the time of application the proposed facility was consistent and in compliance with land use plans and zoning ordinances."²³ The Council's governing statute defines a "land use plan" as "a comprehensive plan or land use element thereof adopted by a unit of local government" under specified laws.²⁴ The statute further defines "zoning ordinance" as "an ordinance of a unit of local government regulating the use of land and adopted pursuant to" specified laws.²⁵ In Order 872 and in this report, the Council refers to these land use plans and zoning ordinances collectively as "land use provisions," and refers to its decision as pertaining to "land use consistency."

The following Council members were present at the May 28, 2014, hearing: William Lynch, Chair; Cullen Stephenson, Department of Ecology; Joe Stohr, Department of Fish and Wildlife; Andrew Hayes, Department of Natural Resources; Dennis Moss, Utilities and Transportation Commission; Christina Martinez, Department of Transportation; Bryan Snodgrass, City of Vancouver; Jeff Swanson, Clark County; and Larry Paulson, Port of Vancouver.²⁶ Administrative Law Judge Adam Torem presided over the public hearing. Testimony and presentations were limited to the question of whether the VEDT is consistent and in compliance

¹⁹ Order 872 at page 1.

²⁰ *Id.* at pages 2-3.

²¹ *Id.* at page 2.

²² *Id.* at pages 6-9.

²³ WAC 463-26-050.

²⁴ RCW 80.50.020(14), which specifies plans adopted under chapters 35.63, 35A.63, 36.70, or 36.70A RCW, or as otherwise designated by chapter 325, Laws of 2007.

²⁵ RCW 80.50.020(22), which specifies ordinances adopted pursuant to chapters 35.63, 35A.63, 36.70, 36.70A RCW, or Article XI of the state Constitution, or as otherwise designated by chapter 325, Laws of 2007.

²⁶ Current Council members who were not present at the hearing have read the record and reviewed the evidence received.

with Vancouver's Comprehensive Plan and the Vancouver Municipal Code (VMC), particularly the zoning code, Title 20.

There are two possible courses of action with regard to land use consistency. The first course of action is for Tesoro Savage to present a certificate from Vancouver attesting that the VEDT is consistent and in compliance with the applicable land use provisions.²⁷ Where that certificate is not available, the second course of action is for Tesoro Savage to present testimony and evidence to support its burden of proving that the VEDT is consistent and in compliance with the applicable land use provisions.²⁸ The local government will also present testimony and evidence about land use consistency.²⁹ For this hearing, Tesoro Savage did not obtain a certificate from Vancouver attesting to the land use consistency of the VEDT.³⁰ Therefore, Tesoro Savage retained the burden of proving the VEDT is consistent and in compliance with applicable land use provisions.

On July 14, 2014, after the public hearing, Vancouver filed a Response to Applicant's Argument on Statutory Interpretation. On July 15, 2014, Tesoro Savage filed a Motion to Strike and Vancouver filed a Response.

B. Contested Issues and Decision

Statutory interpretation of RCW 80.50.090(2) regarding land consistency determination. Tesoro Savage argued that a narrow interpretation is warranted in that the VEDT needs to be consistent with either the zoning or the land use plan. Vancouver and others believe a broader interpretation is warranted. In addition, the opponents argued that 1) an EIS must precede Vancouver's consideration of land use consistency; 2) the Council should not make the final decision on land use consistency until the FEIS is issued; 3) the public had insufficient time to prepare comments; 4) the VMC Type II process applies to the Council's land use consistency decision; 5) Vancouver had insufficient time to prepare comments; and 6) the Council's hearing was defective.³¹

The Council found, based on the pertinent statutes, legislative history, and past practices, that a narrow reading of the land use consistency process was warranted.³² In addition, the Council concluded that 1) an EIS need not precede the City's consideration of land use consistency; 2) the Council may make the final decision on land use consistency before the FEIS is issued; 3) the public had sufficient time to prepare comments; 4) the VMC Type II process does not apply to the Council's land use consistency decision; 5) Vancouver had sufficient time to prepare comments; and 6) the Council's hearing was not defective.³³

Based on the findings of fact and conclusions of law derived from the testimony and exhibits presented at the Land Use Consistency Hearing, the Council issued Order 872, concluding

²⁷ WAC 463-26-090.

²⁸ WAC 463-26-100.

²⁹ *Id.*

³⁰ Order 872 Finding of Fact 2 page 14.

³¹ Order 872 at pages 6-9.

³² Order 872 at pages 9-15.

³³ Order 872 at pages 6-9.

that Tesoro Savage met its burden of proof demonstrating that the VEDT is consistent and in compliance with the applicable land use provisions because the provisions do not clearly, convincingly, and unequivocally prohibit the VEDT.³⁴ To the contrary, the Comprehensive Plan specifically allows the proposed use in the area where the VEDT is located.³⁵ The Comprehensive Plan designates that area as “Industrial” and allows within it the “IH Heavy Industrial” subtype, which is generally intended for “[i]ntensive industrial manufacturing, service, production or storage often involving heavy truck, rail, or marine traffic, or outdoor storage and generating vibration, noise and odors.”³⁶ The pertinent ordinance zone the location where the VEDT is proposed as “IH-Heavy Industrial,” which is designated as appropriate for intensive industrial uses such as warehousing, freight movement, and railroad yard.³⁷ Proper activities in the IH zone include the use of raw materials, significant outdoor storage, and heavy rail traffic.³⁸ Permitted uses included storage and movement of large quantities of materials or products outdoors, and uses associated with significant rail traffic.³⁹ The VEDT is permitted outright in the IH zone and meets the development standards associated with the IH-Heavy Industrial Zone.⁴⁰ Order 872 also stated that nothing in the Order precludes anyone from raising the broader land use issues in the EIS process, the environmental permitting processes, or during the adjudicative proceeding.⁴¹

After the Council issued Order 872, it received multiple procedural objections pursuant to RCW 80.50.140.⁴² RCW 80.50.140(2) states that objections to procedural errors by the Council will be waived unless objections are filed within specified timelines.

IV. AIR AND WATER PERMITS

RCW 80.50.040(12) requires the Council to issue air permits that become effective if the Governor approves an application for site certification. RCW 90.48.262(2) requires the Council to issue water quality permits that become effective if the Governor approves an application for site certification. The permit process also includes public hearings and an opportunity for the public to submit written comments.

For each of the permits, the Council reviewed the public comments and made changes to the draft permits as a result of a comment were noted in the response to the applicable comment.

Although all three permits were prepared for issuance, each limits but does not prevent the cumulative discharge or emissions of toxic pollutants but does limit and/or prohibit certain types of discharges. The limitations are intended to ensure that the VEDT does not exceed regulatory

³⁴ Order 872 at 12-16.

³⁵ Order 872 at 12-13.

³⁶ Order 872 at 13.

³⁷ Order 872 at 13.

³⁸ Order 872 at 13.

³⁹ Order 872 at 13.

⁴⁰ Order 872 at 13.

⁴¹ Order 872 at 2, 14, 15

⁴² On September 12, 2014, the City filed a procedural objection. On September 21, 2014, Friends of the Columbia Gorge, Columbia Riverkeeper, the Northwest Environmental Defense Center, the Sierra Club, and the Center for Biological Diversity filed a procedural objection. On September 26, 2014, Columbia Waterfront filed a procedural objection.

standards, and the monitoring and reporting requirements are intended to ensure that permit violations are caught and addressed. However, the permits all look at a narrow part of the VEDT operation and are not intended to address the broader or cumulative impacts of the VEDT.

Below is a summary of the process and outcome for each of the three permits.

A. NPDES Construction Stormwater General Permit

On July 1, 2015, the Council issued a draft Construction Stormwater General Permit (CSWGP), Fact Sheet, and related documents for the VEDT. In addition, the Council conducted public workshops in Vancouver, Mount Vernon, Moses Lake, Seattle, and University Place in July and August 2015; a webinar on July 30, 2015; and a public hearing on August 5, 2015, to provide an opportunity for interested persons to give oral testimony and comments on the draft permits. Finally, the Council opened a written comment period beginning July 1, 2015, through August 10, 2015, to allow the public to address specific permit conditions. The Council reviewed and considered all public comments and issued a final permit November 18, 2015, with a January 1, 2016, effective date.

On October 26, 2016, the Council made a tentative determination to issue the draft CSWGP. The Council published a Public Notice of Draft October 31, 2016, to inform the public that a draft permit and fact sheet were available for review and that a 30-day public comment period began on that date through November 29, 2016. In addition, the Council conducted a public comment meeting November 29, 2016, at Clark College in Vancouver, Washington. Oral comments were provided by 46 people.⁴³ Three-quarters of the speakers expressed opinions to deny the CSWGP as proposed, for not meeting the minimum requirements. Speakers suggested that only an individual permit should be considered or approved; that any permit should have specific numerical limits that could be monitored; that monitoring should be done by an independent third party; and that specific requirements be included to mitigate erosion, runoff, and other actions that may pollute the Columbia River. Approximately 11 speakers commented in favor of approving the CSWGP, stating that the application has sufficient standards and mitigation to protect the Columbia River and that Tesoro Savage is well positioned to monitor its activities to ensure compliance with the SCWGP.

The Council received 184 written comments on the draft CSWGP. The written comments focused on the same issues as those provided at the public meeting. There were numerous comments that included introductory statements. These provided important perspective and context that helped the Council staff finalize the CSWGP, but for which a specific response was not provided. More-specific topics included the failure of the CSGWP to adequately address current water quality problems; the additional harm to water quality and aquatic life from this discharge; and that areas included in the coverage should be broader. In addition, the comments expressed concern over Tesoro Savage's monitoring its own compliance as the public believes the company has a poor safety record and a conflict of interest in compliance monitoring and reporting. The comments and responses are detailed in the Addendum to the Fact Sheet for the State of Washington Draft 2016 Construction Stormwater General Permit Dated July 1, 2015.

⁴³ Transcript of November 29, 2016, Public Comment Meeting- Main Hall, Vancouver, Washington.

The CSWGP coverage has been finalized and may be issued if the ASC is approved. The CSWGP has both general conditions and special conditions. The special conditions include prohibited discharges; limits on coverage; reporting and notification requirements; monitoring, benchmarks and reporting triggers; and record-keeping requirements. The CSWGP, the Fact Sheet, and the Addendum to the Fact Sheet are incorporated into this report as if fully set forth herein.

B. Notice of Construction Air Permit

On May 2, 2017, the Council made a preliminary determination to issue the draft Notice of Construction Air Permit (NOC Air Permit) for the VEDT. The Council provided opportunities for the public to comment on the NOC Air Permit. The 37-day formal public comment period began May 3, 2017, and ended June 7, 2017. The public also had an opportunity to provide oral and written comments at the Council's public comment meeting conducted June 7, 2017, at Clark College in Vancouver, Washington. At that meeting, 159 people provided oral comments.⁴⁴ Of those who spoke, 119 individuals expressed concern about the NOC Air Permit and requested its denial. Many comments focused on the increased release of toxic air pollutants including benzene, hexane, hydrogen sulfide, CO₂, diesel emissions, and fugitive emissions. Many speakers from the health industry expressed concern about negative health impact from increased pollutants, with heightened concern about children and the elderly (and others with small or compromised airways), persons with asthma or other pulmonary diseases, and the increased risk of certain cancers. In addition, with respect to the permit application, concerns were expressed that there were errors, omissions, and misrepresentations, and that the estimates were low for emissions; emission factors were out-of-date; and the emissions calculation did not include all toxins that would be present. Finally, there was concern about the lack of an independent analysis; specific and measurable limits and standards; and a process for third-party monitoring and testing. Forty people spoke in favor of approving the permit. Most of those speakers cited the fact that the process was comprehensive, and that the permit was fully vetted and found to meet federal and state standards. In addition, persons in favor of approval pointed to Tesoro Savage's use of the best available control technology, and to the testing and monitoring put into place to ensure compliance with the permit and state and federal standards. Although there is disagreement, all those who spoke in favor of approval cited the fact that they believe the emissions meet the definition for a minor source.

The Council received 2,976 written comments. The written comments focused on the same issues as those provided in person at the public meeting. In addition to general questions about the NOC Air Permit's contents, there were many questions about limits on emissions, required reporting, and monitoring of requirements. There were comments related to the expected unpleasant odors and their impact on quality of life, concerns about health and safety, and impact on climate change. There were also many comments that the emissions were not properly modeled, the emission levels were underestimated, and the mitigation measures are difficult, if not impossible to enforce. Finally there was concern that the permit did not include mobile sources of emissions outside the VEDT.

The Council contracted with the Southwest Clean Air Agency (SWCAA) to write the permit. The SWCAA prepared responses to all comments received, which were then reviewed and

⁴⁴ Transcript of June 7, 2017, Public Comment Meeting- Main Auditorium, Vancouver, Washington.

approved by Council staff. If the comment was not substantive, it was noted. If the comment posed a question, the question was answered. If the comment was substantive, it was addressed, and where appropriate, the NOC Air Permit was modified. The comments and responses are in the Technical Support Document to the Vancouver Energy Terminal Application 2013-01, beginning on Page 23.

Based on all the information received from Tesoro Savage, and taking into account the comments received and the expertise of the permit writer, a draft final NOC Air Permit with conditions is available to be issued if the ASC is approved. The Permit contains limits on emissions, as well as testing, monitoring, and reporting requirements. The Permit and Technical Support Document are incorporated into this Report, as if fully set forth herein.

C. NPDES Industrial Stormwater Permit

On July 18, 2017, the Council made a tentative determination to issue the draft NPDES Industrial Stormwater Permit (ISP). The Council made the draft ISP and Fact Sheet available for public review and comment during a 30-day public comment period. The Council provided an opportunity for the public to provide written comments beginning July 19, 2017, until August 22, 2017. In addition, the Council conducted a public comment meeting August 22, 2017, at Clark College in Vancouver, Washington. Oral comments were provided by 89 people.⁴⁵ There were 56 people who spoke in opposition to the ISP, asking that the permit be denied. Those opposed to granting the ISP did not believe Tesoro Savage had met its burden to show that the lowering of water quality is necessary and in the overriding best interest of the public. They also claimed the permit application is incomplete and contains misleading information, and only vaguely addresses the methods that will be used to prevent, control, and treat stormwater runoff. In addition, opponents stated that the ISP application did not include the required oil spill control plan nor a list of oil and petroleum products that will be used by the VEDT. Finally, individuals expressed concern about the negative impacts to water quality that pose health risks. In contrast, 28 people spoke in support of granting the permit. Supporters believe Tesoro Savage met its burden of showing compliance with the requirements of chapter 463-76 WAC. In addition, supporters believe the ISP contains limits, conditions, and monitoring, including the potential for on-site inspections to ensure compliance and water safety. Because Tesoro Savage will be using best management practices to manage stormwater by capturing and testing it as well as by maintaining daily logs, safety concerns are not an issue to the supporters.⁴⁶

The Council received 346 written comments. Numerous comments included introductory and general comments about the ISP or the VEDT. That information provided perspective and context that helped Council staff finalize the permits but for which no specific response was provided. The written comments generally addressed the same topics as those provided at the public hearing, both in support and opposition to the ISP. The comments and responses are detailed in Appendix E to the Fact Sheet. Based on the information provided, an ISP was prepared and will be issued if the ASC is approved. The ISP contains general conditions as well as special conditions. The special conditions address discharge limitations and limitations on effluents, as well as

⁴⁵ Transcript of August 22, 2017, Public Comment Meeting- Main Auditorium, Vancouver, Washington.

⁴⁶ In addition, there were five speakers who did not take a specific position on the permit, but expressed support for the process and trusted the Council to make the right decision, based on the facts.

requirements for monitoring, reporting and recording, and operations and maintenance. The ISP and Fact Sheet are incorporated into this report as if fully set forth herein.

V. COMPLIANCE WITH CHAPTER 80.50 RCW AND SEPA

A. The SEPA Process

SEPA, chapter 43.21C RCW, requires consideration of environmental information about impacts, alternatives, and mitigation before committing to a course of government action (approval or disapproval of the application). SEPA also gives agencies the authority to condition or deny a proposal based on the agency's adopted SEPA policies and environmental impacts identified in a SEPA document. (The Council's SEPA rules are found in chapter 463-47 WAC.) The Council complied with SEPA requirements, as set forth herein.

On October 1, 2013, the Council issued a Determination of Significance Scoping Notice and Notice of Public Scoping Meeting,⁴⁷ to be conducted in Vancouver, Washington, on October 29, 2013, from 6:00 to 9:00 p.m. During that three-hour meeting, 70 people provided oral comments. The issues that drew the greatest number of comments related to the impact on climate change and environmental health and safety. There were general comments in opposition to the VEDT. There were also comments about the impact on air quality; fish, wildlife and vegetation; socioeconomic and economic areas; adequacy of emergency response plans and resources; and alternatives for energy conservation and renewable energy sources. Commenters also asked that the EIS focus on both secondary and cumulative effects of the VEDT.⁴⁸

On November 8, 2013, the Council issued a Notice of Additional Public Scoping Comment Meeting, to be conducted in Spokane Valley, Washington, on December 11, 2013, from 6:00 to 9:00 p.m. Over the course of this three-hour meeting, 35 people provided oral comments. In addition to the same areas highlighted at the earlier meeting, there were many comments related to transportation-related impacts from the higher number of oil trains and the route of those trains, especially along the Columbia River. There was also a concern that the impacts outside of the Port be included in the assessment.⁴⁹

Written comments were also accepted. The original date for written comments was November 18, 2013. That date was extended to December 18, 2013. A total of 30,947 letters and emails was received. Of those, 30,212 followed one of 10 form letter templates, two of which were form petitions. The written comments reiterated the same topic areas reflected in the oral comments. A complete summary can be found on Pages 14 through 28 (comments from agencies, tribes, and officials) and Pages 29 through 42 (public comments) of the Scoping Report dated February 2014.

On April 2, 2014, the Council conducted a public workshop in Vancouver to discuss and

⁴⁷ The scoping phase of SEPA is the process to narrow the focus of the EIS to the probable significant adverse impacts and to identify reasonable alternatives, including mitigation measures. The process includes an opportunity for the public, tribes, and other agencies to provide oral or written comment.

⁴⁸ A more complete summary of the comments can be found in the Scoping Report dated February 2014.

⁴⁹ A more complete summary of the comments can be found in the Scoping Report dated February 2014.

approve the scope of analysis for the DEIS, which was issued in November 2015. To receive public comment on the DEIS, the Council conducted three public hearings, and oral and written comments were accepted:

- January 5, 2016, at the Clark County Event Center at the Fairgrounds, Ridgefield, Washington. Two sessions were held: 1:00 to 4:30 p.m. and 6:00 to 11:00 p.m., or last speaker. There were 292 speakers at these sessions.
- January 12, 2016, at the Clark County Event Center at the Fairgrounds, Ridgefield, Washington from 5:00 to 11:00 p.m., or last speaker. There were 178 speakers at this session.
- January 14, 2016, at the CenterPlace Regional Event Center at the Fairgrounds, Spokane Valley, Washington, from 5:00 to 11:00 p.m., or last speaker. There were 168 speakers at this session.

In addition, written comments were accepted beginning November 24, 2015, until January 22, 2016. More than 250,000 comments were received about the DEIS.

B. The FEIS

The Council staff relied upon some of the analysis in the DEIS to develop the FEIS. However, some of the information in the DEIS was updated in the FEIS. Revisions were made to update or clarify details of the VEDT, respond to public and agency comments, provide additional information related to the analysis of impacts, provide the information from additional technical analyses that were conducted for several environmental resources/concerns, and present additional mitigation measures. The Council's SEPA responsible official, the Council Manager, issued the FEIS on November 21, 2017.

The FEIS identified the following VEDT impacts as "significant unavoidable impacts."

- Earth Resources – Facility. A major earthquake at the VEDT "could cause impacts to the dock and transfer pipeline due to liquefaction of susceptible soils and subsequent slope failure. Damage to the dock and/or pipeline could result in an oil spill."⁵⁰
- Earth Resources – Rail. Large earthquakes could disrupt rail transportation through delays, track damage, or potential derailment. Landslides could result in track damage, train damage, delays, or potential derailment.⁵¹
- Earth Resources – Vessel. Earthquakes and landslides could cause seiches on the Columbia River, impacting vessels. Tsunamis from earthquakes and tsunamis from submarine landslides could impact vessels close to the marine shoreline.⁵²
- Environmental Health – Rail. An increase in trains would result in a higher number of pedestrian or vehicle accidents with trains and increase the number of annual deaths from this type of accident.⁵³
- Public Services and Utilities – Rail. Eight train trips in a day would obstruct each at-

⁵⁰ FEIS Section 3.1.5, page 3-47 and Table 3.1.2.

⁵¹ FEIS Section 3.1.5, page 3-47 and Table 3.1-2.

⁵² FEIS Section 3.1.5, page 3-47 and Table 3.1-2.

⁵³ FEIS Executive Summary ES-6.3, pages ES-26 to ES-28.

grade crossing for about 41 minutes in a 24-hour period; the average gate downtime at each of these crossings would be about five minutes per train. A delayed response by an emergency response vehicle could mean the difference between life and death.⁵⁴

- Socioeconomics – Rail. Impacts to fire protection, law enforcement, and emergency medical response services from delays at at-grade crossings would disproportionately affect environmental justice populations along the rail corridor.⁵⁵

- Oil Spills – Facility, Rail, and Vessel. Accidental oil spills may occur and can vary from small volumes (gallons) to much larger volumes (tens of thousands of barrels). The risk of a spill is present along the rail routes between Williston, North Dakota, and the Port, at the proposed Facility, during storage and transfer of oil, and along the vessel corridor as tankers transport the oil to refineries. A crude oil spill, and any fire and/or explosion resulting from the spill, could result in significant adverse impacts to the terrestrial, aquatic, and/or human environments, depending on the size, location, and extent of the incident.⁵⁶

VI. ADJUDICATIVE PROCEEDING

A. Procedural Background

RCW 80.50.090(3) requires the Council to hold an adjudicative proceeding under the APA.

On January 28, 2015, the Council issued an Order Commencing Agency Adjudication and Setting Intervention Petition Deadline. The Council convened an adjudicative evidentiary hearing that consisted of 21 days of testimony. The hearing convened June 27, 2016, through June 30, 2016, at Vancouver, Washington. Pursuant to notice to the parties, the Council visited and viewed the VEDT site June 27, 2016. The hearing reconvened on July 5, 2016, through July 22, 2016, at Olympia, Washington. The hearing concluded after sessions reconvened on July 25, 2016, through July 29, 2016, at Vancouver, Washington. In addition, on the afternoon of July 29, 2016, the Council held a session for public comment, which was made a part of the adjudicative record. Sessions were convened prior to the hearing to consider procedural matters and other motions.

The Council members who presided at the adjudicative hearing are Council Chair William Lynch⁵⁷ and Members Jaime Rossman, Department of Commerce; Cullen Stephenson, Department of Ecology; Joe Stohr, Department of Fish and Wildlife; Dan Siemann, Department of Natural Resources; Dennis Moss, Utilities and Transportation Commission; Kenneth Stone, Department of Transportation; Greg Shafer, Clark County; Bryan Snodgrass, City of Vancouver; and Larry Paulson, Port of Vancouver. The Council retained Cassandra Noble as Administrative Law Judge for purposes of this proceeding.

⁵⁴ FEIS Executive Summary ES-6.3, pages ES-26 to ES-28.

⁵⁵ FEIS Executive Summary ES-6.3, pages ES-26 to ES-28.

⁵⁶ FEIS Executive Summary ES-6.7. The range of potential impacts is described in FEIS Sections 4.7, 4.8 and 4.9.

⁵⁷ Chair Lynch resigned by letter to the Governor dated August 16, 2017. Governor Inslee appointed Roselyn Marcus Chair of the Council effective September 11, 2017. Ms. Marcus has read the record and reviewed the evidence received.

B. Contested Issues

The Council addressed several dispositive motions during the adjudicative process.

Rail and Vessel Issues. Motions were filed to dismiss all proposed rail and vessel transport issues and not to hear any evidence about matters that concern rail operations expected to take place in connection with transporting the crude oil to, and managing it at, the VEDT. The motions were based on federal preemption theories. The Council denied these motions, finding that federal law does not prevent the Council from hearing and considering evidence on these issues. Once all the evidence is heard, the Council can and will determine the extent of its jurisdiction.

Industrial Waste Discharges. The Council received cross motions related to the VEDT's industrial waste discharge permit and whether the Council or Vancouver is the appropriate entity to issue a permit for effluent discharges to Vancouver's publicly owned treatment works. The Council concluded that the Council lacks the authority to issue the pretreatment discharge permit.

Issuance of FEIS. A motion was filed to delay the adjudicative hearing until the FEIS was sufficiently complete. The Council denied the motion finding that the Council may initiate the adjudicative proceeding prior to completing the FEIS or DEIS.

Procedural Objections. After the close of the adjudicative record, Tesoro Savage filed Applicant's RCW 80.50.140(2) Procedural Objections. Based on statements from former Chair Lynch and his subsequent letter of resignation, Tesoro Savage alleges violations of the appearance of fairness doctrine, improper ex parte communications, and "violation of the EFSEC Council's deliberative duties and decision-making authority ..."⁵⁸ These objections are based on Tesoro Savage's perception that the Attorney General's Office engaged in activity in relation to the Council that may constitute substantive and procedural error. The parties were given an opportunity to respond. Vancouver, the CFE, Columbia Riverkeepers, and Tribal Parties all submitted responses, none of which supported the motion.

The Attorney General's Office has many roles. The CFE was a party to the adjudicative proceeding. The Council did not have any interaction with the CFE outside its participation as a party. The CFE did not provide any separate or substantive legal advice to the Council.

The Council has assigned assistant attorneys general (AAGs), who properly provided legal advice to the Council throughout the adjudicative proceeding. The AAGs assigned to advise the Council are walled off from any AAGs providing advice to or on behalf of the Washington State Attorney General. There is no basis for this Procedural Objection.

C. Decision

The Council issued Adjudication Findings of Fact, Conclusions of Law and Order to Proceed to Recommendation to the Governor (Adjudication Order), setting out in detail the adjudicative process, participants, issues, evidence, analysis, findings of fact, and conclusions of

⁵⁸ Applicant's RCW 80.50.142(2) Procedural Objections at 2-3.

law, as well as resolution of legal issues presented. The Council found that Tesoro Savage did not meet its burden of proof and recommended rejection of the ASC.

This Report will cite, rather than restate, Adjudication Order content, describing the content briefly as needed for understanding, support, and context. The condensed description included in this Report does not change the language or substance in the Adjudication Order.

VII. DISCUSSION AND RESOLUTION OF CONTESTED ISSUES

Based on the entire record before it, including the land use consistency hearing Order 872 (Section III. B.), the FEIS (Section V. B.), and the Adjudicative Proceeding (Section VI. B.), the Council must resolve whether Tesoro Savage has met the requirements of law and established that the VEDT, sited at the Port, will produce a net benefit justifying a recommendation of project approval. In resolving this question, the Council must consider issues including seismic/landslide hazards, air quality and greenhouse gas emissions, noise, wetlands, wildlife, water quality, rail route operations impacts, and vessel operation impacts, including those from oil spills, fires and explosions, as well as tribal cultural and economic impacts, socioeconomic impacts, and impacts to the Jail Work Center (JWC), need for the VEDT, adequacy of financial assurances, and consistency with other state energy policies.

A. VEDT Site Operations

1. Seismic Issues

Adjudicative Proceeding. The VEDT would be the largest crude by rail (CBR) facility in the United States.⁵⁹ The VEDT will be located in a seismic-event-prone location, which poses distinct and particular risks. The Pacific Northwest is a seismically active region, unique in that it is subject to large magnitude subduction earthquakes. There are a number of active faults within 25 miles of the VEDT site.⁶⁰ Many earthquakes of all types have occurred in the past and they will occur in the future.⁶¹ In addition to the Cascadia Subduction Zone (CSZ), there are a number of active shallow (closer to the ground surface) seismic sources that have different seismologic effects closer to the VEDT, including longer-duration shaking resulting in soil liquefaction.⁶²

Based on substantial evidence at the adjudicative proceeding, the Council found that there is a 15 percent chance that a great CSZ megathrust earthquake will occur in the region within the next 50 years, during the expected design lifetime of the VEDT. The aftershocks of such an earthquake also pose risk of impeding rescue, recovery and cleanup efforts. In addition, the Council found shallow earthquakes may occur at the VEDT, where the level of peak ground acceleration may exceed the level to trigger soil liquefaction, causing the liquefied state to linger for a longer period of time.

The soils at the VEDT are highly susceptible to soil liquefaction. In the absence of adequate

⁵⁹ PFT of Goodman 24.

⁶⁰ Tr. 2979, vol. 13.

⁶¹ Tr. 2977, vol. 13.

⁶² Tr. 2977-80, vol. 13.

ground improvements, ground settlement is estimated to be approximately 10 to 16 inches in the unloading and office areas and the boiler building; 6 to 10 inches in the storage tank area; 3 to 15 inches in the transfer pipelines area; and 12 to 24 inches in the marine terminal, with lateral spreading at the shoreline estimated to be up to approximately 12 feet, which could impact slope stability along the river bank. Tesoro Savage does not intend to extend ground improvements through liquefiable soil to the gravel layer (the competent layer) in Area 300 (the storage tanks).

There are no ground improvements underneath the berms in Area 300.⁶³ The rationale for this concerns a theory about liquid levels in a seismic event where the berm area settles, but the entire area settles uniformly, and not differentially. In that circumstance, it was assumed the berms would maintain their entire capacity. The Council believes this is not sufficient. The design assumed uniform settlement of the berm, which is “very rare,” because of natural variability in subsurface conditions.⁶⁴ This is a high liquefaction hazard, and expert testimony predicted the level of liquefaction under Area 300 would result in significant damage to containment protection structures such as berms and walls, reducing or negating their ability to contain spills.⁶⁵ With regard to the adequacy of an approach that meets code requirements, Dr. Joseph Wartman said it was his opinion that mere compliance with codes and standards would be insufficient to protect the community from triggering events that exceed predictions, and that “...multiple hazards at the site together with the severe consequences of failure combine in a manner that poses a high risk to the local region.”⁶⁶

Based on the evidence in the adjudicative record, the Council believes that the ability and sufficiency of the proposed physical alterations to behave in an earthquake in a determined, safe, and predictable manner in any type, size, or duration earthquake have not been established, especially for the most serious types of earthquakes. The lack of such advanced modeling analyses in the adjudicative record, particularly in light of an absence of empirical evidence of the stability of deep soil mixing panels and other features of the VEDT in securing similar facilities from damage in the event of large earthquakes, supports the Council’s conclusion. What has been established is that there is no design that can ensure avoidance of a catastrophic failure in some or all respects if the severe earthquake that is certain to occur happens within the life of the VEDT. And the impacts from an earthquake would be devastating.

Although risk cannot always be eliminated, when the consequences can be catastrophic, the level of acceptable risk is greatly reduced. Given the consequences, the Council concludes that in this instance, the level of risk is too high

Analysis of Seismic Risks under WAC 463-62-020. The Council next evaluates whether, if WAC 463-62-020 applies to the Council’s current evaluation, Tesoro Savage has met its burden of demonstrating that the VEDT has complied with the relevant provisions of the State Building Code, specifically the International Building Code (IBC) and ASCE 7-10. The Council does this evaluation because, as discussed later in this report, Tesoro Savage has argued that for the six topics identified in WAC 463-62 (seismicity, noise, fish and wildlife, wetlands, water quality, and

⁶³ Tr. 568, vol. 3 and Ex. 0370-000083-TSS.

⁶⁴ Tr. 3001-3002, vol. 13.

⁶⁵ PFT of Wartman 14.

⁶⁶ PFT of Wartman 12, 13.

air quality), the Council must view compliance with the standards stated in the rules as sufficient for site certification unless the Council exercises its substantive SEPA authority. The Council disagrees with Tesoro Savage's interpretation of this rule; WAC 463-62 is inapplicable during the Council's current analysis. However, the Council nonetheless analyzes whether, if the rule applies to the Council's analysis, Tesoro Savage has met its burden. As explained below, the Council concludes that it has not done so and that the Council need not, but will in the alternative, exercise substantive SEPA authority with regard to seismic issues.

Tesoro Savage argues that Risk Category II is appropriate because it is the default category for most structures, and a higher category is not required under ASCE 7-10, based on the testimony of its expert witnesses. The opponents presented the testimony of Dr. Wartman, who stated that, while compliance with building codes was not his particular area of expertise, Risk Category III was more appropriate.

Tesoro Savage does not appear to provide evidence or argument regarding the other factors in the risk category, aside from storage of toxic or hazardous chemicals, which can cause a facility or structure to be considered Risk Category III rather than Risk Category II. These factors include potential to cause substantial risk to human life or substantial economic impact in the event of failure. Given the testimony of expert witnesses such as Dr. Kelly J. Thomas that his quantitative risk estimates for populations on and off-site assume normal operating conditions, and that he did not model risk in the event of an earthquake, the Council infers that such probabilities would be significantly higher in the event of an earthquake exceeding the design earthquake used by Tesoro Savage's consultants, potentially resulting in significant risk to human life. This risk is exacerbated, in the Council's view, by the lack of any evidence provided to indicate that water supply lines serving the facility would be likely to remain intact in the event of a large earthquake. As noted by Dr. Wartman, such linear infrastructure is particularly vulnerable to liquefaction.

Taking ASCE 7-10 as a whole, including the commentaries regarding risk category and public, the Council finds Dr. Wartman's exercise of professional judgment to be the most persuasive. One reason for that is that the testimony of Tesoro Savage's geotechnical and engineering experts essentially did not disagree with Dr. Wartman as to the danger that the predicted earthquake activity presents to the public. The evidence clearly established that the Port is located in a place that is especially vulnerable to seismic activity from several types of earthquakes that the experts predict will occur at some time in the relatively near future. This includes the potentially catastrophic CSZ earthquake of magnitude 8 or 9. The evidence clearly established that the experts agreed that there is no amount of infrastructure improvement that can guarantee that the public would be fully protected from the consequence of such an earthquake. The Council notes that even if all designs perform as appropriate, there is a 2 percent chance that an earthquake exceeding these design specifications will occur within the next 50 years, further highlighting the importance of selecting the right risk category.

The Council thus concludes that, if WAC 463-62 applies to the Council's current consideration of seismic impacts, Tesoro Savage has not met its burden of proof under WAC 463-62-020 to demonstrate that the VEDT meets seismic standards contained in the State Building

Code and the Council can therefore act without exercising its substantive SEPA authority.⁶⁷

Analysis of Seismic Risks beyond WAC 463-62-020. The VEDT represents a substantial risk to human life and safety, including the safety of firefighters and first responders in the event of a structural failure. In fulfilling its duty, the Council must go beyond State Building Code compliance and decide whether it should recommend the siting of the VEDT facility *at the proposed location*. There is little disagreement that there is a significant chance⁶⁸ that a very serious large earthquake will occur sometime in the life of the project, along with the possibility of other, no less potentially dangerous earthquakes that can be expected at the VEDT site. Dr. Wartman testified to a 15 percent chance that a great CSZ megathrust earthquake will occur within the next 50 years, while Tesoro Savage estimates a 6-14 percent chance of an earthquake. Even if all designs perform as appropriate, there is a 2 percent chance that an earthquake exceeding the VEDT's design specifications will occur within the next 50 years. If the consequences were not so high, these numbers might suggest an acceptable risk. However, by definition, a small probability of a catastrophic impact creates high risk. The Council thus finds that, as a matter of public policy, these probabilities are "significant" and that the he VEDT at this location represents a substantial risk to human life, safety, and the environment.

FEIS. As discussed in the preceding section, the Council concluded that WAC 463-62-020 does not apply to the Council's current analysis and, even if it did apply, Tesoro Savage has not demonstrated compliance with that rule. As a result the Council may act on seismic issues without exercising substantive SEPA authority. The Council nonetheless considers the contents of the FEIS for two reasons: 1) to determine whether it lends useful information to the Council's analysis under RCW 80.50, and 2) to determine whether the FEIS provides support for the Council's exercise of its substantive SEPA authority if WAC 463-62-020 is deemed applicable to the Council's current analysis and if Tesoro Savage has established compliance that rule. For the reasons explained below, the FEIS lends useful information to the Council's RCW 80.50 analysis and also supports the Council's exercise of substantive SEPA authority to determine that the VEDT poses an unacceptable risk of seismic failure and consequential impacts.

After the adjudication, Tesoro Savage agreed to additional improvements to mitigate the risks associated with a large earthquake at the VEDT. Although the risk would be reduced with these additional improvements, the FEIS still concluded that there are significant unavoidable impacts to the VEDT from earthquake and landslide hazards. The FEIS states:

However, if an [maximum considered] earthquake (or larger) were to occur along the CSZ, liquefaction of susceptible soils underlying elements of the proposed Facility could result in significant structural damage to Facility elements, leading to a release of crude oil. However, key elements at the Facility (e.g., storage tanks and transfer pipelines) would be constructed with a

⁶⁷ The Council notes that Tesoro Savage also failed to sustain its burden of demonstrating that the State Building Code sets standards for the portion of the Area 400 marine terminal that is not subject to ASCE 7-10. Tesoro Savage suggests that portions of Area 400 are subject to ASCE 61-14 but does not demonstrate that the State Building Code has adopted ASCE 61-14 and, if it has, how the VEDT meets those requirements. Tesoro Savage similarly suggests that the pipelines in Areas 200, 300, 400, and 500 are subject to ASME B31.4 but has not linked that standard to the State Building Code or demonstrated the VEDT's compliance.

⁶⁸ Dr. Wartman testified to a 15 percent chance, while Tesoro Savage relies on a 6-14 percent chance of an earthquake. In either event, the Council finds this probability "significant." Tr. 1133, vol. 5.

ground improvement program that would lower the risk of structural damage from soil liquefaction. Implementation of the additional mitigation measures listed above would further reduce the risk of structural damage. It is important to note, however, that the risk is never completely eliminated irrespective of design and construction used at a site; no mitigation measures are available that fully eliminate the risk of structural damage from soil liquefaction.⁶⁹

There are several differences between the findings in the adjudication order and the FEIS. The FEIS had a lower risk of an earthquake occurring than was found in the Adjudication Order.⁷⁰ In addition, the FEIS used the Risk Category II for its standard in building design, while the Council found Risk Category III more appropriate for this location. The FEIS also concluded that the ground improvement mitigation would reduce the risk of structural damage, and other identified mitigation specific to spill response could reduce impacts should a spill occur regardless of cause, which are not totally consistent with the Council's adjudication findings.

Despite the FEIS conclusions that some of the identified mitigation would lower risk and other mitigation would reduce impacts should a spill occur, the FEIS still found that there were significant unavoidable impacts due to seismic hazards. The FEIS states that "[I]likelihood of this impact would be very low, however, should it occur, the consequences would be severe. Under SEPA WAC 197-11-794, impacts with a low likelihood but severe consequences would be considered significant impacts."⁷¹

SEPA Substantive Authority for Seismic Impacts. The Council next evaluates whether the FEIS provides a basis for an exercise of the Council's SEPA substantive authority, should that be deemed necessary.

Significant Adverse Impacts. The FEIS found significant unavoidable adverse impacts from an MCE earthquake occurring along the CSZ. Liquefaction of susceptible soils underlying elements at the VEDT could result in significant structural damage to the dock, storage tanks, and transfer pipes. Damage from this failure could result in an oil spill, which could reach the Columbia River. Depending on the volume of oil spilled, there could be significant adverse impacts to water quality, aquatic life, recreational and commercial fishing, and tribal cultural and economic resources. Although the risk may be considered low, the adverse impacts are severe.

Mitigation Measures. The FEIS identifies mitigation measures. The first is to conduct further analyses to finalize the dock design details and proposed pipeline near the shoreline and confirm that the dock structure at the marine terminal is designed to withstand slope failure triggered by an MCE earthquake. In addition, potential deformation of the ground surface along the river embankment during installation of ground improvements should be checked and observed deformations should be monitored. However, the FEIS concluded that, even with these mitigation measures, structural failures could occur and an oil spill could result. It is not possible to fully mitigate the risk of an earthquake and subsequent oil spill, and the adverse impacts will not be lessened.

⁶⁹ FEIS 3-47.

⁷⁰ The FEIS used a Maximum Considered Earthquake (8.9), which it stated would have a 2 percent probability of exceedance in 50 years. 3-43, Appendix C2. Section 3.1.1.

⁷¹ FEIS 3-50 fn 4.

Conflict with Council’s SEPA Policies. The Council’s substantive SEPA policies are in WAC 463-47-110. The significant unavoidable adverse impacts of an earthquake and spill are inconsistent with the following substantive SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;⁷²
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;⁷³
- Preserve important historic, cultural, and natural aspects of our national heritage;⁷⁴ and
- The council shall ensure that presently unquantified environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations.⁷⁵

The Council’s Conclusion. The FEIS conclusions were based on modeling of large earthquakes at the VEDT. For each of these differences between the FEIS and the adjudication, the Council concludes that the expert testimony at the adjudicative proceeding is more reliable in determining the outcome of an earthquake at the VEDT for the reasons set forth in the Order. Although modeling is an appropriate method to determine how structures may react during a large earthquake, based on actual experience, models are not always accurate and may underestimate the risk and results of a large earthquake.

If WAC 463-62-020 is deemed to apply to the Council’s current analysis and if Tesoro Savage is determined to have established compliance with that rule, the FEIS nonetheless provides sufficient supports for the Council’s exercise of substantive SEPA authority to determine that the VEDT poses an unacceptable risk of seismic failure.

2. Operational and Security Risks Associated with Normal Operations

The Council next evaluates the operational and security safety of the VEDT operations under normal conditions.

Operations facility safety is the organized efforts and procedures for identifying workplace hazards, and reducing accidents and exposure to harmful situations and substances. It also includes training of personnel in accident prevention, accident response, emergency preparedness, and use of protective clothing and equipment. Site security means fundamental security measures taken to protect against external threats, such as terrorism, including access controls, communications, restricted areas, cargo handling and monitoring, training, and incident reporting required in applicable law.⁷⁶ The adjudication found that site security and operational safety with normal

⁷² WAC 463-47-110(1)(b)(i)

⁷³ WAC 463-47-110(1)(b)(iii)

⁷⁴ WAC 463-47-110(1)(b)(iv)

⁷⁵ WAC 463-47-110(1)(d)

⁷⁶ PFT of Sawicki 10.

operations do not pose an inordinate risk to the public interest.⁷⁷ The FEIS did not identify any impacts or mitigation for operations or site security of the VEDT operations under normal conditions.⁷⁸

The Council finds that from a routine operational and site security standpoint, the VEDT does not pose an inordinate risk to the public interest. However, the Council will move the potential impacts of nonroutine events, such as earthquakes and spills into its balancing discussion, based on the analysis found in other sections of this Report.

3. Rail Operations

The Council looked at rail operations at the VEDT. The examination included the risk of a derailment arising from track construction and rail-related operational safety, the risk of oil spills from derailed trains, and the risk of oil spills associated with crude oil unloading from the trains at the VEDT site. The Order finds that the guardrails in the approach track, and the general safety provisions related to rail construction and maintenance, will significantly reduce the risk of a derailment. Given the low risk and the slow speed, the potential for an oil spill due to a derailment is low. In addition, although the total volume of crude oil proposed to be unloaded from trains raises concerns about overall risk, given the safety equipment, the overall risk of a spill associated with unloading is low. The FEIS also found that the frequency of a spill would be low, and if it occurred, the spill would likely be small.⁷⁹ Therefore, the Council finds that the risk of an occurrence stemming from rail-based activities resulting in an oil spill is remote.

B. Rail Route Operations

Rail traffic associated with the VEDT raises the potential for impacts to public health, safety, property, and the environment in four broad areas: derailments and accidents along the rail route, fire risks along the route, landslide risks along the route, and the temporary blockage of at-grade crossings.

The ASC says that at full operation, the VEDT will be served by four inbound unit trains per day, each composed of 100 to 120 tank cars and each, approximately one-mile long inbound train per day, based on 1,713 trips anticipated per year.⁸⁰ We consider new rail activity generated by the VEDT to be an added impact, as Tesoro Savage confirmed that existing rail traffic will not be displaced.⁸¹ The Council concludes that there will be an additional 4.7 incoming train trips per day, on average, generated by the VEDT. But for the VEDT, there would not be increased rail traffic.

The Council believes that regardless of fluctuations in other rail traffic on the route, new rail activity generated by the VEDT is a significant added impact because it represents an estimated

⁷⁷ Order page 40. However, the Council did find that the potential impacts from nonroutine events does pose a risk to the public interest.

⁷⁸ FEIS Section 2.4.3 (2-77 – 2-79) and Table 3.8-2.

⁷⁹ FEIS page 4-99, and Table 4.7-3.

⁸⁰ Ex. 0001-000740-PCE.

⁸¹ Tr. 1539, vol. 7.

increase of 280 percent to 430 percent in the number of inbound unit trains carrying Bakken crude oil or bitumen on the rail route, compared to the current 10 to 18 per week estimated by BNSF.⁸² Therefore, the Council may consider the impacts from the increased CBR traffic that will transverse Washington, as this is a direct result of the VEDT.

The Council looked at the causes and probability of derailments, along with the resulting impacts.

1. Causes of derailments

The Council reviewed the causes of derailments.

Track conditions. According to the testimony of Robert Chipkevich, a rail safety expert, Federal Rail Administration data show that track conditions are the most frequent source of derailments.⁸³ In addition, BNSF tracks have been involved in a reasonably large number of mainline rail accidents nationally. From 2012 to 2015, BNSF track has been involved in 491 mainline rail accidents nationally, second to Union Pacific Railroad's 599 accidents for the same time period.⁸⁴ The Council is persuaded that track conditions are a frequent source of derailments.

While BNSF has a well-developed system of inspection and monitoring to identify potential problems, the evidence shows that even with track inspections, derailments are expected. Failure to find defects has been identified by the NTSB as a cause of rail accidents nationally, sometimes resulting in significant spills, evacuations, fatalities, or fires.

Landslide risk. Timothy J. Walsh, Assistant State Geologist at DNR,⁸⁵ stated that the Columbia River Gorge is among the most landslide-prone areas in the state and that significant portions of the BNSF tracks in that area are built atop past landslides.⁸⁶ Therefore, landslides that can derail trains or deform tracks also pose a specific risk to trains running through the Columbia River Gorge. Landslide risk is discussed in more detail later in this section.

Tank cars. Longstanding legacy DOT-111 tank cars that have been used to transport oil, ethanol and other materials with 7/16 inch thick tank shells are required by federal law to be phased out in 2018.⁸⁷ Newer CPC-1232 cars, developed by the rail industry in response to ethanol accidents, with 1/2 inch shells and protected valves, must be phased out in 2020 (or 2025 if they are jacketed).⁸⁸ The new tank car standard, DOT-117, requires 9/16 inch shells using enhanced steel, 11-gauge thickness jacketing around the shell, head shielding, and provisions for thermal protection, including a modified bottom outlet valve.

Tank car improvements will improve safety,⁸⁹ but there is disagreement about the extent

⁸² City of Vancouver's Closing Br. 17; Ex. 3138-0003-VAN.

⁸³ Tr. 2367, vol. 10.

⁸⁴ Tr. 2401-05, vol. 10; Ex. 3109-0001-0014-VAN.

⁸⁵ PFT of Walsh 1.

⁸⁶ Tr. 3351, vol. 14.

⁸⁷ PFT of Chipkevich 24, Tr. 1625, vol. 7.

⁸⁸ PFT of Chipkevich 24, Tr. 1626, vol.7.

⁸⁹ Tr. 2394, vol. 10.

of the improvement that is possible. And while tank car shells, valves, and brakes are improving over time, those improved tank cars still derail and cause spill incidents. According to the Pipeline and Hazardous Materials Safety Administration (PHMSA), the DOT-117 model provides only a 21 percent total risk reduction over the unjacketed CPC-1232, and only a 10 percent risk reduction over the jacketed CPC-1232. DOT-117s have a puncture velocity of only 12.3 miles per hour, and are designed to withstand pool fires for up to only 100 minutes and torch fires for up to 30 minutes. Tank cars with ¾ inch shells similar to the DOT-117 model have punctured in accidents. Finally, Tesoro Savage’s new commitment to use only new DOT-117 models may not be permanent, but only as long as its use of that model rail car remains economically competitive.⁹⁰

The Council does agree that safety improvements reduce risk, but given the extensive damage that could occur, the risk is significant.⁹¹

2. Rail route accident risk

Based on the adjudication testimony of proponent witness Dr. Christopher Barkan, one inbound train derailment will occur in Washington every 2.4 years on average somewhere on the Washington route, which is similar to high level national projections by PHMSA, which when interpolated to the train-miles involved in this proposal, without further safety improvements, would project an inbound derailment in Washington every 1.2 years. Dr. Barkan projects spills will occur from inbound derailments in Washington every 6.4 years. These equate to an inbound derailment approximately every 10 months and one spill every 2.1 years over the full project route. In addition, he projected that there would be a medium-sized crude oil release of 30,000 gallons or more on the Washington route every 23 years, and a large release of 92,000 gallons on the Washington route every 110 years.⁹²

Dr. Barkan’s projection that derailments will involve an average of 12.7 tank cars also appear reasonable because it is approximately halfway between the historical average of 18 derailed cars in the recent North American crude and ethanol accidents listed by opponents, and the U.S. projection of five by PHMSA. For the size of spills resulting from these derailments, the Council did not find Dr. Barkan’s estimates consistent with the historical record of CBR spills that have occurred, or the degree to which new safety requirements are projected to improve results as estimated by PHMSA, the federal agency promulgating those requirements. Applying estimates based on past incidents, safety improvements to tank cars as anticipated by PHMSA, and the projected number of tank cars involved per derailment for this proposal, results in a projected average spill of 82,500 gallons for this proposal, which is similar to PHMSA’s projected national average spill size of 83,602 gallons per mainline derailment.

Robert Chipkevich provided a listing of 24 crude oil and ethanol train incidents involving release of tank car contents in the United States and Canada since 2006, taken from NTSB,

⁹⁰ Tr. 5139, vol. 22.

⁹¹ The Council takes notice that federal requirements can change, as seen in the December 4, 2017 announcement by the U.S. Department of Transportation to roll back a 2015 safety rule that would have required trains carrying highly explosive liquids, which include crude oil, to have electronically controlled pneumatic brakes installed by 2021.

⁹² PFT of Barkan 5-6, 10.

PHMSA, FRA, and Transportation Safety Board of Canada reports. He noted that almost three-quarters (71 percent) of total tank cars involved in the incidents released oil, 442 tank cars derailed and 314 tank cars released cargo. The average number of cars derailed in the 24 accidents is 18.4 and the average number of cars that breached is 13. A total of 6,498,602 gallons of product were released in the 24 accidents. The average release per accident was 270,775 gallons, which is the equivalent of about 30 gasoline cargo tank trucks. Ten of the 24 accidents had releases of 245,336 gallons or greater, the equivalent of 27 gasoline cargo tank trucks.⁹³ Seventeen of the 24 incidents occurred at speeds of 40 mph or less, eight at speeds of 25 mph or less, and two at 10 mph or less.⁹⁴ Twenty of the 24 train derailments (83.3 percent), resulted in a fire.⁹⁵

The FEIS has higher confidence in the mitigation measures agreed upon by Tesoro Savage and BNSF. The FEIS finds that the estimated average annual frequency or probability of rail accidents of various kinds involving unit trains bound for the VEDT, which may or may not result in spillage, is 0.145 (low estimate) to 0.588 (high estimate). This calculation is based on an assumption of 634,662 annual inbound loaded train-miles in Washington resulting from four trains arriving daily at the proposed Facility. The low and high estimates reflect the adjusted accident probabilities considering the degree of confidence in safety factors such as enhanced braking, track upgrades, and use of DOT-117 tank cars.⁹⁶ Derailments of loaded inbound trains are estimated to occur on average every 2.6 to 8.7 years in Washington.⁹⁷

The accident probability analyses used in the FEIS and by Dr. Barkan in the adjudication both used long-term general rail freight accident data to derive its projections rather than CBR accident data, which is more difficult to isolate in accident records. However, the FEIS also includes data indicating that nationally CBR derailments have occurred as many as 28 times more frequently per train-mile than general rail freight derailments, suggesting accident frequencies projected in the FEIS and adjudication for this proposal may be substantially underestimated.⁹⁸

The FEIS projects spills from derailments in the rail corridor will be less frequent but much larger in size than projected in the adjudication record. The annual spill frequency of any volume from loaded trains traveling to the VEDT is estimated to be 0.021 crude oil spills per year. This translates to a 1-in-48 chance of a spill each year on the Washington portion of the rail route. In addition to crude oil spills, 0.0137 diesel spill per year (from the locomotives) is also projected, which is the equivalent of a 1-in-73 chance of a spill each year.⁹⁹ The FEIS projects that the medium spill size will be 9,280 bbl, or 389,000 gallons. A spill of 20,000 bbl or more, or 84,000 gallons, is projected every 480 years on the Washington portion of the corridor, in contrast to Dr.

⁹³ PFT of Chipkevich 13.

⁹⁴ Tr. 2393, vol. 10.

⁹⁵ PFT of Chipkevich 18.

⁹⁶ FEIS 4-151.

⁹⁷ FEIS 115, Appendix E 115.

⁹⁸ FEIS 57, Appendix E, Table 25 reports national general freight derailments at 0.6475 per million train miles from 2005-2015. Table 31 at 60 reports 0.0183 estimated national CBR train derailments per unit or key train transits 2008-2015, based on 42,336 transits. 1000 mile average CBR transit length assumed (Tr. 4743, vol. 20.) Table 25 also reports the Washington and national mainline rail networks have had similar derailment rates since 1975, almost identical over the past decade.

⁹⁹ FEIS 4-151.

Barkan's projection that such a spill would only occur every 20,176 years.¹⁰⁰ The FEIS projects that 90 percent of rail spills will be larger than 2,860 bbl, a threshold which it characterizes in its evaluation of impacts to resources as a large to very large spill.¹⁰¹

The FEIS concluded that a crude oil spill resulting from a rail incident could result in significant unavoidable impacts, depending on the size, location, and extent (e.g., duration or intensity) of the incident.¹⁰² A more-detailed discussion of the significant unavoidable impacts is in the Water Quality section below.

3. Consequence of a derailment and oil spill

The consequences of an oil spill from a derailment could be significant. Released oil can flow downhill and emit vapors. Spilled oil can reach adjacent water bodies, including by the application of water for firefighting. The Council is convinced that most future oil spills stemming from derailments, other than the smallest, will involve fire with consequences varying, depending on the location and nature of the accident, response, and other factors. PHMSA has made national projections for the frequency of high- and low-consequence crude oil and ethanol rail accidents, and estimates damages from a single accident could reach as high as \$6 billion if a large population or particularly vulnerable environmental area is harmed. The VEDT is projected to generate 21 percent of the U.S. tank car shipments used by PHMSA in its projections, so adjusting for the length of the Washington route, PHMSA's methodology would project that without additional safety improvements, the VEDT would generate one higher consequence event with at least \$1.15 billion in costs and at least 49 fatalities somewhere along the Washington route every 49 years. Even lower consequence events will result in fatalities at a rate of .048 per mainline derailment, which when adjusted to this proposal, would project one fatality from a lower consequence event every 41 years on average in Washington and once every 15 years along the full route.

In the event of a derailment and spill, response capabilities may be limited, and at times unavailable. The record suggests no locations along the corridor where the consequences from a fire or spill would be minor or modest. Public health and safety impacts include not only impacts from smoke, vapors, fire, or explosion, but also potential drinking water contamination from spills. Areas at risk include water intakes along the Columbia River for Kennewick, Pasco, and Richland, as well as numerous wells and intakes at aquifers in inland areas. Washougal and the Spokane region are each served by a sole-source aquifer. Tribal reservations and treaty ceded areas, and culturally important fishing, hunting, and other activities are at risk from rail accidents and prolonged clean-up. Derailed trains can also directly damage adjacent buildings even without a spill or fire.

4. Fire risk and consequences

If oil is released from a crude oil train, the result will likely be a fire, and larger fires may include explosions, including heat-induced tears, or in rare cases, a boiling liquid expanding vapor explosion event and subsequent fireballs. A fireball from a single tank car could produce a radiant

¹⁰⁰ FEIS 4-146 to 4-148, PFT of Barkan 6.

¹⁰¹ FEIS 4-149, and Appendix E 125.

¹⁰² FEIS 4-227.

heat area within 2,000 feet lasting 10 to 20 seconds. There are 19 cities and towns along the Washington rail route, including two of the state's four largest cities, and an unknown number along the full corridor. Topographic and vegetative conditions in large portions of the rail corridor may increase the likelihood of fire. Much of the route in central and eastern Washington is dry in the summer and fall months to the point that recent wildfires have been started not only by derailments, but also from wheel sparking and carbon emissions from normal train travel, and even from track maintenance activities.¹⁰³ For the rail corridor outside of Washington, the increased proportion of forest and woodland cover could increase fire risks.¹⁰⁴

Municipalities and rural populations along the route will be placed at risk of a crude oil spill and fire. Public health and safety impacts include not only impacts from smoke, vapors, fire or explosion, but also potential drinking water contamination from spills. Washougal and the Spokane region are served by a sole-source aquifers. Tribal reservations and treaty ceded areas, and culturally important fishing, hunting and other activities are at risk from rail accidents and prolonged clean-up. The Washington route includes long stretches along the Columbia River and Sprague Lake, as well as crossings of smaller waterbodies, in which an oil spill could have significant environmental consequences. Derailed trains can also directly damaging adjacent buildings even without a spill or fire. Homes are within 60 feet of track in much of the Vancouver corridor, and buildings are below the elevated track in Spokane, and derailed trains can directly damage adjacent buildings without a spill or fire.

The consequences of recent accidents that have occurred in the United States and Canada illustrate the potential consequences of a crude oil spill and fire along the rail route for the VEDT. Tesoro Savage argues that a rail incident attributable to increased rail traffic serving the VEDT is "unlikely" and offered no evidence to rebut the considerable evidence about the likelihood and potential for devastating results from derailments, spills, and fire along the rail route.

Taken together, this evidence supports a finding that fires are a likely accompaniment to derailments and that the topography and vegetation along the route pose a real, albeit unquantifiable risk of urban fires or wildfires, with significant damage to the environment and other building structures.

5. Landslide risks and consequences

Washington has a long history of landslides that occur without warning. Areas that have been the most active in the recent past include the Columbia River Gorge, which houses some of the world's most famous landslides and which forms a significant portion of the VEDT rail corridor. There are two active faults along the VEDT rail route. The BNSF tracks are built on top of landslide deposits in a significant area of the Gorge, and a number of landslides in the Gorge are still moving. A great deal of the ground under the track is landslide deposit, which makes the area more susceptible to landslides.

There has been insufficient analysis of landslide hazards along the rail corridor. However, a landslide that hits a train could cause a derailment by forcing trains to stop suddenly or by

¹⁰³ Tr. 3392-93, vol. 14.

¹⁰⁴ FEIS 4-176.

damaging tracks. Rapidly moving landslides have hit and derailed trains as they passed by. Creeping landslide movement can also affect the ground upon which the tracks are built and cause distortions that gradually build.

The Council finds that landslides along the rail route pose a real albeit unquantifiable risk of hitting and derauling the VEDT's CBR unit trains or causing track distortions that could cause a derailment.

6. Emergency response capabilities along the rail route

Emergency response plans and assets exist at various locations throughout the rail corridor, but face a range of limitations in addressing the derailments, spills, and fires that are projected to occur repeatedly throughout the lifetime of VEDT.

Vancouver and Spokane provided evidence of their limited emergency response capabilities. In addition, many of the jurisdictions along the rail route are small, with volunteer staff, and limited equipment and training. And DNR asserts that its firefighters are not prepared to address additional wildfires given their restrained resources. Testimony from Vancouver, Spokane, and DNR indicates that, even though they are large first responding agencies, they are staffed and equipped for the risks they most typically face, not oil train fires, and are constrained by budget limitations.¹⁰⁵

Mutual aid allows for pooling of resources, but has limits. Vancouver and Spokane lack mutual aid agreements for HAZMAT with nearby larger or better-resourced public agencies because of legal limitations. For all responders, arrival of conventional mutual aid from governmental and railroad sources may be limited or delayed by distances involved or transportation access. Mutual aid may be simply unavailable on some days. For example, if the Mosier incident had occurred one month later, there would have been no response to calls for mutual aid because supporting agencies were involved in larger fires in a nearby city.¹⁰⁶ Responders who do arrive on site face a host of challenges, including the fact that crude oil fires typically require a noninterventionist response in which fires burn for the initial hours while they strive to protect nearby persons, property, or the environment.

Tesoro Savage looks to the wider resources available in the public and private sector. BNSF has trained approximately 2,700 first responders in Washington on overall HAZMAT training, and 250–260 on crude oil response in the past three years. Local entities and responders are reimbursed for the costs.¹⁰⁷ However, local entities are not reimbursed for the cost of backfilling positions while staff is at training.¹⁰⁸ And as stated above, wider resources may not be available, may be delayed, and may be limited.

Even if emergency response personnel and assets are fully available, rapidly deployed to the incident, and seamlessly managed, the record contains no demonstration that this would

¹⁰⁵ Tr. 2721

¹⁰⁶ Tr. 2316:22-2317:19

¹⁰⁷ Tr. 1499-1501, vol. 7.

¹⁰⁸ Tr. 2765, vol. 12.

necessarily be sufficient to mitigate impacts from the predicted accidents to an acceptable net outcome. There is similarly no analysis showing the historical CBR accidents that have occurred elsewhere involving harm to persons, property, or the environment would have had better outcomes had they occurred along this rail corridor because of better emergency response here. With the exception of the Mosier accident, there is also no evidence or argument provided that recent oil train accidents with “good” outcomes turned out that way because of a level of emergency response that can be expected consistently in the future. In the case of Mosier, assertions that the outcome was “very good” appear to be based on the coordinated performance of the responders and lack of fatalities or injuries, not a full accounting of impacts. Proponents similarly describe rail incidents in Lynchburg, Virginia, and Mount Carbon, West Virginia, as having “successful outcomes” because fires were extinguished without the use of foam in those cases, but with no mention of net consequences, which were significant.

Taken together, this evidence supports a conclusion that emergency response capacity does not exist along the rail route to ensure timely and effective response to rail emergency sufficient to protect lives, public safety, property, and the environment.

The FEIS detailed the preparedness and responsive capabilities for an emergency along the rail corridor in Chapter 4, Section 4.5, and identified the many gaps in capabilities of emergency responders along that area. Tesoro Savage did commit to some additional operation and design measures.¹⁰⁹ The FEIS did not, however, draw a conclusion as to whether these commitments eliminate the gaps in emergency response capabilities. However, the FEIS concluded that emergency response preparedness could be the best possible and it would still not eliminate severe impacts from certain spills.

7. At-grade crossing impacts

In addition to accident-based impacts, additional burdens on the system result in other nonaccident impacts, such as those at at-grade crossings. Each additional train generates additional incremental vehicle delays at at-grade crossings. The analysis of the 10 busiest at-grade rail crossings in the Washington corridor concluded there would likely be sufficient queue space for vehicles to wait during gate downtimes. It also concluded that there are alternative crossing routes. Therefore, it was projected that rail traffic would create no additional crossing delays. In all but one intersection, the projected delay would not exceed the maximum single delay currently experienced from an existing train.

However, these 10 at-grade crossings likely represent only a small fraction of at-grade crossings on the route, as BNSF indicates it has 25,900 such crossings on its full 32,500-mile network, suggesting there would be approximately 306 at-grade crossings on the inbound Washington route if it has a similar ratio, and perhaps a roughly comparable number on the outbound Washington route as well. There are a reported 111 at-grade crossings in Vancouver and Spokane alone, although some may be on other tracks not serving the terminal.¹¹⁰

Ryan Lopossa, Senior Civil Engineer for Vancouver, characterized the added delay as

¹⁰⁹ FEIS 4-97.

¹¹⁰ Ex. 3088-0064-VAN.

significant from a traffic engineering perspective, explaining that each train will create a 5 minute and 8 second delay at each Vancouver at-grade crossing, and because there will be four trains each day at each at-grade crossing, the total delay from inbound trains at each crossing is 20–21 minutes each direction. If trains go outbound through the Vancouver corridor (which is a possibility), the total delay of 42 minutes would occur at each Vancouver crossing, in comparison to the current 15 minutes at the Vancouver intersections.¹¹¹

Dr. Frank James characterized the increased traffic delays of 15 percent to 26 percent at 200 Washington intersections as a moderate to major impact, with potential moderate to major impacts on minority and/or low-income populations, and potentially major impacts on emergency responders and human health.¹¹² The five to 13 minutes of added emergency response time projected by Tesoro Savage expert Brian Dunn at the 10 crossings he examined likely underestimates impacts for the balance of crossings along the corridor because those 10 crossings were the busiest, so alternative routes are more likely to be available.

Regardless of the appropriate estimated delay along the route, Tesoro Savage has not provided adequate information about impacts that rail crossing delays have for emergency services. Taken together, this record supports a conclusion that Tesoro Savage has not sustained its burden of demonstrating that VEDT trains won't impact the public interest by blocking at-grade crossings in Washington and the rest of the rail route.

The FEIS also looked at delays at at-grade crossings due to the additional rail traffic related to the VEDT.¹¹³ The delay experienced will depend on many factors, such as time of day, speed of train, and length of train. Based on the analysis, the FEIS concluded that an increase in vehicle delay caused by gate downtime associated with trains traveling to and from the VEDT would be experienced at about 200 at-grade public crossings along the 445-mile Columbia River Alignment. While the number of vehicles that would be affected at each crossing location would be relatively small, based on a uniform traffic distribution, a much higher volume of traffic could be affected when trains pass through at-grade crossings in more urbanized areas during peak commuting periods.¹¹⁴

The FEIS also looked at how delays at at-grade crossings could impact emergency response time. Delays to emergency response time can result in harm to human health and property. The FEIS found that:

[i]mpacts to individuals and communities along rail corridors from delays in emergency response can result in deterioration in expected outcome for ambulance patients, worsening of fire damage from delayed fire truck response, reduced likelihood for apprehension of suspects from delayed police response, and additional stress for emergency responders and victims (FRA 2006). A conservative estimate of the gate downtime from the four to eight unit trains per day associated with the proposed Facility suggests that overall gate downtime could increase between 15 and 26 percent along the Columbia River Alignment. While emergency service providers currently have

¹¹¹ Tr. 2288, vol. 10.

¹¹² PFT of James 11, 12-14.

¹¹³ FEIS 3-479 – 3-485.

¹¹⁴ FEIS 3-481.

the potential to be delayed by existing train traffic, an increase in the current level of delays could constitute an impact to emergency responders. For additional discussion of gate downtime impacts, see Section 3.14.3.¹¹⁵

The FEIS concluded that significant unavoidable impacts to public services and utilities associated with the normal rail traffic related to the VEDT. EFSEC staff did not identify any mitigation that could be imposed by the Council to address impacts to public services and utilities identified in the FEIS.¹¹⁶

8. SEPA substantive authority for public service impacts due to at-grade crossing delays

Significant Adverse Impacts. The FEIS found significant unavoidable adverse impacts to public services and utilities associated with the normal rail traffic related to the VEDT. Additional trains would increase road traffic delays by 21 minutes per at-grade crossing per day (or by about 14–26 percent at Columbia River Alignment), which could increase emergency response times. Impacts to individuals and communities along rail corridors from delays in emergency response can result in deterioration in expected outcome for ambulance patients, worsening of fire damage from delayed fire response, reduced likelihood for apprehension of suspects from delayed police response, and additional stress for emergency responders and victims.¹¹⁷ Although the risk may be considered low, the adverse impacts are severe.

Mitigation Measures. The FEIS does not identify any mitigation measures that can be implemented by direction of the Council. A few mitigation measures were identified to reduce impacts to public services and utilities that could be implemented or required by other parties.¹¹⁸ These include creating a real time GIS-based tracking program for CBR trains, rerouting high traffic routes, and/or installing grade separated crossings. These measures, however, are not considered effective mitigation because they cannot be implemented by Tesoro Savage or required by the Council. Thus, delays in emergency response are significant and unavoidable.

Conflict with Council's SEPA Policies. The Council's substantive SEPA policies are in WAC 463-47-110. The significant and unavoidable adverse delay in emergency response times caused by normal rail traffic associated with the VEDT is inconsistent with the following substantive SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;¹¹⁹
- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings;¹²⁰ and

¹¹⁵ FEIS 3-506 – 3-507.

¹¹⁶ FEIS 3-507.

¹¹⁷ FEIS 3-506.

¹¹⁸ FEIS 3-507.

¹¹⁹ WAC 463-47-110(1)(b)(i)

¹²⁰ WAC 463-47-110(1)(b)(ii)

- Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities;¹²¹

C. Vessel Operations

While the VEDT may receive vessels of several sizes¹²² from smaller vessels, it is anticipated to ship crude oil on a range of large tanker ships, with 47,000 dead weight tons [DWT] Handymax vessels anticipated to account for approximately 80 percent of all calls, and 105,000 DWT Aframax and 165,000 DWT Suezmax vessels accounting for the remainder.¹²³ The size of tanker vessels on the Columbia River is currently limited to 300,000 bbl of cargo. However, Tesoro Savage is seeking to increase this carrying capacity limit from 300,000 bbl to 600,000 bbl.¹²⁴

Risks at the dock. As the risk of a vessel colliding with a vessel at the VEDT dock is between once every 25,000 years to once every 165,000 years, the Council concludes that the risk of a vessel colliding with a vessel at the VEDT dock is remote.

Spills of varying sizes could occur during cargo loading at the dock, but the risk is small. Oil spill containment measures may be sufficient for some spills but insufficient for others. None of the analyses takes into account the oil spill risk associated with earthquakes that reasonably could occur while a vessel is loading cargo for 16–20 hours at the dock. Based on this record, Tesoro Savage has not demonstrated that spills are so unlikely and capture infrastructure so uniformly effective that oils spills — even spills of significant size — will not enter the Columbia River.

Booming. Booming is a mitigation measure to reduce the risk of oil entering the water. The Council finds that pre-booming will either not occur or will be ineffective for much of the year primarily due to current speed. The proposed stand-by booming is a helpful mitigation measure, but with only limited effectiveness. It is also possible for loading to occur during times when a small craft advisory has been issued because of conditions on the river. Assuming pre-booming would not take place when a small craft advisory for wave conditions has been issued, the Council finds it implausible that booming employed as a mitigation measure would be effective if a spill occurred under those conditions. The adverse conditions would likely increase the time to deploy a mitigation boom, and the effectiveness of the boom would be questionable. The ability to boom downriver if a spill occurs during a small craft advisory issued for wave conditions is also questionable. It may be many miles before conditions would allow a boom downriver to be deployed. Even if the safety of the tanker that is being loaded is not in question, the Council must also be cognizant of environmental risks associated with a spill.

The FEIS also looked at the effectiveness or lack thereof of booming. It found that booms become increasingly ineffective when currents exceed 0.7 knots (0.81 miles per hour). (A previous

¹²¹ WAC 463-47-110(1)(b)(vi)

¹²² Oil tankers are described either in terms of dead weight tons (excluding the weight of the ship) or by barrels of oil carried.

¹²³ The applicant's DNV GL analysis assumes 79 percent Handymax/20 percent Aframax/1 percent Suezmax (Ex. 0120-000005-TSS), while the FEIS assumes 80 percent/15 percent/5 percent (FEIS 4-187)

¹²⁴ PFT of Bayer 6; PFT of Haugstad 13.

study conducted for Ecology [Etkin et al. 2006, 2007] found that currents in the Port of Vancouver exceed the capabilities of booms to effectively contain oil about 50 percent of the time.)¹²⁵

Transit risks on the river. Improvements in navigation technology, vessel operations, and vessel design all increase the safety of vessels on the Columbia River and reduce the risk of an incident. Nonetheless, DNV GL predicts that the VEDT will increase the risk of marine incidents for current traffic on the Columbia River by approximately 2 percent. In contrast, the FEIS stated that vessel transits would represent a 4 percent annual increase in incidents.¹²⁶ An incident of any type (including those that do not result in a spill) for a 47,000 DWT tanker is estimated to occur approximately once every 0.8 years. The estimated incident rate for 105,000 DWT tankers is once every three years. The estimated incident rate for 165,000 DWT tankers is once every 57 years.

The Council is persuaded that the potential amount of crude oil that can be spilled under current loading limitations is significant, which could lead to very serious problems. The projected average spill volume of 63,463 bbl equates to 2.7 million gallons, approximately 95 percent of the entire contents of a 100-car oil train. There is no evidence in the record of a spill this size ever occurring on the Columbia River, and under the proposal it would have a two-thirds chance of occurring during the assumed 20-year life of the project. Such a spill would be 16 times larger than the 1984 Mobile Oil spill, which involved 3,925 bbl and is the only other major Columbia River oil spill noted in the record.

The FEIS projects vessel spills in the Columbia River from project vessels approximately twice as frequently as the applicant's analysis in the adjudication, but with spills sizes roughly one-third as large. The FEIS project spills of any size are anticipated once every 17 years¹²⁷, with anticipated sizes varying slightly depending on whether Bakken crude or dilbit is involved, and modestly depending on the tanker vessel size and type of accident. The median spill size for the most common accident anticipated, a collision involving a 47,000 DWT Handymax vessel carrying Bakken crude, is 21,898 bbl, or 919,716 gallons.¹²⁸ The FEIS also raises doubts about the effectiveness of escort tugs to significantly mitigate spill risk, noting that limited river width does not provide maneuvering room for tugs to prevent groundings in an emergency.¹²⁹

Similar to the adjudication analysis, the FEIS did not project the frequencies or size of spills from project vessels that occur beyond the Columbia River in open seas or as vessels approach refineries within Puget Sound, California harbors, or elsewhere.

Ballast Water Management Issues. In the adjudication, the Council found that notwithstanding VEDT compliance with ballast water management requirements, there is some increased risk for the introduction of invasive species in the Columbia River ecosystem.

Vessels arriving at the VEDT to load crude oil would likely be in ballast, having previously flooded their ballast water tanks to maintain the ship's stability. Ballast water has the potential to

¹²⁵ FEIS 4-12.

¹²⁶ FEIS Appendix T at 45.

¹²⁷ FEIS Appendix J at 15

¹²⁸ FEIS 4-190

¹²⁹ FEIS Appendix J at 39

transport nonnative species. The vessel ballast tanks would contain clean seawater that has either been treated through an onboard ballast water treatment system or collected during a mid-ocean ballast exchange. When taking on ballast, organisms present in the surrounding water that are small enough to fit through the ballast intake screen can be taken onboard. During discharge, organisms in the ballast water may be released; these organisms could include nonnative, nuisance, and exotic species that could cause damage to the aquatic environment.¹³⁰

To prevent the release of invasive species, all ships that call at the VEDT would be required to adhere to strict federal and state regulations governing the discharge of ballast water.¹³¹ However, the FEIS found the potential for introduction of invasive species is minimal.¹³²

In addition, the FEIS found that salinity changes from ballast water could also affect invertebrates and fish near the VEDT. The impact of daily exposure to increased salinity would primarily occur in the benthic environment immediately around the marine terminal and adjacent areas downstream, with impacts gradually decreasing with distance downstream of the VEDT marine terminal berths. Benthic communities exposed to daily increases in salinity could decrease in species abundance and biomass or change in species composition. Some areas of the Columbia River estuary downstream of the VEDT site within the estuarine mixing zone contain benthic communities which have adapted to frequent changes in salinity.

Although minimal, the record supports a finding that ballast water management could impact water quality and aquatic species.

Wake stranding of fish.¹³³ The adjudication record found that unique aspects of Barlow Point make it very susceptible to wake stranding although wake stranding can also be a seasonal issue at Sauvie Island and County Line Park. The Order noted the effects of vessel speed and wakes on wake stranding. Increasing the size and speed of a vessel increases the extent of the drawdown of the water level along the vessel and subsequent run-up of the wave. The lowering of the water surface below the still-water level is a function of ship speed, and ship speed is the dominant factor influencing draw-down. Ship speed is expected to have the greatest effect on ship-wave generation. It is therefore reasonable that relatively small changes in ship speed could result in significant changes in the incidences of wake stranding. Slowing tankers down before they reach Barlow Point could significantly reduce the wake stranding of juvenile Lower Columbia Chinook salmon. These fish are listed as threatened under the Endangered Species Act.

The FEIS also looked at wake stranding. It found:

In summary, the phenomenon of wake stranding in the Lower Columbia River is not completely understood. Based on the research available, the increase in deep-draft vessel traffic associated with the proposed Facility could impact juvenile and small fish, particularly subyearling Chinook, present in the shallow

¹³⁰ FEIS 3-272.

¹³¹ FEIS 3-272.

¹³² FEIS 3-272.

¹³³ Wake stranding is where aquatic species are lifted by a wave onto a shoreline and are stranded. FEIS fn 9, 3-10.

margins. Effects could occur along 33 non-contiguous miles of the 103.5-mile vessel corridor (207-mile combined shoreline; 16 percent), with the highest potential for impact along 8 miles (4 percent; ENTRIX 2008). However, since the fish stranding study was limited to known susceptible sites, information on the spatial and temporal extent of fish stranding and an evaluation of fish behavior along the nearshore of the vessel corridor is required to improve the understanding of fish stranding from vessel wakes. The number of fish that may be stranded each year is “likely a substantial underestimate” (USACE 2015b). With the proposed increase in deep-draft vessels, subyearling Chinook could experience long-term impacts during outmigration depending on their location and timing when vessels pass.¹³⁴

Because of this impact, the FEIS identified mitigation measures to address impacts to aquatic species. For wake stranding, these are to conduct a fish stranding study in consultation with appropriate state and federal agencies; develop a mitigation and monitoring plan for fish stranding based on the study results; and develop monitoring programs to follow up on the effectiveness of the mitigation. In addition, a mitigation measure related to reducing vessel speed at locations identified as highly susceptible to wake stranding was identified but deemed to not be an effective mitigation as it is outside the measures that the Council can require.

The Council looked at other effects from wakes.¹³⁵ The Council concludes that an increase in vessel wakes will not contribute to additional shoreline erosion or impact vegetation. There may be minor, but not long-term, impacts to the benthic community.

D. Water Quality

1. Adjudication proceeding

As described in the two sections above, there is a strong potential for an oil spill resulting from a train derailment or a vessel accident. Depending on the incident, whether or how large an oil spill will occur will vary. In any event, there is a risk of an incident where the oil spill will enter the Columbia River. Therefore, the Council must analyze the impact of an oil spill on water quality.

In this regard, as discussed later in this report, Tesoro Savage has argued that WAC 463-62-060 sets wastewater discharges permit requirements as the ceiling for the Council’s consideration of water quality issues unless the Council exercises substantive SEPA authority. Tesoro Savage asserts that the VEDT will comply with these permits during construction and in normal operations of the facility.¹³⁶ In the Council’s view, chapter 463-62 WAC does not apply to the Council’s present evaluation of Tesoro Savage’s ASC. For the purpose of this Report, however, the Council accepts as true Tesoro Savage’s statement that it will comply with its water quality permits. In this particular context, however, Tesoro Savage suggests that oil spills that are not within the permitting regime but will be adequately addressed through other spill planning and response efforts. In making this argument, Tesoro Savage invites the Council to consider

¹³⁴ FEIS 3-281.

¹³⁵ FEIS ES-25 (Earth 3.1, Water 3.3, Shoreline vegetation 3.4, 3.13), and ES-6-2.

¹³⁶ Applicant’s Post-Hr’g Br. 44.

unpermitted oil spills outside of the scope of WAC 463-62-060 without having to exercise its substantive SEPA authority. The Council agrees with this view of WAC 463-62-060.

Many state and federal laws have oil spill planning and response requirements. These planning requirements provide for a general framework of coordinated plans among federal, state, and local authorities.¹³⁷ The trajectory of the oil in the event of a spill is needed to complete oil spill planning and response requirements. The Council is convinced that Tesoro Savage's trajectory analysis understates the distance which an oil spill will travel within a 48-hour period, as it used a current speed of 1.2 knots. If the average speed of 2 knots were used in the analysis, it would have shown that oil would reach the Pacific Ocean within two days. Absent a detailed oil spill model showing otherwise, the Council is persuaded that this scenario is much more likely.

The Council also notes that Tesoro's tabletop exercise dropped the river's current speed down to 0.8 to 0.9 knots for the two spill scenarios. The Columbia River has average current speeds from 1 to 6 knots, and elsewhere Tesoro Savage used an average of 2 knots as the average current speed for planning purposes. This under prediction of current speed understates the distance an oil spill will travel, and therefore minimizes the impact on habitats and species, and the response needed.

There is substantial evidence from actual oil spills that demonstrates the potential for oil to sink, depicts difficulties in recovery efforts, and portrays impacts to the environment. The impacts of an oil spill include potential coating of the shorelines, oil in the water columns, and oil that will eventually sink. The oil spill will impact any fish in the area, such as salmon spawning or salmon migrating, as well as birds and other wildlife. In addition, there could be social, cultural, and economic impacts for those who use or rely on the river and its resources or who value the quality of a pristine environment.¹³⁸ This could include loss to commercial fishers, including tribal commercial fishers and loss for recreational fishing, with its accompanying financial impacts. These impacts can have long-term effects on water quality.

2. FEIS

As discussed in above, WAC 463-62-060 does not apply to the Council's current analysis of water quality issues and, even if it did apply, Tesoro Savage has invited the Council to consider oil spill-related water quality issues outside of the scope of WAC 463-62-060 without having to exercise its substantive SEPA authority. The Council agrees with this view of WAC 463-62-060. The Council nonetheless considers the contents of the FEIS for two reasons: 1) to determine whether it lends useful information to the Council's analysis under RCW 80.50, and 2) to determine whether the FEIS provides support for the Council's exercise of its substantive SEPA authority, should that be deemed necessary. For the reasons explained below, the FEIS lends useful information to the Council's analysis of chapter 80.50 RCW and also supports the Council's exercise of substantive SEPA authority to determine that the VEDT poses an unacceptable risk of water quality impacts.

¹³⁷ PFT of Taylor 5.

¹³⁸ Tr. 3577-78, vol. 15.

The FEIS looked at the impact if an oil spill reaches the water or happens in the water body. If a spill does reach a water body, the initial response would focus on attempting to prevent further spreading of oil on water using a variety of containment, deflective, and protective booming strategies. Where oil is sufficiently thick on the water surface, skimming or pumping operations may be used. For containment and recovery of oil to be successful, several key challenges must be overcome: is the equipment deployed in an effective arrangement and in a timely manner; are the water surface and weather conditions sufficiently calm to permit the selected equipment to function well and for the response personnel to safely operate the equipment; and is the oil amenable for recovering using the available skimmers and pumps.

These interrelated challenges commonly combine to limit the proportion of spilled oil that can be recovered to 10 to 15 percent, under optimal circumstances. Recovery rates of 3 to 5 percent are more common.¹³⁹

The FEIS found in the event of a small to medium vessel crude oil release into the Columbia River, degradation of water quality and impacts to aquatic habitats and species would result from oil contamination within the area of surface spreading and lateral and vertical movement through the water column, up to 2 RMs from the site of the spill. Affected habitats, species, and impacts would be similar to those described in Section 4.7.4 for a spill at the proposed Facility.¹⁴⁰

In addition, the FEIS did an interval spill modeling exercise along the rail corridor. At intervals spaced roughly 250 meters apart and over every watercourse traversed by the rail line, 999 releases of 22,830 bbl of crude oil was modeled. Each of the locations were modeled considering oil type and river flow conditions until all floating surface oil was eliminated through modeled fates processes. These fate processes included retention of oil on land surfaces, pooling in depressions, retention of oil on shorelines, and evaporation to the atmosphere. A majority of the modeled spills scenarios reached lakes or rivers, including the Columbia River, and a small portion of the modeled Bakken crude oil spills reached the Pacific Ocean.¹⁴¹

If the spill occurred at the mouth of the Columbia River or along the open ocean portion of the vessel corridor, it would impact the marine and estuarine environments. The area impacted and the duration of impacts could vary widely, depending on the type and volume of crude oil spilled, the spill location, water temperature, waves/currents, weather conditions, and the timing and effectiveness of initial response.¹⁴² If the spill was a large or very large event, the impact would be magnified.

Spills impacting waterbodies are not limited to spills from project vessels in transit, spills at the terminal from loading at the dock or seismic events. The FEIS includes modeling of larger rail spills (the largest 10 percent of anticipated rails spills) projecting that approximately 80 percent of these spills would reach lakes and rivers. Approximately 75 percent of such spills would reach

¹³⁹ FEIS 4-56.

¹⁴⁰ FEIS 4-204.

¹⁴¹ FEIS 4-175, Table 4.8-10.

¹⁴² FEIS 4-204.

the Columbia River if Bakken Crude is involved, 56 percent if dilbit is involved. No modeling was done for smaller rail spills.¹⁴³

3. SEPA Substantive Authority for Oil Spills

Significant adverse impacts. The FEIS found that the risk of an oil spill from the VEDT, and from trains and vessels calling at the VEDT, is a significant unavoidable adverse impact. As outlined above and in Sections 4.7, 4.8, and 4.9, the range of impacts from a spill to the built and natural environment, including water quality, may be severe, depending on the size, location, duration, and intensity of the spill. Although the risk of a spill varies by model, there is a measureable risk, and the adverse impacts would be severe.¹⁴⁴

Mitigation measures. The FEIS identifies mitigation measures to reduce the likelihood of a spill. See Sections 4.7.7, 4.8.7, and 4.9.7. Prevention is the main mitigation measure as prevention is the best form to mitigate the risk. Some or all the mitigation measures are also intended to reduce the extent of the significant adverse impacts. However, the FEIS concluded that even if these mitigation measures were implemented, the risk of a large spill, fire or explosion and the severity of the adverse impacts to human health and the environment if these events occurred, would still be a significant adverse impact. It is not possible to fully mitigate the risk of an oil spill, nor eliminate or minimize the adverse impact to an acceptable standard.

Conflict with Council's SEPA policies. The Council's substantive SEPA policies are in WAC 463-47-110. The significant unavoidable adverse risk of an oil spill, fire, or explosion at the facility, or along the vessel or rail corridor, is inconsistent with the following substantive SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;¹⁴⁵
 - Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings;¹⁴⁶
 - Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;¹⁴⁷
 - Preserve important historic, cultural, and natural aspects of our national heritage;¹⁴⁸
 - Maintain, whenever possible, an environment which supports diversity and variety of individual choice;¹⁴⁹ and

¹⁴³ FEIS 4-164

¹⁴⁴ For spills from trains, the project will increase the risk of a small spill (250 bbl) from 1 in 34 to 1 in 20. For some larger spills (15,000 bbl), the risk increases from 1 in 120 to 1 in 74. FEIS Table 4.8-9. The FEIS also concludes that the project will increase the risk of a spill from vessels operating on the Columbia River to 1 in 41 for a spill of 1,000 bbls or more. FEIS 4-189.

¹⁴⁵ WAC 463-47-110(1)(b)(i)

¹⁴⁶ WAC 463-47-110(1)(b)(ii)

¹⁴⁷ WAC 463-47-110(1)(b)(iii)

¹⁴⁸ WAC 463-47-110(1)(b)(iv)

¹⁴⁹ WAC 463-47-110(1)(b)(v)

- The council shall ensure that presently unquantified environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations.¹⁵⁰

E. Protection of Wetlands.

Adjudicative Proceeding. As noted above, Tesoro Savage takes the position that, in the absence of the Council's exercise of its substantive SEPA authority, WAC 463-62-050 sets the decisional standard for the Council's current consideration of wetlands impacts.¹⁵¹ This Council disagrees because WAC 463-62, and WAC 463-62-050, are inapplicable to the Council's present analysis. The Council will nonetheless consider whether Tesoro Savage has demonstrated compliance with this rule.

Tesoro Savage contends that the scope of the rule is limited to the general footprint of the VEDT itself and that Tesoro Savage is in compliance because no on-site wetlands will be filled and three wetlands in the vicinity will be unaffected by the VEDT's routine operations.¹⁵² Tesoro Savage contends that nonroutine spills are not covered by this rule but instead are addressed by other spill prevention and response measures.¹⁵³

The Council believes that Tesoro Savage's reading and application of the rule are incorrect. The rule makes no distinction between wetland impacts resulting from normal facility operations and wetland impacts resulting from an abnormal event like an oil spill. In all situations, the Council's intent is to achieve no net loss of wetlands. In all situations, wetland impacts are to be avoided whenever possible and, if they cannot be avoided, the impacts must be corrected by restoration, replacement, or preservation of wetlands. Wetland mitigation actions must compensate for impacts without a net loss of wetland area, and must result in a net gain of wetland functions. Nowhere does the rule default to other processes, such as oil spill prevention and response measures to fully address wetland impacts.

Tesoro Savage has not attempted to demonstrate how it would address wetland mitigation if oil spills impact wetlands or how Tesoro Savage would comply with this rule. The Council thus concludes that Tesoro Savage has not met its burden of demonstrating compliance with this rule.

The Council believes that the impact on wetlands from an oil spill can be significant. Wetlands support a wide diversity of habitats and plant communities that support many species of birds, mammals, reptiles, amphibians, fish, and invertebrates. And oil spilled in the Columbia River has the potential to damage wetlands. Most crude oils affect wetlands by the physical smothering of leaves and soils. Wetlands are likely to become oiled after a spill because wetlands are located in the upper intertidal zone where oil usually strands. Therefore, the Council believes that potential wetland impacts may create an impact on the public interest.

¹⁵⁰ WAC 463-47-110(1)(d)

¹⁵¹ Applicant's Post-Hr'g Br. 44-45.

¹⁵² Applicant's Post-Hr'g Br. 45.

¹⁵³ Id.

FEIS - Facility. The wetlands assessment completed in 2013 (BergerABAM 2013a), in accordance with the City’s Critical Areas Protection Ordinance found no wetlands in areas of the proposed Facility, but three wetlands are present within 300 feet of the proposed Facility site, all separated from the site by rail lines and/or roads.¹⁵⁴

No wetlands are present on the VEDT, and buffers for the adjoining wetlands do not extend onsite; therefore, VEDT construction would not directly disturb wetlands or involve work within wetland buffers. However, offsite wetlands could be affected by construction if stormwater runoff were not properly managed and/or through temporary changes in wetland hydrology from the installation of vibroreplacement stone columns. Perimeter control measures and BMPs would be sufficient to mitigate impacts.¹⁵⁵ In addition, vessels would operate at very low speeds near the VEDT, reducing the likelihood of impacts, and emergent wetland vegetation is absent along the north bank of the Columbia River and nearly all the north side of Hayden Island. Wetlands in the vicinity have the potential to be indirectly impacted by operations only if measures to avoid or mitigate surface water quality and groundwater quality effects are not successful. Changes to groundwater are also not expected to impact wetlands because ground improvements are located downgradient from the wetland areas, below impervious surfaces.¹⁵⁶

Rail Corridor. The rail corridor passes through or is adjacent to many wetland types, including riverine and lacustrine systems and a range of subsystems and classes (e.g., limited vegetation, emergent plants, shrub-scrub, forested, or aquatic bed). These include wetlands with natural and modified hydrology and topography, and a range of inundation categories from permanent to temporary and/or artificial. The NWI maps indicate the location and distribution of wetland types.¹⁵⁷ In normal operations, drips and leaks of very small quantities of crude oil and diesel would create a sheen on surface water immediately adjacent to the rail line, potentially including surface waters or wetlands immediately adjacent to the rail line.¹⁵⁸ An incident along the rail corridor could negatively impact wetlands. There is no proposal to comply with the wetlands protection requirement in the event of a rail incident.

Vessel Corridor. The FEIS found limited wetland impacts along the vessel corridor. Wakes from deep-draft vessels have the potential to impact wetland vegetation communities directly (i.e., breakage, uprooting) or indirectly through altered sediment patterns and erosion. The potential for these to affect wetlands would be limited to those wetlands that are close to the channel and are not shielded from wave action. These wake issues can be mitigated through reduced speed zones in sensitive areas, but the Council does not have the authority to require this action. In addition, no impacts to water resources would occur in waters beyond the three nautical mile boundary near the mouth of the Columbia River.¹⁵⁹ However, in the event of a spill, the FEIS found significant adverse impacts to wetlands, as discussed in the Water Quality section.

¹⁵⁴ FEIS 3-112, and Figure 3.3-12.

¹⁵⁵ FEIS 3-140 – 3-141, Figures 3.3-11 and 3.3-12

¹⁵⁶ FEIS 3-147.

¹⁵⁷ FEIS 3-120, and Appendix P.3.

¹⁵⁸ FEIS 3-149.

¹⁵⁹ FEIS 3-149 – 3-150.

F. Biological and Ecological Impacts

Among its rich biological resources, Washington's fish species play a critical role in the economic and cultural life of the people of the state. In particular, the salmon is of iconic importance to Washington's various cultural communities, especially its tribal peoples. In Washington, salmon has historic and cultural value far beyond its economic value in the marketplace and as a food source. Salmon is very much treasured as part of the state's identity and history.¹⁶⁰ The Columbia River is habitat for a rich diversity of species, including salmon and other endangered and threatened fish. Therefore, the health of the river is of critical importance in the Council's task of balancing the considerations involved in energy facility siting. It is important that the ecology of Washington's unique riverine environment not be damaged and that the Columbia River in particular remain as healthy and productive as possible.

Tesoro Savage contends that it has met its burden with regard to fish and wildlife impacts by demonstrating compliance with WAC 463-62-040¹⁶¹ and that additional consideration by the Council requires the Council to exercise its substantive SEPA authority. As previously discussed, WAC 463-62-040 does not apply to the Council's present evaluation, but the Council will nonetheless evaluate Tesoro Savage's contention.

Contrary to what Tesoro Savage suggests, WAC 463-62-040 does not limit evaluation of fish and wildlife impacts to the specific footprint of the VEDT. The rule is clear that applicants are to select sites that avoid impacts to endangered, threatened, or priority species and, as the Adjudication Order concludes, the choice of this particular site for the VEDT is ill-advised because of the potential for oil spills, fires, and explosions. The rule requires 1:1 mitigation for impacted habitat, which, as the Adjudication Order says, is unlikely to be possible for damage from large oil spills. Finally, the rule requires Tesoro Savage to demonstrate no net loss of fish and wildlife habitat, which the Adjudication Order concluded that Tesoro Savage had not done. As a result, even if WAC 463-62-040 applied to the Council's current analysis, Tesoro Savage has not demonstrated compliance.

Impacts on Salmon. Upper Columbia Spring Chinook are an endangered species because of their very small numbers. There is a very narrow timing window in that most of the fish pass through Bonneville Dam and other projects in just a couple of weeks. It is possible that an oil spill at the time this group of fish is migrating would impact the entire population.

Oil exposure to early-life stages of salmon has life-threatening impacts. The effects of oil can last for decades, particularly in long-lived species such as sturgeon. Both toxic and sub-lethal effects can lead to death of the organism. Impacts caused by dilbit include cardiotoxic effects in embryonic fish, such as pericardial edema, heart malformations, and reduced heart rate, which can reduce future aerobic performance and swimming ability, which can impact the ability to migrate and capture prey.

These impacts are appropriate for consideration in the Council's balancing analysis. In addition, volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs)

¹⁶⁰ PFT of Ellis 4; Ex. 5022-000001-192-TRB.

¹⁶¹ Applicant's Post Hr'g Br. 36.

evaporating from spilled oil pose a risk to first responders and the public.

Recovery and the Fish Economy. There are three types of potential economic impacts to commercial and recreational fishing from an oil spill on the lower Columbia River:

- \$4.7 million in lost revenues from commercial landings, with losses possibly continuing after the fishery is reopened due to negative public perception.
- \$14.4 million decline in expenditures by recreational anglers, including potential impacts to local businesses such as bait shops and marinas.
- \$17.8 million decline in the value of recreational fishing. This is the monetary quantification of lost enjoyment by recreational anglers whose experience is degraded or reduced in quality because of the spill.

These estimates included only impacts on the lower Columbia River and did not include impacts from oil leaving the mouth of the River.

James V. Holmes is an environmental scientist, who has worked on natural resource damage assessments and natural resource restoration planning since 1991. He has evaluated natural resource injuries and damages to the Columbia River associated with two hypothetical scenarios.¹⁶² The first assumed that a tanker grounded in the Lower Columbia River near Vancouver, spilling 189,845 bbl of Bakken crude oil. Mr. Holmes placed an overall damage value on the worst-case discharge scenario in the range of \$171.3 million. Although Gregory Challenger, a witness for Tesoro Savage, questioned some of the methodology, he stated that \$171.3 million could very well be within the range of natural resource damage assessment settlements.

The Council concludes that substantial economic impacts from harm to biological and ecological resources could result from an oil spill associated with the VEDT. The potential harm is consistent with the conclusions in the FEIS.

G. Land Use Consistency and Other Communities' Interests

Council Order 872 resolved only the narrow question of whether the VEDT site was consistent and in compliance with identified portions of the Vancouver Comprehensive Plan and zoning ordinances under RCW 80.50.090(2). Council Order 872 applies only to Vancouver's land use map and zoning code.¹⁶³ The Council explicitly did not consider Comprehensive Plan policies¹⁶⁴ or other matters outside of the scope of its RCW 80.50.090(2) analysis, stating, "Potential issues not addressed by this land use consistency determination include, but are not limited to, potential on or off-site impacts to public safety and the environment (including but not limited to shoreline and storm water management, critical areas ordinances, fire and spill response, and impacts to neighborhoods."¹⁶⁵ The Council also stated that "[n]othing in this Order precludes parties from raising issues during the adjudication . . . with respect to on-site or off-site impacts, or mitigation of those impacts, including but not limited to issues regarding shoreline management,

¹⁶² Ex. 1503-000001-95-ENV.

¹⁶³ Columbia Riverkeeper Final Adjudication Br. 69.

¹⁶⁴ Order 872 at 12.

¹⁶⁵ Order 872 at 14 n.105.

critical area ordinances, stormwater, service availability, spills or fires.”¹⁶⁶

1. Vancouver

During the adjudicative proceeding, the parties raised issues related to the VEDT’s conformance with local land use visions, plans, and ordinances beyond those covered in Order 872. After reviewing the evidence and assessing the credibility and expertise of the witnesses, the Council concluded that although the site is intended and sized for heavy industry, Tesoro Savage has not carried its burden in demonstrating that the VEDT is consistent with Vancouver’s land use plans, ordinances, and interests.

As discussed in the seismic section, the proposed terminal construction is not adequately designed, given the seismic risks present at the site. In addition, Tesoro Savage did not present evidence that the VEDT is consistent with Comprehensive Plan Policy EN-11, Hazard Areas, which states, “Manage development in geographically hazardous area and floodplains to protect public health and safety.”

The Council finds that in addition to assessing land use impacts at the VEDT, the Council’s land use analysis may also address the rail corridor. The Council finds no basis to support proponents’ contention that the proposal would not increase rail traffic. Houses are within 60 feet of the track in much of the Vancouver corridor, raising the possibility that even derailments without release of oil, fire, or explosion can have significant safety consequences.¹⁶⁷ In fact, the record suggests that when CBR derailments have occurred, oil release, fire, and in some cases, explosions have often resulted. The applicant’s rail accident projections, when applied to the roughly 11-mile Vancouver mainline rail corridor, would result in an estimated derailment every 82 years. Accidents of this frequency are not considered remote under local regulatory standards. Even without accidents, increases rail traffic will result in added delay at 32 at-grade crossings of the rail corridor, and negatively affect connectivity goals of the Comprehensive Plan. These impacts affect not only public safety. As discussed in this Report and the Order, property value reductions are anticipated along the corridor, and development intensities envisioned in downtown Vancouver may be discouraged.

Therefore, the Council concludes that the VEDT at the terminal site and rail corridor are inconsistent with the balance of Vancouver plans and ordinances, and interests, as follows: Strategic Plan Goals 1 and 7; Comprehensive Plan Goals CD-6 (Neighborhood livability), CD-9 (Compatible uses), CD-10 (Complementary uses), CD-15 (Public health and the built environment), EN-3 (Energy conservation), EN-6 (Habitat), EN-7 (Endangered species), and EN-11 (Hazard areas).

2. Washougal

Washougal has significant concerns about the proximity of the BNSF rail corridor to its wellfields, and the increased risk of a crude oil spill associated with the VEDT. Washougal

¹⁶⁶ Order 872 at 15.

¹⁶⁷ PFT of Barkan at 10. Five project derailments averaging 12.7 cars every 2.4 years on 385-mile Washington route, of which 11 miles represents 2.8 percent.

provides water to approximately 15,000 residents. Washougal's primary water supply source is the Westside (Lower) Wellfield. This wellfield has multiple water supply wells (Wells 5, 6, 7, and 11) located fewer than 100 feet from the rail corridor.¹⁶⁸ The wells are in a shallow, unconfined aquifer composed of porous alluvial materials. Washougal asserted that there are no available backup drinking water supplies if the city's Westside Wellfield is contaminated by an oil spill.¹⁶⁹

The FEIS, Chapter 4, included an updated analysis of potential impacts from oil spills, including the results of spill modeling along the rail corridor. An interval spill model was conducted along the entire rail corridor, and site-specific modeling was conducted near the Columbia River. The modeling identified Washougal as one of the potentially affected population areas.¹⁷⁰ The FEIS modeling confirmed that an oil spill could lead to contamination of surface water or groundwater, affecting sources of potable water for individuals, including individuals within minority and/or low-income populations.¹⁷¹ The analysis also concluded that the spread of crude oil from a spill could infiltrate nearby water supply wells and other local wells. Cleanup and repair of contaminated water supply infrastructure would be costly and time consuming for municipalities and could impact consumers by resulting in limited or unavailable water. Depending on circumstances surrounding the contaminated water supply, remediation may not be fully feasible or effective.¹⁷²

The Council finds based on the adjudication record and the FEIS that there is a risk that an oil spill near the Westside Wellhead could result in contamination of Washougal's water supply and that remediation may not be fully feasible or effective. Although the Tesoro Savage expert, Ken Ames, puts that risk at a much lower level than the expert for Washougal, Mr. Ames bases this on assumptions that may not be realistic. Mr. Ames assumes an "immediate" response time and immediate removal of any contaminated soil, an assumption that may not be borne out in reality. In addition, his analysis did not take into account the potential longer-term impact that might occur due to dissolution of various contaminants of concern from the free petroleum product and interaction with water at the surface or within the vadose zone. Due to the fact that this is Washougal's primary water source, and there is no ready backup water source, this risk of contamination and its consequences are clearly inconsistent with local community interests.

3. Spokane

Spokane has concerns that the VEDT will increase risk of derailment along the portion of the corridor that traverses the length of Spokane and runs directly through its urban core, primarily on elevated track, creating unique consequences in the event of a derailment, and raising the possibility that even derailed train cars that do not release oil or lead to fire can have significant public safety implications. Spokane asserts that increased demand on emergency responders and gaps in preparedness due to higher traffic density are likely. Spokane also notes that the rail line

¹⁶⁸ Ex. 3503-000001-WSH.

¹⁶⁹ Ex. 3501-000004-WSH.

¹⁷⁰ FEIS Appendix F.

¹⁷¹ FEIS 4-27.

¹⁷² FEIS 4-28.

crosses a number of wellhead protection zones and is close to the Spokane's two largest public water wells, which produce more than half of Spokane's supply.¹⁷³

The Council agrees that the VEDT will increase risk of derailments in Spokane. Spokane is particularly at risk of a derailment because the rail corridor is on elevated track through its urban core, raising the possibility that an intact derailed train could nonetheless cause significant impacts to life, health, and property. As to Spokane's water supply, the Council finds that there is a risk of contamination, although the risk of contamination may be lower than in Washougal because the Spokane wellheads are deeper. Both these risks impact local community interests.

4. Workers at the Port

The ILWU Local 4 has approximately 200 full-time and approximately 100 part-time workers at the Port. The union members were concerned about working next to the VEDT site and decided to oppose the project.¹⁷⁴ Having an understanding of conditions and operations at the Port, the members decided there was a high potential for accidents and a high potential for an oil spill. In addition to other effects of such an incident, there could be a shutdown of operations and the Longshoremen would lose work.¹⁷⁵ To the extent there is a risk of an accident resulting in a spill, fire, or explosion, these workers could be exposed to increased risk of working in a potentially unsafe environment.

H. Tribal Cultural and Economic Impacts

Tribes have lived, fished, hunted, and gathered along the Columbia River and within its watershed for thousands of years.¹⁷⁶ Tribal fishing practices include those that are commercial, subsistence, and ceremonial.¹⁷⁷ In association with the treaties signed between tribes and the U.S. government in 1855, numerous tribes in the region retain the right to fish, hunt, and gather in their "usual and accustomed" areas, as well as on their ceded lands, tribal treaty access sites, and in-lieu fishing sites. Tribal members continue to exercise these rights by fishing, hunting, and gathering on traditional lands for a variety of plants, animals, fish, and materials traditionally and currently used in or as medicines, foods, tools, textiles, building materials, carvings, and sacred objects.¹⁷⁸

The Tribal Parties¹⁷⁹ raised issues regarding the safety of the proposed VEDT. They presented largely un rebutted testimony and evidence describing the effects the operation of the VEDT would have on the Indian tribes in the Columbia River region. They argue that the Tribal Parties will bear an unusually high share of the direct costs associated with oil spills, train

¹⁷³ City of Spokane Hr'g Br. 8.

¹⁷⁴ Tr. 3564, vol. 15.

¹⁷⁵ Tr. 3565, vol. 15.

¹⁷⁶ FEIS 3-535

¹⁷⁷ FEIS 3-540

¹⁷⁸ FEIS 3-535

¹⁷⁹ The Tribal Parties to this adjudication are the Confederated Tribes and Bands of the Yakama Nation (Yakama Nation), the Confederated Tribes of the Umatilla Indian Reservation (Umatilla Tribes), and the Columbia River Inter-Tribal Fish Commission (CRITFC). CRITFC's creators are the four treaty tribes of the Columbia River: the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, the Nez Perce Tribe, and the Yakama Nation.

derailments and fires, damage to the natural environment, and economic and social costs due to impacts on their fisheries and to their cultural interests. They point out that the operation of the VEDT involves three aspects; rail operations, site operations, and vessel operations. They assert that Tesoro Savage has control over only one aspect, the VEDT site operations. The Tribes argue that, while they will bear disproportionate burdens if the VEDT is built, Tesoro Savage understates and misstates the risks of the VEDT.

For purposes of analyzing the impact to tribal cultural resources and economics, the Council reviewed all three aspects of the VEDT operations.

VEDT Construction and Normal Operations. Both the adjudicative record and the FEIS support a conclusion that there would be minimal impacts to tribal cultural resources and economics from the construction activities and normal operations of the VEDT. The FEIS did find that there would be impacts to fishing from the construction, and operations and maintenance of the VEDT, but those impacts are not expected to affect the ability to meet annual catch limits. However, there is no finding in the FEIS as to how the impacts would affect ceremonial fishing.¹⁸⁰

Spills at the VEDT could occur during normal operations: railcar unloading, along transfer pipelines, at the storage tank area, and during vessel crude oil loading.¹⁸¹ A small to medium spill may not impact archaeological resources, as there are no known tribal cultural sites at the VEDT. However, a small to medium spill that reaches the Columbia River may impact submerged cultural resources and those along the river banks, and tribal treaty resources at the VEDT and downstream, affecting ceremonial and subsistence fishing.¹⁸² A large spill could impact cultural resources located along the river banks downstream to the mouth of the Columbia River, and to a lesser extent, impact submerged cultural resources.¹⁸³

Rail Corridor. There are hundreds of irreplaceable cultural resources and sacred sites along the rail corridor, at least 500 sites in Klickitat County alone.¹⁸⁴ In addition, there are many fishing areas that tribal people access by crossing the rail tracks. Increased rail traffic impacts the safety of those who by necessity must cross the railroad tracks.¹⁸⁵ Increased rail traffic could also increase wait times for access to and from the Columbia River.¹⁸⁶

In addition to the impacts from normal rail operations, there would be unacceptable impacts from a derailment resulting in an oil spill, fire and/or explosion. Because of the number of sacred sites along the rail corridor, a spill or fire could damage or destroy these sites.¹⁸⁷ Such damage or destruction could not be monetized; therefore, tribal parties could not recover or be compensated for their irreplaceable cultural resources. In addition, an oil spill that reached the Columbia River could have impacts on all three aspects of tribal fishing. Since fishing sites are tied to treaty rights, tribal fishers could not just fish at another location. In addition, loss of commercial fishing may

¹⁸⁰ FEIS Table 3.17-5 at 3-554.

¹⁸¹ FEIS 4-98

¹⁸² FEIS 4-106.

¹⁸³ FEIS 4-126 – 4-127.

¹⁸⁴ Finding of Fact 112.

¹⁸⁵ Finding of Fact 121.

¹⁸⁶ FEIS Table 3.17-5

¹⁸⁷ FEIS 4-184.

not be compensable due to the lack of record keeping maintained by tribal fishers. And the fear of contaminated fish may cause long-term harm to commercial fishing even after fishing operations are able to be resumed in the affected area.¹⁸⁸

The FEIS also found that pedestrians cross rail lines as part of their daily activities and are at risk for injury. For example, tribal members cross rail lines to access fishing areas, markets for selling fish, and their homes.¹⁸⁹

Vessel Operations. As stated earlier, the risk of an oil spill due to increased vessel traffic from the VEDT operations is high. There would be significant impacts from an oil spill on the Columbia River and impacts to water quality, aquatic life, and wetlands. These impacts directly affect tribal fishing and potentially impact cultural resources. Even a small to medium vessel spill can impact submerged cultural resources, aquatic species, could cause fouling, and would impact tribal treating fishing by reducing the amount and/or quality of fish available for harvest.¹⁹⁰ A large spill would have even greater impacts that have a longer lasting effect in a far greater area as the oil spread downstream and to the shores of the Columbia River.¹⁹¹ This is consistent with the findings in the adjudicative proceeding.

In conclusion, the tribal cultural and economic impacts are great. Many of these impacts cannot be mitigated, nor would the tribes be compensated for the loss. These disproportionate impacts on the tribal people are an unacceptable risk.

I. Clark County Jail Work Center

The Clark County Jail Work Center (JWC) is a public correctional facility that houses inmates. The facility is directly impacted by the VEDT. The JWC poses unique challenges as the inmate population is within the care and custody of the County Sheriff's Office. Inmates are entitled to the protections afforded in the U.S. Constitution,¹⁹² although these rights are subject to restrictions and limitations.¹⁹³

Clark County describes the risks posed by the VEDT as “quantifiable and unacceptable.”¹⁹⁴ In addition, Clark County presented testimony that its emergency response resources would be overwhelmed, and the plans for evacuation are not realistic, given the population at the JWC, threatening the safety of the inmates, workers, and emergency responders.¹⁹⁵ Tesoro Savage argues that Clark County knew these risks when it sited the JWC in a heavy industrial area so Clark County assumed the risk. In addition, Tesoro Savage offered testimony that the probability of an incident is low, the impacts of an incident overstated, and the emergency plans for either

¹⁸⁸ FEIS 4-160, 4-186, 4-189

¹⁸⁹ FEIS 3-318.

¹⁹⁰ FEIS 4-206.

¹⁹¹ FEIS 4-225 – 4-226.

¹⁹² *Shaw v. Murphy*, 532 U.S. 223, 228-29 (2001); *Mauro v. Arpaio*, 188 F.3d 1054, 1058 (9th Cir. 1998) (en banc).

¹⁹³ *Shaw*, 532 U.S. at 229.

¹⁹⁴ Clark Cnty's Post-Hr'g Br. 1.

¹⁹⁵ Clark Cnty's Post-Hr'g Br. 1.

evacuation or shelter-in-place are adequate.¹⁹⁶

The FEIS also addressed the impacts from a large fire and/or explosion at the VEDT and its impact on the JWC. It found that if required, evacuation of the JWC would follow the County Comprehensive Emergency Management Plan. These nearby populations could experience health impacts from potential smoke inhalation and decreases in air quality prior to evacuation.¹⁹⁷ In addition, smoke from burning crude oil could disperse over a wider area and require short-term evacuation of the JWC and nearby residences, resulting in potentially large volumes of traffic on local roadway.¹⁹⁸

The Council found that the risk assessment modeling methods used by both parties' experts are valid ways of determining risk. However, because Tesoro Savage's expert, Dr. Thomas, used incorrect assumptions, the Council found his conclusions to be less credible than Clark County's expert, Dr. Eric Peterson. When correcting for the erroneous assumptions, Dr. Kelly J. Thomas' predicted risks to the JWC population increases. In addition, neither expert took into account the special needs associated with evacuating inmate populations. And the Tesoro Savage witness, Greg Rhoads, admitted that the evacuation plan to shelter-in-place may not be feasible, and it would be unreasonable to not consider what would happen in the event an evacuation were needed, especially in light of the constitutional requirements related to the care and custody of inmate populations. Finally, the placement of the proposed electrical substation in relation to the petrochemical infrastructure poses an additional risk to the JWC.

Based on all the above risks and impacts, the Council concludes that risk to the JWC population and subsequent potential damages are not within acceptable risk levels. This includes the potential harm to the JWC population if an event occurs, the barriers to a successful evacuation of the JWC population, and the lack of resources to respond to an incident at the VEDT when resources for the JWC population are needed. Given the fact that local government has a higher constitutional standard to maintain for the care and custody of the inmate population, the risk and barriers to this population posed by the VEDT are not acceptable.

J. Emergency Response Capabilities

The parties disagree about the probability of an incident occurring at the VEDT site and whether the operational safeguards and mitigation measures are adequate to protect the on-site and off-site populations as well as the environment. The parties also disagree about the degree of damage an incident on-site may cause. This section looks at the emergency response capabilities if an incident occurs at the VEDT.¹⁹⁹

An incident at the VEDT may result in an explosion, fire, and/or crude oil spill, with the resulting release of toxic and flammable vapors. The Council must look at the emergency response

¹⁹⁶ Applicant's Post-Hr'g Br. 47.

¹⁹⁷ FEIS 4-131.

¹⁹⁸ FEIS 4-132.

¹⁹⁹ Response to an emergency along the rail line is discussed in the Rail section. Response to a marine oil spill is discussed in the Oil Spill section. Finally, the emergency response issues dealing specifically with the Jail Work Center is discussed in the Jail Work Center section.

capacity available to protect the citizens and the environment from these damages that may result from an incident. The Council reviewed the emergency fire response capacity, law enforcement response capacity, and emergency evacuation capacity.

Tesoro Savage focuses on the safety equipment at the VEDT, training for workers at the site, and the extensive planning for and response to an incident at the site. The Council recognizes the safety features at the VEDT and the extensive planning. However despite this, there is agreement that there are areas of weaknesses in the water system available to fight a fire, and no solution has been agreed upon. In addition, planning is not equivalent to capability to response, and the Council must still look to emergency response capacity if safety features fail or an accident occurs sparking an incident at the VEDT.

The first line of defense to a fire is the Vancouver Fire Department (VFD). The VFD has 88 sworn firefighters to staff stations, over three shifts, with a minimum 24/7 staffing of 40 on-duty personnel. The VFD runs an average of 70 calls per day or 25,500 runs a year, and serves a population of approximately 255,000 people within the service area. Based on the VFD staff model, a two-alarm commercial fire would require 75 percent of the on-duty complement of 40 firefighters. This would leave two engine companies of six personnel to cover the rest of Vancouver. A recall of off-duty firefighters would take up to an hour.²⁰⁰

The VFD does not staff specialty response assets, such as a Hazmat Team, Technical Rescue Team or Marine Response. If these assets were required, off-duty personnel would be called in to respond and staff the specialized equipment.²⁰¹ And the VFD has limited capacity to respond to an oil mixture fire on a marine vessel at the VEDT. The quick-response vessel has a three-person crew that cross-staffs an engine at Station No. 1. Depending on availability, it could take an hour to call back staffing for the vessel. In addition, the vessel, which has limited foam capacity, has a limited reach, so depending on the fire location, the vessel may not be able to reach the incident.²⁰²

Law enforcement resources would also be needed in the event of an incident. The Clark County Sheriff, Chief Atkins, provided substantial evidence about his lack of staff, staff training and expertise, and specialized equipment necessary to respond to a major incident at the VEDT. In addition, the Sheriff's Office would be responsible for the safety of the inmates at the JWC, which would further tax the limited resources. A VEDT emergency would exceed the County Sheriff's Office's immediate staffing resources and would likely result in an inability to respond to other calls. This insufficient staffing would result in a need to call in off-duty deputies on an overtime basis to respond to the emergency. This would have an impact upon the budget and ability to respond to normal calls for service on an ongoing basis.²⁰³

Tesoro Savage looks to the wider resources available in the public and private sector. The VFD and Sheriff's Office have mutual aid agreements with other jurisdictions. However, response to a request is voluntary, and these agreements are limited as many of the mutual aid jurisdictions

²⁰⁰ PFT of Molina 4-5.

²⁰¹ PFT of Molina 6.

²⁰² PFT of Molina 11.

²⁰³ PFT of Atkins 7.

are small, with only volunteer staff. In addition, the mutual aid agreement with the Portland Fire Department excludes assistance for hazardous materials incidents and its ability to respond is further restricted by congestion and bridge lifts on the Interstate-5 Bridge crossing the Columbia River.²⁰⁴

The FEIS also found gaps in emergency capabilities. However, the FEIS proposed mitigation to address identified gaps.²⁰⁵ However, the FEIS also found significant unavoidable impacts to emergency services as a result of gate downtown, which was previously discussed. The delays to emergency services can result in impacts to health, including fatalities.

The Council also finds there are weaknesses in the emergency evacuation notification system. These limitations can hamper the ability to provide accurate information to incident command and inform the community of actions to be taken. The Council also acknowledges other major obstacles emergency responders must overcome, such as traffic congestion and road blockages. Taken together, all these may impede the ability to successfully evacuate and/or respond to an incident at the VEDT.

K. Socioeconomic Impacts

Tesoro Savage provided a detailed analysis of the positive economic impacts from the VEDT. This would include an increase in jobs, revenue to the Port, taxes collected from the construction and operation activities, and expenditures for other goods and services from this increased economic activity as impacts are multiplied as they ripple through the local economy. Although the opponents contest the amount of positive economic benefit that would be received, there appears to be agreement there would be some positive economic benefits. The FEIS used the analysis prepared by Tesoro Savage.

Both proponents and opponents provided a detailed analysis of the VEDT's potential effect on property values. Different models were used and different assumptions were made. The Council finds that the analyses presented by both sides are too speculative to rely upon, although all models do show some potential decline in residential property values. The extent and significance of the decline are too speculative. The FEIS also concludes that property value within a mile of the rail line would be expected to decrease by 0 to 1.5 percent, with the higher number associated with properties closest to the line, and would constitute a disproportionate impact to minority or low-income communities.²⁰⁶

Tesoro Savage did not provide a detailed analysis of all the potential negative impacts from the VEDT, including several types of impacts which the applicant's economic consultant acknowledged could be considered in principle. These include the value of alternative uses of the terminal site, property value reductions along the rail corridor, the value of vehicle delay at at-grade crossings, added public service costs, and the costs of rail, vessel, or facility accidents not borne by the applicant. Negative economic impacts can also be subject to negative multiplier effects as they ripple through the local economy, analogous to multipliers assumed by in positive

²⁰⁴ PFT of Molina 7.

²⁰⁵ FEIS 4-134.

²⁰⁶ FEIS 3-529.

economic impact estimates. These notwithstanding, the Council finds a net positive economic impact is likely as a result of daily operations of the proposal, but this is not necessarily the case when accident costs are considered. This is a particularly important consideration given that in the 16-year time frame used by the applicant to estimate positive economic benefits, a vessel spill is more likely than not, and multiple rail derailments and spills are projected. Accident costs would be primarily paid for by the applicant, but the record is not clear that various local governmental and private costs would not accrue, particularly given the likely amounts involved. PHMSA estimated the average cost of a lower consequence rail accident to be \$21 million, and a higher consequence event, which appears statistically likely to occur for this proposal under PHMSA's analysis, at \$1.4 billion. Costs from a Columbia River spill three times larger than the likely size projected by the applicant were estimated to range from \$455,000 to \$1.1 billion. The cost or probability of a major accident at the facility itself is unknown, but the record indicates scientific consensus of a 15 percent probability that a Cascadia subduction level earthquake will occur in the next 50 years, and the terminal site is acknowledged by all as susceptible to liquefaction.²⁰⁷

There is also a disproportionate impact on minority and low-income populations. The Fruit Valley neighborhood is a subarea with a higher percentage of Hispanic, Asian, and Native American persons than the rest of Vancouver. The neighborhood also has a high poverty level.²⁰⁸ In the Fruit Valley neighborhood, some residences will be as close as 1,100 feet from the inbound route and 240 feet from the outbound route.²⁰⁹ Lower income levels and the possibility of limited transportation options make it more difficult for these residents to move.

Given the proximity of the VEDT to the Fruit Valley Neighborhood, the VEDT will have a greater impact on its residents than other areas of Vancouver. Although the neighborhood is zoned for industrial uses, this does not mean that the incoming industry should have a disproportionate adverse impact on its residents. The increased emissions of pollutants, even within acceptable regulatory standards, could have an adverse impact on the health of these residents. To date, Tesoro Savage has not agreed to make any changes that would reduce this impact.

The FEIS stated that environmental justice populations can be more sensitive to impacts than the average population due to additional factors associated with income, health and safety. The impacts of train-related increases in air emissions may be greater in low-income populations and those lacking health insurance, as these individuals may experience higher exposure and have less access to health care. For example, the environmental justice population along this proposed project's rail route have a higher percentage of people (16 percent) without health insurance (versus 13 percent for other populations), which translates to less preventive health care and can lead to more health issues and a greater demand for emergency response.²¹⁰

The FEIS concluded that there could be impacts to minority and low-income populations from construction of the VEDT, including exposure of hazardous materials, changes to air quality,

²⁰⁷ FEIS 3-528.

²⁰⁸ PFT of Wechner 24.

²⁰⁹ PFT of Wechner 12.

²¹⁰ FEIS ES-27

noise, visual effects, and disruption to traffic patterns.²¹¹ However, these impacts are minor and short term in duration. It concludes that during operations, significant unavoidable adverse impacts to emergency response for environmental justice communities would be associated with the proposed Facility's normal rail traffic, unless effective measures are implemented for impacts to emergency response.²¹² A summary of impacts to socioeconomics, and mitigation for those impacts, is presented in the FEIS, 3-532, Table 3.16-2.

L. Air Emissions and Greenhouse Gases

The VEDT will be a new source of emissions of air pollutants. Air emissions will be produced both at the facility via the transfer and storage of crude oil at the Vancouver terminal, and within the state of Washington via the transportation of the crude oil to the VEDT. As such, the VEDT is governed by federal requirements in the federal Clean Air Act and state requirements in the state Clean Air Act, and regulations adopted under both these Acts.

As discussed earlier in this Report, Chapter 463-62 WAC does not establish standards for the Council's current consideration of Tesoro Savage's ASC. The Council will nonetheless include in its current analysis consideration of whether Tesoro Savage's ASC complies with WAC 463-62-070, which requires that energy facility site certification agreements meet the air emissions requirements of applicable state air quality laws and regulations promulgated pursuant to the Washington State Clean Air Act, RCW 70.94, the Federal Clean Air Act, 42 U.S.C. 7401 et seq., and WAC 463-78.

1. Major versus Minor Stationary Source

Under the provisions of the state Clean Air Act, before the construction and operation of the VEDT, Tesoro Savage will need to obtain a notice of construction approval order under RCW 70.94.152. In addition, if the facility meets the definition of "major emitting facility," the VEDT cannot begin construction unless it has been issued a PSD permit.²¹³ The federal Clean Air Act provides that a petroleum storage and transfer facility with a capacity exceeding 300,000 bbl is a major emitting facility if it emits at least 100 tons per year of any air pollutant other than greenhouse gases (GHG).²¹⁴ Tesoro Savage proposes to construct a facility consisting of six storage tanks, each of which will be designed to hold approximately 380,000 barrels of crude oil.²¹⁵ This facility will therefore be a major emitting facility if it emits 100 tons per year of any pollutant other than greenhouse gases.

Storage Tanks. The Council finds that based on Tesoro's history, the vapor pressure in the crude oil storage tanks will be below the regulatory limits. Tesoro Savage has put mechanisms in place to help ensure compliance and reporting to the Council and the Department of Ecology or air permitting agency if the vapor pressure is in excess of the 11 psi limit.

²¹¹ FEIS 3-525.

²¹² FEIS 3-531.

²¹³ Vancouver is not located in a nonattainment area, which would be an area where ambient concentrations of one or more criteria pollutants exceed the national ambient air quality standards. Tr. 3713, vol. 15. Therefore the nonattainment program does not apply to the proposed facility. 42 U.S.C. § 7502(b).

²¹⁴ 42 U.S.C. § 7479(1); *Utility Air Group v. EPA*, 134 S. Ct. 2427 (2014).

²¹⁵ Ex. 00001-000815-PCE n.3

The Council also finds that the calculation of the potential to emit VOCs from the unheated storage tanks used an accepted methodology. However, the Council is not sufficiently confident that the calculations for VOC emissions from heated tanks is correct. The Council also finds that there is currently no plan to monitor for actual emissions. A plan to monitor emissions would verify that the calculations are accurate or allow for corrections or design changes if the calculation prove to be in error.

Marine Vessel Loading. Relying on Dr. Ranajit Sahu's testimony with respect to emissions from marine vessel loading, the Council finds that Tesoro Savage over-estimated the efficiency rate of capture of VOCs emissions during vessel loading. The Council is persuaded that the slight positive pressure in the vessel will result in at least some fugitive emissions of VOCs. The Council is unconvinced that the sniffers will always detect small VOC leaks under windy conditions, which are frequently present in the Gorge area. The Council is also unconvinced that annual certifications of vessels as "vessel tight" warrant a finding that 100 percent of the VOC emissions will be captured. For its calculations, the FEIS assumed a capture efficiency of 99.89 percent. And the NOC air permit would require an annual testing of the marine vapor combustion unit to ensure vapor tightness.²¹⁶

Other Stationary Sources. The Council looked at VOC emissions from other stationary sources. The Council finds that the VOC emissions from the Area 600 boilers, the fire water pumps, and the components of the stationary sources were properly calculated.

Mobile Sources. The Council also looked at emissions from mobile sources. The Council concludes that, under the applicable regulatory framework, emissions from mobile sources are not considered as part of the emissions evaluated for air permitting. However, mobile source emissions should be addressed outside the permitting context.

Greenhouse Gas Issues. GHG emissions are not considered in a determination of whether a source is a major source.²¹⁷

Conclusion. After reviewing BP's total calculations for VOCs from the stationary sources (1.89 tpy from the boilers, 8.64 tpy from the marine loading process, 21.7 tpy from the tanks, 00.822 tpy from component leaks, and 0.00689 from the fire water pumps, for a total of 33.15 tpy), and taking into account the deviations from the findings above, the tpy appears to fall below the major source limit, making the VEDT subject to a minor permit (NOC) to address emissions from the facility rather than a PSD permit.

2. Ambient Air Quality

Ambient air quality standards limit the amount of certain pollutants that may be in the air which people breath. In order to meet this requirement, an applicant conducts an air quality analysis to evaluate the impacts of the emissions from a new proposed stationary source. Air dispersion modeling is frequently required as part of this process. Ambient air quality standards

²¹⁶ Permit condition 53.

²¹⁷ USARG v. EPA

have been established both by the federal government and by the State of Washington. The NAAQS are health protective regulatory levels established by EPA under the Clean Air Act for six "criteria pollutants": ozone, lead, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide.²¹⁸ Washington has also adopted ambient air quality standards for toxic air pollutants identified in WAC 173-460-150.

The Council finds that the emissions from the VEDT comply with ambient air quality standards when looking at the results for both the criteria pollutants and the toxic air pollutants (TAPS) from stationary sources. Ecology has established an Acceptable Source Impact Level (ASIL) for diesel particulate matter (DPM) under its toxic air pollutant program. The Council finds that the VEDT stationary source meets the established ASIL for DPM. In addition, the analysis for ozone, secondary aerosol formation, and other pollutants meets permit requirements. However, the Council can look beyond compliance with permit and other regulatory standards. The Council may, and does, look further at the health impacts from these events under RCW 80.50.010 to balance the need of the VEDT versus the impacts.

Emissions from mobile sources associated with the VEDT will include combustion emissions from locomotives, tugboats, marine vessels while they are docked, vehicles, and off-road diesel equipment. Criteria pollutants identified with emissions from mobile sources include nitrogen dioxide, carbon monoxide, sulfur dioxide, and particulate matter. Major sources of nitrogen dioxide will be tugboats, locomotives, and vessels while they are docked. Nitrogen dioxide exacerbates asthma, particularly in children and approximately one in ten people in Clark County have asthma. Low exposure levels of nitrogen dioxide, below current regulatory levels, can have effects on asthma. Studies have not found a level below which no effects occur.

Major sources of carbon monoxide will be employee passenger vehicles and tugboat engines. In addition, sulfur dioxide emissions are highly dependent upon the sulfur level in the fuel used by the marine vessels. The marine vessels that will transport the crude oil will use only ultra-low sulfur fuel. Sources of diesel particulate matter will be locomotives, marine vessels, vehicles, and off-road diesel equipment.

The Council finds that the project is likely to cause health impacts to the Fruit Valley Neighborhood, and the workers and inmates of the Clark County Jail facility located at the Port. This is primarily due to the amount of DPM and the nitrogen dioxide emitted at the site, along with the health risks associated with these pollutants.

Conclusion. After reviewing BP's total calculations for VOCs from the stationary sources (1.89 tpy from the boilers, 8.64 tpy from the marine loading process, 21.7 tpy from the tanks, 0.822 tpy from component leaks, and 0.00689 from the fire water pumps, for a total of 33.15 tpy), and taking into account the deviations from the findings above, the tpy appears to fall below the major source limit, making the VEDT subject to a minor permit (NOC) to address emissions from the facility rather than a PSD permit.

Greenhouse Gas Issues. With regard to GHGs, emissions from the VEDT are calculated to be 95,000 tpy (short tons), which constitutes about 0.1 percent of state GHG emissions. Tesoro

²¹⁸ 40 CFR Part 50.8.

Savage also estimated GHG emissions from ships, tugs, and trains associated with the project. When one adds Tesoro Savage's estimated transport-related emissions (one-way rail from Spokane to Vancouver and ship and vessel emissions leaving the terminal up to some point) to the VEDT emissions estimate of 86,000 metric tons (which is the same as 95,000 tpy in short tons), one gets roughly a quarter million metric tons using Tesoro Savage's own estimates. This raises Tesoro Savage to almost 0.4 percent of state GHG emissions. Other emissions to consider include emissions from trains leaving as well as inbound trains, emissions from trains from the point of origin, and emissions from ships to their destinations. Testimony indicated that, when these are included, Tesoro Savage's emissions are up to 1–2 percent of Washington's GHG emissions. If one adds GHG emissions from the refining of the crude oil from the VEDT, one gets to 7–8 percent of Washington's GHG emissions. And if one adds in emissions from the combustion of the finished products, it would be up to 54 percent of Washington's GHG emissions.

Tesoro Savage has offered a one-time GHG mitigation payment of \$496,440 to the Climate Trust. Tesoro Savage's current mitigation efforts are insufficient because GHG emissions that need to be mitigated include emissions caused by transport of crude oil (and possibly the emissions due to refining and end use).

3. FEIS

The information in the FEIS differs in some respects from that presented at hearing. However, the conclusions are consistent in regard to meeting air permit standards, emissions outside those considered in the air permit, and the increased (but relatively small) health impacts. The emissions calculations were updated after the adjudicative record closed, in accordance with the air permit, as well as with information requested from Tesoro Savage for more extensive modeling.²¹⁹

Air dispersion modeling was conducted to predict ambient air concentrations of the following:

- Modeled criteria pollutants – carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter with an aerodynamic diameter of 10 µm or less (PM₁₀); and particulate matter with an aerodynamic diameter of 2.5 µm or less (PM_{2.5});
- TAPs – roughly 400 different air pollutants that the State of Washington has determined to be known to cause cancer or other serious health effects. They are listed in WAC 173-460-150. DPM is one of the most common TAPs found in ambient air, resulting from the combustion of diesel fuel, either in stationary sources or mobile sources.
- Both stationary and mobile sources were included in the air dispersion modeling.²²⁰

The analysis in the FEIS determined that 13 TAPs will potentially exceed the Small Quantity Emission Rates (SQERs) at the full operation of the proposed Facility. A list of these TAPs and a comparison to the SQERs can be found in Table 3.2-7. With the exception of DPM, the maximum predicted ambient concentrations of all TAPs were determined to be below the applicable ASILs (see Table 3.2-8).

²¹⁹ FEIS ES-9.

²²⁰ FEIS Appendix G at 7.

When predicted ambient concentrations of a TAP exceed the ASIL, WAC 173-460-090 requires the completion of a Tier II health risk assessment. In accordance with this requirement, a Tier II health risk assessment was conducted for DPM. The Tier II assessment methodology followed the requirements outlined in the WAC 173-460-090.²²¹ Under that analysis, risk for carcinogens is expressed as a probability of an individual contracting cancer out of 1 million people who are exposed to the same concentrations of the same pollutant over a lifetime (often defined as 70 years), and is referred to lifetime excess cancer risk. Under WAC 173-460-090, a project may be approved in the lifetime excess cancer risk if the project is less than 10 excess cancers per million.

The Tier II health risk assessment conducted for DPM emissions found that the excess cancer risk from DPM is 6.9 excess cancers per million, which is below the regulatory threshold of 10 excess cancers per million.²²² Exposure parameters, and the resulting exposure factor, for each of the receptor type are provided in Table 3.2-10.²²³

The FEIS also identified GHG emissions from operations of the VEDT, which included stationary and mobile sources. The FEIS concluded that the GHG emissions are expected to result in an adverse impact to air quality.²²⁴ The FEIS identified mitigation measures that could be imposed to address impact to air quality. The mitigation measures are:

- Eliminate, mitigate, or otherwise offset 100 percent of the GHG emissions from all stationary sources listed in the SWCAA permit, and all on-site mobile sources.
- Eliminate, mitigate, or otherwise offset 50 percent of the GHG emissions from all electricity purchased and used by the VEDT annually.
- Demonstrate annual compliance with GHG emission offsets.²²⁵

Even if all these actions are taken, however, they will not mitigate for all GHG emissions resulting from the project, as they will not mitigate for the emissions of GHGs from mobile sources not on the site.

M. Noise

Chapter 463-62 WAC does not establish standards for the Council's current consideration of Tesoro Savage's ASC. The Council nonetheless includes in its analysis consideration of whether the VEDT complies with WAC 463-62-030, which provides that site certification agreements for energy facilities shall meet the noise standards established in chapter 70.107 RCW, the Noise Control Act of 1974, and state rules adopted to implement those requirements in chapter 173-60 WAC, Maximum environmental noise levels.

Tesoro Savage asserts that the VEDT operations meet applicable noise standards. In

²²¹ FEIS Appendix G at 1.

²²² FEIS 3-73; FEIS Appendix G at 19.

²²³ FEIS 3-73.

²²⁴ FEIS 3-85.

²²⁵ FEIS 3-85 – 3-86.

addition, Tesoro Savage has committed to limiting construction to daytime hours in order to comply with the regulations, and intends to conduct the noisiest construction during the hours of 7:00 a.m. to 8:00 p.m. Opponents focus on the health impacts of the noise from construction and operational activities, and do not contest compliance with applicable noise standards.

In the Adjudication Order, the Council found that the increased noise from construction and operation of the VEDT would comply with applicable noise standards. The Council also considered the impacts of the noise and concluded that a more stringent regulatory standard is not needed.

Although the Order does not recommend any additional mitigation for noise impacts, the FEIS looked at the impacts to the nearby populations, the Fruit Valley Neighborhood, JWC, and the Tidewater Office Building.²²⁶ The FEIS concluded that there would be impacts to the Fruit Valley Neighborhood and JWC from nighttime construction noise.²²⁷ There would also be impacts to all three populations from operational noise.²²⁸ There are no significant unavoidable impacts from operations, or construction if specified mitigation associated with nighttime construction is imposed.²²⁹

Based on the adjudicative record, Tesoro Savage's commitment regarding nighttime construction activities, and the FEIS findings and mitigation measures, the Council concludes that noise from construction and operation activities does not pose adverse impacts to the public interest.

N. Need for the VEDT

Tesoro Savage has the burden of demonstrating the need for the VEDT at the proposed location. As discussed in Section VIII, even if one accepts the premise that there is a "pressing need for energy facilities," the Council must determine the appropriateness of the proposed location and operation of the proposed facility in light of the need for energy from that facility.

The United States is divided into regional Petroleum Administration for Defense Districts (PADDs) by the U.S. Department of Energy for the purposes of petroleum infrastructure and refining. The regions vary in the number of oil-producing fields, the capacity for processing crude oil, and the end user base for refined oil. The PADDs also differ in terms of transportation of crude oil to refineries, pipeline infrastructure, crude-by-rail, and marine transport.²³⁰

PADD V is composed of the seven western states: Alaska, Washington, California, Oregon, Nevada, Arizona, and Hawaii. Tesoro has four refineries in PADD V. One is in Anacortes, Washington; one in Kenai, Alaska; and two in California, Martinez and Los Angeles. While three of these refineries produce above the average capacity of 95 maximum barrels per day, the Los

²²⁶ FEIS Section 3.9.3.1 (3-337 – 3-338)

²²⁷ FEIS 3-342.

²²⁸ FEIS 3-344 – 3-347.

²²⁹ FEIS 3-350 – 3-351.

²³⁰ PFT of Roach 4.

Angeles refinery is the largest single refinery complex on the West Coast.²³¹ In addition to the Tesoro refinery in Anacortes, the state of Washington has four other refineries owned by three different companies: British Petroleum, Phillips 66, and U.S. Oil.²³²

The modes of crude oil transport into PADD V vary. Pipeline infrastructure within PADD V brings crude oil to California refineries from the California crude fields. The Trans Mountain pipeline brings crude oil into northern Washington from Canada. Crude oil from the Alaskan North Slope (ANS) is brought down to the southern coast of Alaska and then transported by ships to PADD V refineries. Foreign marine vessels also bring crude oil to PADD V. More recently, CBR from the mid-continent is transported to PADD V via rail. Several Washington refineries have constructed CBR facilities; recent CBR facility proposals in California have not moved forward. The use of three transportation modes — pipeline, marine and rail — provide flexibility in bringing crude oil to PADD V refineries.²³³

The stated purpose of the VEDT is to “provide an important structural component of the supply chain to address declining sources and provide domestic crude oil supply alternatives to replace those existing sources.”²³⁴ Tesoro Savage argues that the VEDT is necessary to replace declining sources of crude oil for refineries in Washington and other western states.²³⁵

The parties agree that consumer demand for refined petroleum products in PADD V is likely to remain roughly stable over the life of the project. The parties also agree that sufficient refinery capacity exists to meet state and PADD V consumer demand for refined petroleum products during this time period. The parties further appear to agree that consumer energy prices would not be directly affected by the VEDT.

On balance the Council agrees that there is little evidence that the VEDT will benefit Washington refiners directly. The existence of CBR unloading facilities at four of five Washington refineries suggests that refiners would tend to procure mid-continent crude directly. CBR receiving capacity in Washington exceeds current delivery levels, meaning additional declines in ANS supplies could already be met with existing infrastructure. Incremental additional supplies could be sourced from overseas or through any pipeline expansion, as was the case before Washington refiners constructed CBR facilities.

The Council agrees with Tesoro Savage that the difficulty in obtaining approval for new or expanded CBR facilities in California could make sourcing CBR through the VEDT attractive to refiners in California or elsewhere in PADD V. Given the interconnected nature of petroleum markets, and specifically given that firms such as Tesoro own refineries in both Washington and California, Washington refiners could indirectly benefit from the availability of VEDT-sourced crude to California refineries, for example, if it reduced competition for ANS crudes, allowing Washington refiners to continue sourcing from ANS despite declining production.

²³¹ PFT of Roach 3-4.

²³² PFT of Goodman 30; Ex. 5588-000034-CRK.

²³³ PFT of Roach 5-6, 16, 18.

²³⁴ Applicant’s Pre-Hr’g Br. 5.

²³⁵ Applicant’s Post-Hr’g Br. 10–12.

The Council thus concludes that, notwithstanding uncertainty surrounding the extent to which the VEDT's capacity would actually be used, Tesoro Savage has provided substantial evidence to show that refiners in PADD V, particularly California refiners, could benefit from the ability to source crude from the VEDT. To the extent future market conditions favor procuring through the VEDT, refiners' benefits would come in the form of supply-chain flexibility and reliability, access to a variety of crude types and blends, and potentially competitive pricing. To the extent conditions disfavor use of the VEDT, refiners' (other than Tesoro's) ability to access other available sources of crude would not be constrained by the facility's existence. Under some market conditions, Washington refiners could benefit from procuring crude directly through the VEDT. More likely, Washington refiners would benefit only indirectly, to the extent that the additional procurement option for California refiners reduces market pressures on Washington refiner-preferred sources such as ANS and Canadian crudes.

While Tesoro Savage has shown at least potential benefits to refiners from the VEDT, the Council does not find substantial evidence in the record that the VEDT is *necessary* to secure refiners' supplies of crude oil. Crude oil is a major commodity, traded internationally. It is undisputed that sources of crude oil will remain available to PADD V refiners whether or not the VEDT is constructed.²³⁶ While there were concerns regarding the reliability of international supplies, due to corruption and geopolitical instability, no evidence of supply disruption was provided. Thus, the benefit to refiners from the project is the marginal value refiners in Washington and across PADD V would derive from sourcing crude from the VEDT. Crude oil market conditions can change rapidly, and are inherently unpredictable. Presumably due to the wide variety of factors at play in refiners' procurement decisions, and the inherent difficulty in forecasting crude oil market conditions, the facility has not executed any long-term contracts. Aside from Tesoro's indication that it will retain and might use up to one-sixth of the VEDT's throughput capacity, no witnesses testified to the extent to which refiners would procure crude oil through the VEDT, or the magnitude of benefits they would derive from doing so.²³⁷ This further undermines assertions that the VEDT is necessary to respond to declining ANS production or other supply-chain issues.

No evidence was presented by proponents or opponents to suggest that the magnitude of supply-chain efficiencies achieved by refiners due to the VEDT would be sufficient to noticeably impact consumer pricing, or to otherwise materially benefit consumers. Rather, the parties agree that such impacts would likely be negligible relative to the changes in refined product pricing driven by underlying crude oil costs.

The Council concludes that Tesoro Savage has not provided substantial evidence to show that consumers of refined products, in Washington or elsewhere in PADD V, would benefit from

²³⁶ See Tr. 5007–12, 5052–53, vol. 21.

²³⁷ WAC 463-60-116 allows an applicant to submit amendments to the application within 30 days after conclusion of the hearing. Amendments may include "all commitments and stipulations made by [Tesoro Savage] during the adjudicative hearings." Tesoro Savage timely submitted an amended application in October 2016, which included the following provision: "[t]o ensure availability of feedstocks to Washington state refineries, in-state refiners will have first call on all commercially available barrels." Final Commitments and Revisions October 2016 page 2.3-2. This stipulation or commitment appears to have been first made in the amended application. Because it was not made by Tesoro Savage or any witness during the adjudicative hearing, the Council declines to consider it for purposes of this order.

the refiners' supply-chain efficiencies. In fact, it was generally agreed that it would be difficult to say that a consumer would see a benefit directly from the VEDT.²³⁸

These bare assertions, offered without substantial evidence, are insufficient to persuade the Council that the VEDT would materially benefit consumers.

O. Financial Assurances and Potential Uncovered Costs

Position of Parties. Tesoro Savage asserts that it has committed to providing financial assurances that are sufficient to mitigate for the risk of damage or to the physical or human environment caused by project construction, operation, abandonment, termination, or when operations cease at the end of the project's life. Tesoro Savage has agreed to obtain insurance sufficient to meet the requirements of laws that it contends are binding on the Council, and the ground lease with the Port, and that as a company, it has the ability to obtain the necessary coverage. It argues that the law does not require an applicant to commit to a specific amount of insurance coverage prior to approval of the facility, and that the amount of insurance coverage can be specified after approval, but before facility construction and operation.²³⁹ In addition, Tesoro Savage argues that it is responsible only for the financial assurance associated with the terminal facility and that the railroad company and the vessel operators are required to provide financial assurances for their own operations as this is not a legal obligation of Tesoro Savage. Finally, Tesoro Savage asserts that the required coverage should be for the reasonable worst case scenario because it would be inconsistent with the plain meaning of the statute (RCW 88.40.025) and unrealistic to require the company to provide coverage for a worst case scenario, especially one with a low probability of occurring. Such a requirement would make it impossible to operate.

The opposing parties assert that Tesoro Savage has not provided sufficient evidence of financial assurances. There is no evidence in the record as to how much financial coverage would be available in the case of an incident, so there is no way to know if the state and local government(s), as well as the public, will be compensated for loss or damage and when any such compensation might actually be paid. In addition, project opponents argue that Tesoro Savage's lack of significant assets and its corporate structure do not provide the ability to fill the gap if coverage is insufficient. They also argue that the ASC includes all three facets of the operation: crude-by-rail, terminal operations, and marine transport, and therefore, Tesoro Savage should be responsible for ensuring financial assurances for an incident in any one of these facets of the project. They contend that some types of damages, such as cultural and ceremonial harms to tribal rights, cannot be monetized, and therefore, may not be covered by insurance. Finally, they contend that coverage should be set based on the worst-case scenario (maximum foreseeable loss); otherwise, the coverage may be inadequate, leaving the possibility that damage recovery may not be enough for the potential loss.

Council Discussion and Resolution. Tesoro Savage is a limited liability company with limited assets. The majority of the assets will be the structures at the VEDT; the land will be leased from the Port. Based on its corporate structure, without specific indemnification provisions in its contract with its two parent companies, the joint venture partners will not be liable for any loss

²³⁸ Tr. 196, vol. 2.

²³⁹ Applicant's Post-Hr'g Br. 61.

resulting from VEDT operations. Therefore, outside of insurance coverage, there will be little to no other funds available to compensate third parties for potential losses.

The Council takes notice that should Tesoro Savage, as a limited liability company, file for bankruptcy upon a catastrophic incident, any insurance (1) may not be immediately available; and (2) could become part of a bankruptcy estate, distributable under the bankruptcy laws in accordance with the normal priorities to creditors, including the state and other persons or entities damaged.

The lease with the Port requires a certain level insurance for property damage. In addition, the lease requires third-party liability coverage for bodily injury and property damage from incidents that occur on the terminal site: \$10 million per occurrence and \$15 million aggregate in a policy year. A contractor's pollution liability policy will be in place during the facility construction, while a pollution legal liability policy in the amount of \$25 million will be in place once the facility is operational.²⁴⁰ As both proponents and opponents stipulate, based on the potential incidents that could occur at the site and the resulting damages, the Council finds these limits to be too low.

Tesoro Savage has not yet committed to any particular type or level of insurance beyond the lease provisions. It intends to evaluate potential losses through a Black Swan study after project approval. The Black Swan analysis seems to be a very conservative model that looks at only a limited number of factors, based on Tesoro Savage's view that the level of coverage should be based on a reasonable worst-case analysis, rather than based on the maximum foreseeable loss (MFL). The MFL is more comprehensive but may take too broad a look, and therefore produce a larger number than is reasonable. Neither analysis is perfect, but the MFL seems to be more reasonable in determining the potential scope of damages in the event of an incident related to the VEDT. The object of each is the same: determining the potential loss that must be considered in determining insurance coverage.

There are state statutes that relate to financial responsibility regarding oil spills. In regard to onshore or offshore facilities, RCW 88.40.025 provides that an onshore or offshore facility shall demonstrate financial responsibility in an amount determined by Ecology as necessary to compensate the state and affected counties and cities for damages that might occur during a reasonable worst-case spill of oil from that facility into the navigable waters of the state. The statute requires Ecology to consider such matters as the amount of oil that could be spilled into the navigable waters from the facility, the cost of cleaning up the spilled oil, the frequency of operations at the facility, the damages that could result from the spill, and the commercial availability and affordability of financial responsibility.

However, this and other similar statutes do not restrict the Council's ability to look at the financial responsibility requirements for the VEDT onshore facility, taking into account the damages resulting from an incident at the VEDT, or from an incident on the vessel or rail routes. RCW 80.50.110 specifically provides that:

(1) If any provision of this chapter is in conflict with any other provision, limitation, or

²⁴⁰ Tr. 1715–16, vol. 8.

restriction which is now in effect under any other law of this state, or any rule or regulation promulgated thereunder, this chapter shall govern and control and such other law or rule or regulation promulgated thereunder shall be deemed superseded for the purposes of this chapter.

(2) The state hereby preempts the regulation and certification of the location, construction, and operational conditions of certification of the energy facilities included under RCW 80.50.060 as now or hereafter amended.

Michelle Hollingsed testified that coverage of up to \$1 billion to \$1.5 billion is available on the market to Tesoro Savage. Considering only the risks posed by operations at the VEDT, and not considering risks posed by rail transport before care and custody is transferred to Tesoro Savage, or by marine transport after care and custody are transferred to marine shippers, Tesoro Savage has not demonstrated market capacity exists to insure a reasonable worst-case damage amount. Moreover, the market clearly lacks capacity to insure a MFL that Mr. Blackburn estimates could be as high as \$6 billion. Moreover, even if coverage turns out to be available, payment of large insurance claims following an incident could be delayed by litigation.

The Council must necessarily also look at potential incidents and resulting damages on the rail and vessel corridors. But for the VEDT, the transportation of crude oil to and from the facility would not occur. Thus, but for the existence of the VEDT, there would not be a risk of these potential losses. As a result, the financial assurances need to include assurances that the risk of damage is covered for all three segments of the facility operations. This is not the same as saying that Tesoro Savage is the entity that must obtain insurance for events along the rail line or in the Columbia River. The Council must, however, consider the possibility of uncovered losses and the lack of financial assurances.

As noted previously in this Order, PHMSA considers damages in excess of \$5.75 billion a conceivable result of a crude-by-rail accident. With the VEDT's storage capacity equivalent to six unit trains, the Council notes the possibility of losses an order of magnitude larger than the incidents described as comparable by Ms. Hollingsed.

If the Council accepts the proposition that the Council may require financial assurances from Tesoro Savage only for VEDT operations, it leaves as an unknown the potential loss from rail or vessel incidents and the existence of adequate financial assurances to cover those losses. This leaves a substantial hole in the protection of the state, local government(s), and the public if an incident occurred due to rail or marine operations leading to an oil spill, explosion, or fire. The loss of life and property, the damage to the environment, and impact on tribal concerns may not be covered. This would be an unacceptable risk to the public.

Taken together, this evidence indicates an impact on the public interest associated with financial assurances. The Council therefore moves this issue into its balancing analysis.

VIII. LEGAL FRAMEWORK AND ANALYSIS UNDER RCW 80.50.010

A. Legal Framework

The Adjudication Order and FESI are now both before the Council, along with the balance of the record. This Recommendation draws from both the Adjudication Order and the SEPA process. There is considerable overlap in topics, issues, and substance between the FEIS and the Adjudication Order. There is a high degree of consistency between the results of each process, although specific content or conclusions may differ, based on the information presented. The Council carefully weighs the results of each process. On matters where there is a divergence of views, the Council makes the necessary findings within the record provided.

RCW 80.50.010, the EFSLA, provides the central legal framework for the Council's siting recommendation:

“The legislature finds that the present and predicted growth in energy demands in the state of Washington requires the development of a procedure for the selection and utilization of sites for energy facilities and the identification of a state position with respect to each proposed site. The legislature recognizes that the selection of sites will have a significant impact upon the welfare of the population, the location and growth of industry and the use of the natural resources of the state.

It is the policy of the state of Washington to recognize the pressing need for increased energy facilities, and to ensure through available and reasonable methods, that the location and operation of such facilities will produce minimal adverse effects on the environment, ecology of the land and its wildlife, and the ecology of state waters and their aquatic life.

It is the intent to seek courses of action that will balance the increasing demands for energy facility location and operation in conjunction with the broad interests of the public. Such action will be based on these premises:

(1) To assure Washington state citizens that, where applicable, operational safeguards are at least as stringent as the criteria established by the federal government and are technically sufficient for their welfare and protection.

(2) To preserve and protect the quality of the environment; to enhance the public's opportunity to enjoy the esthetic and recreational benefits of the air, water and land resources; to promote air cleanliness; and to pursue beneficial changes in the environment.

(3) To provide abundant energy at reasonable cost.

(4) To avoid costs of complete site restoration and demolition of improvements and infrastructure at unfinished nuclear energy sites, and to use unfinished nuclear energy facilities for public uses, including economic development, under the regulatory and management control of local governments and port districts.

(5) To avoid costly duplication in the siting process and ensure that decisions are made timely and without unnecessary delay.”²⁴¹

Tesoro Savage bears the burden of proving, by a preponderance of evidence, that the VEDT at its proposed site meets this and other requirements of law. Tesoro Savage has both the burden of going forward and the burden of persuasion.²⁴²

1. RCW 80.50.010 Requires the Council to Balance Need and the Public Interest to Determine Whether a Proposed Facility at a Particular Site Will Produce a Net Benefit

Citing RCW 80.50.010, the Washington Supreme Court has described EFSLA as seeking to “balance the increasing demands for energy facility location and operation in conjunction with the broad interests of the public.”²⁴³ The Council applies RCW 80.50.010 by weighing and balancing the need for the proposed facility against its impacts on the broad public interest, including human welfare and environmental stewardship. The Council then determines whether a proposed facility at a particular site will produce a net benefit justifying a recommendation of project approval. The Council has referred to this balancing as determining “need and consistency.”²⁴⁴

Tesoro Savage Must Demonstrate the Need for this Facility at this Location. Tesoro Savage appears to suggest that WAC 463-60-021 relieves it of an obligation to demonstrate the pressing need for its energy facility.²⁴⁵ WAC 463-60-021 says that “RCW 80.50.010 requires the council to ‘recognize the pressing need for increased energy facilities.’ For that reason, applications for site certification need not demonstrate a need for the energy facility.”

WAC 463-60-021, along with WAC 463-14-020, acknowledges that RCW 80.50.010 requires the Council to recognize the pressing need for increased energy facilities. The Council addressed the implications of this requirement when it declined to exclude the issue of need from its consideration of the Satsop Combustion Turbine Project application, stating that the Council may not override the statutory statement but that the Council may use evidence of need as one of the factors it considers.²⁴⁶ The Council’s determination recognizes that it is impossible to balance need and the public interest without evaluating the urgency of the need for a particular facility at a particular location. The statutory purpose of EFSLA is the “*selection and utilization of sites for energy facilities.*”²⁴⁷ Thus, even where the “pressing need for energy facilities” is taken as a given, the evaluation of the impacts, appropriateness of the proposed location, and operation of a particular facility in light of the need for energy from that particular facility is the Council’s central

²⁴¹ See also WAC 463-14-020.

²⁴² Council Order No. 733, at 6 n.12, *In re Olympic Pipeline Co.*, Council Order No. 733, *Olympic Pipeline Company*. (No. 96-1) (May 19, 1999), Order on Motions in Limine and Motions to Strike.

²⁴³ *Columbia Riverkeeper v. Port of Vancouver*, 188 Wn.2d 80, 95, 392 P.3d 1025 (2017) (citing RCW 80.50.010).

²⁴⁴ Council Order No. 753, at 12, *In re Chehalis Generating Facility* (Feb. 12, 2001).

²⁴⁵ Applicant Post-Hr’g Br. 10; Applicant’s Pre-Hr’g Br. (Corrected) 29.

²⁴⁶ Council Order No. 694, at 6, *In re Satsop Combustion Turbine Project* (No. 94-1) 694, at 6 (Modified Apr. 15, 1996).

²⁴⁷ RCW 80.50.010 (emphasis added).

task. Tesoro Savage has tacitly acknowledged the pragmatic necessity of this inquiry into the need for its proposed facility when, in its presentations to the Council, it addressed in detail the need for this facility at this location.²⁴⁸

Tesoro Savage May Demonstrate that the Proposed Facility Will Benefit Refiners rather than End Users. In evaluating need, RCW 80.50.010(3) requires the Council to consider whether a proposed facility will provide abundant energy at reasonable cost. The Council has evaluated this factor as part of its overall analysis of need. Tesoro Savage may demonstrate that its proposed facility will benefit only refiners, rather than end users, but the lack of demonstrated benefit to end users may impact the outcome of the Council's balancing analysis.

Tesoro Savage is not Required to Restrict its Evidence about Need in Washington Geographic Locations. The parties disagree about the proper geographic focus of the Council's analysis of need. As the Council has previously stated, the proper weight to be given to need for energy versus the broader public interest will vary from facility to facility, depending on the facts.²⁴⁹ The Council determines in this case, considering the nature and intended use of the proposed facility, that it should not limit its inquiry to impacts and benefits exclusively within Washington.

Tesoro Savage Must Demonstrate that the Proposed Project's Impacts on the Public Interest are Outweighed by the Need for this Facility at this Location. Tesoro Savage also focuses on the Legislature's finding of a pressing need for energy facilities by arguing that EFSLA requires the siting of facilities despite significant impacts on the public interest: "EFSEC's authority is ... accompanied by a statutory acknowledgment that a project will have significant impacts;" that "facilities must be sited despite such [environmental] impacts;" and that "EFSLA assumes that facilities will have 'significant impact.'"²⁵⁰ Tesoro Savage bases this argument largely on the presence of the word "and" in the second sentence of RCW 80.50.010: "It is the policy of the state of Washington to recognize the pressing need for increased energy facilities, *and* to ensure through available and reasonable methods, that the location and operation of such facilities will produce minimal adverse effects on the environment, ecology of the land and its wildlife, and the ecology of state waters and their aquatic life."²⁵¹

The presence of the word "and" in the second paragraph of RCW 80.50.010 does not require that a needed facility be sited, regardless of its impact on the public interest. The first paragraph of RCW 80.50.010 specifically found that the state required a body to consider the selection and utilization of proposed sites for the energy facilities that the Legislature had acknowledged were needed. Moreover, the second paragraph of RCW 80.50.010 requires the Council not only to "recognize" the need for energy facilities, but also "ensure" through available and reasonable methods that the location of such facilities will produce minimal impacts on the environment.

²⁴⁸ See for example, Applicant's Pre-Hr'g Br. (Corrected) 29-30; Applicant's Post-Hr'g Br. 10-17.

²⁴⁹ See for example, Council Order No. 753, at 12-13, *In re Chehalis Generating Facility* (Feb. 12, 2001); Council Order No. 754, at 13, *In re Sumas Energy 2, Inc.* (No. 99-01) (Feb. 16, 2001); Council Order No. 803, at 16, *In re BP Cherry Point Cogeneration Project* (No. 2002-01) (Oct. 26, 2004).

²⁵⁰ Applicant Post-Hr'g Br. 6, 4, 7.

²⁵¹ RCW 80.50.010 (emphasis added).

In addition to considering the language in RCW 80.50.010, the correct application of this statute depends also on the requirements of RCW 43.21C.030 and RCW 43.21C.020, State Environmental Policy Act (SEPA) provisions, and on WAC 463-47-110(1), the Council's rule implementing these SEPA provisions. RCW 43.21C.030 requires that state laws, policies, and regulations be interpreted and administered in accordance with SEPA's policies "to the fullest extent possible." Such SEPA policies are detailed in three subsections of RCW 43.21C.020. First, agencies are to use all practicable means to foster the general welfare, create conditions under which human beings and nature can coexist, and fulfill the requirements of present and future generations.²⁵² Second, consistent with other considerations of state policy, agencies are to take various actions, including fulfilling the responsibilities of each generation as trustee of the environment for future generations; assuring that Washington citizens have safe and healthful surroundings; using the environment without degradation or risk to health or safety; maintaining an environment which supports diversity and variety of individual choice; achieving a balance between population and resource use to permit high standards of living; and enhancing the quality of renewable resources.²⁵³ Third, the Legislature recognized that "each person has a fundamental and inalienable right to a healthful environment."²⁵⁴

The Council implemented these SEPA requirements in WAC 463-47-110. WAC 463-47-110(1)(a) summarizes that "[t]he overriding policy of the council is to avoid or mitigate adverse environmental impacts which may result from the council's decisions." In this context, the word "overriding" means "dominant, principal, primary."²⁵⁵ WAC 463-47-110(1)(b) and (2)(c) then explicitly incorporate the policies in RCW 3.21C.020 by setting out the policies and procedures that the Council shall follow.

In light of all these considerations, EFSLA does not require the Council to recommend project approval notwithstanding significant impacts on the public interest that protective measures cannot adequately mitigate. The Council must determine whether the facility Tesoro Savage proposes for this site will produce a net benefit, giving appropriate weight to impacts based on their likelihood and severity,²⁵⁶ with the proper weight varying depending on the facts.²⁵⁷ The Council has discretion in this regard because, as the Washington Supreme Court has noted, EFSLA is a "unique statutory framework" that grants "much discretion to both the Council and the governor," with the restrictions placed on the Council characterized as "largely procedural with some guidance as to what issues should be considered."²⁵⁸

²⁵² RCW 43.21C.020(1).

²⁵³ RCW 43.21C.020(2).

²⁵⁴ RCW 43.21C.020(3).

²⁵⁵ *Webster's Third New International Dictionary* 1609 (1981).

²⁵⁶ Applicant Pre-Hr'g Br. (Corrected) 24.

²⁵⁷ See for example, Council Order No. 753, at 12-13, *In re Chehalis Generating Facility* (Feb. 12, 2001); Council Order No. 754, at 13, *In re Sumas Energy 2, Inc.* (No. 99-01) (Feb. 16, 2001); Council Order No. 803, at 16, *In re BP Cherry Point Cogeneration Project* (No. 2002-01) (Oct. 26, 2004).

²⁵⁸ *Friends of Columbia Gorge v. EFSEC*, 178 Wn.2d 320, 334, 310 P.3d 780 (2013).

2. The Council Rules Do Not Require the Council's Balancing Analysis to Apply a Three-Tier Decisional Hierarchy

After proffering its interpretation of RCW 80.50.010, Tesoro Savage then interprets chapters WAC 463-60 and WAC 463-62 as requiring the Council to implement the following three-tier decisional hierarchy. First, for the six topics identified in WAC 463-62 (seismicity, noise, fish and wildlife, wetlands, water quality, and air quality), the Council must view compliance with the standards stated in that rule as sufficient for site certification unless the Council exercises its substantive SEPA authority.²⁵⁹ Second, for topics other than the six identified in WAC 463-62, the Council must look at the Council's WAC 463-60 application guidelines to determine whether the guidelines "identify federal and state laws and regulations that set the legal standard for the Council's recommendation."²⁶⁰ If the application guidelines do so, the application guidelines set the legal standard for the Council's recommendation on that topic.²⁶¹ Third, if the application guidelines do not reference federal and state regulatory standards, the Council is to apply the balancing test in RCW 80.50.010.²⁶² For the reasons explained below, the Council disagrees with Tesoro Savage's contention that this decisional hierarchy is applicable.

Tesoro Savage is incorrect that with regard to six very significant topics — seismicity, noise, fish and wildlife, wetlands, water quality, and air quality — WAC 463-62 limits the Council's adjudication review to determining whether the project meets the stated standards.²⁶³ The six topics covered by WAC 463-62 are central to the Council's present balancing of need and the public interest. Nothing in WAC 463-62 purports to remove consideration of these topics from the Council's statutorily required balancing analysis.

WAC 463-62 is inapplicable to the Council's current balancing process. However, in order to analyze all the issues raised by Tesoro Savage, the Council will, in this Report, evaluate whether Tesoro Savage has demonstrated that its application meets the WAC 463-62 criteria for seismicity, noise, fish and wildlife, wetlands, water quality, and air quality.

WAC 463-60 Does Not Establish Standards for Project Approval. Tesoro Savage is also incorrect that in evaluating topics other than the six topics identified in WAC 463-62, the Council must look at the Council's WAC 463-60 application guidelines to determine whether the guidelines "identify federal and state laws and regulations that set the legal standard for the EFSEC's recommendation" and, if the guidelines identify such laws or regulations, they provide the legal standard for the Council's recommendation.²⁶⁴ As Tesoro Savage concedes elsewhere,²⁶⁵ WAC 463-60 is procedural and does not establish substantive standards. By its own terms, WAC 463-60-010 defines WAC 463-60 as containing "guidelines" for applicants about what an application should contain.²⁶⁶ The Washington Supreme Court has confirmed that the goal of WAC 463-60 is to give the Council an informational starting point for the rest of its information-

²⁵⁹ Applicant Post-Hr'g Br. 5.

²⁶⁰ Applicant Post-Hr'g Br. 6-7.

²⁶¹ Applicant Post-Hr'g Br. 7.

²⁶² Applicant Post-Hr'g Br. 5-7.

²⁶³ Applicant Post-Hr'g Br. 5.

²⁶⁴ Applicant Post-Hr'g Br. 7.

²⁶⁵ Applicant Pre-Hr'g Br. (Corrected) 21-22.

²⁶⁶ See also WAC 463-60-012, -065, -105, -115.

gathering process.²⁶⁷ Nowhere does the chapter purport to expand its reach beyond application contents to set actual substantive regulatory standards that the Council must apply.²⁶⁸

The Council’s RCW 80.50.010 Balancing Applies to all Relevant Topics, Regardless of Whether they are Mentioned in WAC 463-62 or WAC 463-60. Tesoro Savage suggests that for topics that are neither identified in WAC 463-62 nor associated with a federal or state regulatory standard in WAC 463-60, “EFSEC’s consideration of the subject matter is pursuant to RCW 80.50.010 and EFSEC must seek to achieve all of the statutory goals, including the need for abundant energy and other public interest factors.”²⁶⁹ The Council weighs and balances the need for the proposed facility against all its impacts. This analysis must, of necessity, consider all subject matter areas, not just those that WAC 463-62 or WAC 463-60 does not address.

3. The Council May Consider Relevant State Energy Policies

While the Council’s responsibility is focused on the appropriate siting of energy facilities, it does not operate in a policy vacuum. Previous Council decisions have analyzed projects’ consistency with the state’s energy strategy, utilities’ integrated resource plans, regional power plans, and state policy directives favoring deployment of renewable technology, as part of determining each project’s need and benefits.

The Council is not bound to implement these policies, but past Council decisions have recognized alignment with other state energy policies as a factor to consider when analyzing need and consistency. Accordingly, these statutes inform the Council that Washington State energy policies include the objectives of reducing dependence on fossil fuels and transitioning to a clean energy economy, with these goals balanced against the need to maintain the availability of energy at competitive prices for consumers and businesses.

B. Need, Broad Public Interest, and Economic Benefits

1. Need

The Council will begin its analysis by considering the need for the VEDT. The parties agree that consumer²⁷⁰ demand for refined petroleum products in PADD V is likely to remain roughly stable over the life of the project and that sufficient refinery capacity exists to meet state and PADD V consumer demand for refined petroleum products over that same period. The parties also agree that consumers in PADD V would be unlikely to notice differences in retail prices attributable to the VEDT.

²⁶⁷ *Friends of the Columbia Gorge, Inc. v. State EFSEC*, 178 Wn.2d 320, 335–36, 310 P.3d 780 (2013).

²⁶⁸ WAC 463-60-352, cited in Applicant Tesoro Savage LLC’s Post-Hearing Brief at 7 n.15, is illuminating. WAC 463-60-352(4) asks applicants to “identify all federal, state, and local health and safety standards *which would normally be applicable* to the construction and operation of a project of this nature and shall describe methods of compliance therewith.” (Emphasis added.) This language acknowledges that in EFSEC proceedings RCW 80.50.110 and .120 preempt state and local laws and regulations and that those laws and regulations are therefore not the automatically applicable regulatory standards. WAC 463-60 asks applicants about such laws and regulations because such information is self-evidently useful but a request for information does not establish regulatory standards.

²⁶⁹ Applicant Post-Hr’g Br. 7 (alteration in original).

²⁷⁰ In this context, consumer means end users of the product; both individuals and industry end users.

In regard to refiners' need, there is little evidence that the VEDT will directly benefit refiners in Washington, particularly given that many in-state refineries already have CBR capacity. Refiners in California or elsewhere in PADD V could benefit from the ability to source crude from the VEDT due to supply-chain flexibility and reliability, access to a variety of crude oil types and blends, and potentially competitive pricing. Washington refiners could indirectly benefit from the availability of VEDT-sourced crude to California refineries if, for example, the VEDT reduced competition for ANS crude, allowing Washington refiners to continue sourcing from ANS despite declining production. The refiner that is known to benefit from the VEDT is Tesoro.

While Tesoro Savage has shown at least potential benefits to refiners from the VEDT, the VEDT is not *necessary* to secure refiners' supplies of crude oil because sources of crude oil will remain available to PADD V refiners whether or not the VEDT is constructed. The benefit to refiners from the project is the marginal value refiners in Washington and across PADD V would derive from sourcing crude from the VEDT rather than some other channel, and any resulting indirect benefits experienced by consumers of energy.

So given the fact that there is sufficient refinery capacity to meet current and future demand, the main beneficiary is Tesoro and possibly other refiners, that end users will not see a price difference attributable to the VEDT and the VEDT is not necessary to secure crude oil for refineries, the Council views the need for the VEDT as low.

2. Public Interest

This section incorporates by reference the facts and determinations set forth reached in Section VII, as to the impacts to the broad public interest. The intent of this section is to provide the Council's conclusions in regards to the impacts, to understand the outcome of the balancing test below. The Council's conclusions below are supported by both the adjudicative record and the FEIS, unless specifically stated that there is a difference between the two. In those cases only, the Council explains why it relies on one rather than the other.

a. On-Site Impacts

Seismic issues. The Council finds that the VEDT will be located in a seismic-event-prone location in which there is 15 percent chance of a large CSZ megathrust earthquake in the next 50 years, during the expected design lifetime of the VEDT. Based on the evidence in the adjudicative record, the Council believes that the ability and sufficiency of the proposed physical alterations to behave in an earthquake in a determined, safe, and predictable manner in any type, size, or duration earthquake have not been established, especially for the most serious types of earthquakes. The adjudicative record, as well as the FEIS, supports a determination that this failure will result in substantial oil spill into the water, fire and explosion, with the release of toxic vapors. This poses a danger to nearby populations at the JWC and Fruit Valley Neighborhood, along with other workers at the Port, and emergency responders who will be responding to the event.

There are several differences between the findings in the adjudication order and the FEIS.

The FEIS had a lower risk of an earthquake occurring than was found in the Adjudication Order.²⁷¹ In addition, the FEIS used the Risk Category II for its standard in building design, while the Council found Risk Category III more appropriate for this location. The FEIS also concluded that the ground improvement mitigation would reduce the risk of structural damage, and other identified mitigation specific to spill response could reduce impacts should a spill occur regardless of cause, which are not totally consistent with the Council's adjudication findings.

In addition, if WAC 463-62-020 applies, the Council finds that Tesoro Savage did not meet its burden of establishing compliance with the State Building Code. As explained earlier in this report, based on expert testimony at the adjudication hearing, the Council finds that the VEDT should have been designed using the Risk III category. Even if the rule is deemed to apply and that Tesoro Savage established compliance, the FEIS provides sufficient support for the Council to exercise SEPA substantive authority to determine that the VEDT poses unacceptable risk of seismic failure.

Vessel operations at the dock. The Adjudication Order found that there is significant risk of spill at loading, and that the measures taken to capture spills are insufficient to prevent either damage from a large spill, or from the cumulative impact of small spills. In addition, the Order found that booming, as a mitigation measure, will be ineffective. The FEIS supports the finding that booming at the dock will be ineffective. Finally, although the adjudication did not specifically focus on the consequence of a spill during loading in the case of an earthquake, the FEIS did state that in the case of a seismic event, a resulting oil spill would have a significant adverse effect on the water as the oil reached the Columbia River.

Therefore, the Council concludes that taking into account all the possible scenarios and safety measures, the risk of spill at loading is significant. And the ability to minimize the impact from a large spill is limited, while the cumulative effects of small spills is significant.

Wetlands. As stated, Tesoro Savage takes the position that, in the absence of the Council's exercise of its substantive SEPA authority, WAC 463-62-050 sets the decisional standard for the Council's current consideration of wetlands impacts.²⁷² Although the Council disagrees, we nonetheless consider whether Tesoro Savage has demonstrated compliance with this rule.

Tesoro Savage contends that the scope of the rule is limited to the general footprint of the VEDT itself and that Tesoro Savage is in compliance because no on-site wetlands will be filled and three wetlands in the vicinity will be unaffected by the VEDT's routine operations. Tesoro Savage contends that nonroutine spills are not covered by this rule but instead are addressed by other spill prevention and response measures.

The Council believes that Tesoro Savage's reading and application of the rule are incorrect. In all situations, the Council's intent is to achieve no net loss of wetlands. In all situations, wetland impacts are to be avoided whenever possible and, if they cannot be avoided, the impacts must be corrected by restoration, replacement, or preservation of wetlands.

²⁷¹ The FEIS used a Maximum Considered Earthquake (8.9), which it stated would have a 2 percent probability of exceedance in 50 years. 3-43, Appendix C2. Section 3.1.1.

²⁷² Applicant Post-Hr'g Br. 44-45.

The FEIS found that although there are no wetlands present at the VEDT, and buffers for the adjoining wetlands do not extend onsite, offsite wetland could be affected by construction if stormwater runoff were not properly managed and/or through temporary changes in wetland hydrology from the installation of vibroreplacement stone columns.

Tesoro Savage has not attempted to demonstrate how it would address wetland mitigation if oil spills associated with the facility impact wetlands or how Tesoro Savage would comply with this rule. It has also not demonstrated how it would address wetland impacts from construction, as found by the FEIS. The Council thus concludes that Tesoro Savage has not met its burden of demonstrating compliance with this rule.

The Council believes that the impact on wetlands from an oil spill can be significant. Wetlands support a wide diversity of habitats and plant communities that support many species of birds, mammals, reptiles, amphibians, fish, and invertebrates. And oil spilled in the Columbia River has the potential to damage wetlands. Most crude oils affect wetlands by the physical smothering of leaves and soils. Wetlands are likely to become oiled after a spill because wetlands are located in the upper intertidal zone where oil usually strands. Therefore, the Council believes that potential wetland impacts may create an impact on the public interest.

Land Use Planning – Vancouver’s Long-Term Vision. The Council relies on the adjudication for its determination regarding compliance with Vancouver’s Comprehensive Plan Policy as the FEIS does not directly address this issue. Vancouver City Manager Eric Holmes provided testimony on this issue, stating that the VEDT is inconsistent with particular sections of the Comprehensive Plan. Although Tesoro Savage put forth expert testimony from a land use planning expert, the Council finds that Mr. Holmes, as the Vancouver City Manager, a former land use planner himself, to be in the best position to know the intent, purpose and application of Vancouver’s plans, especially in relationship to Vancouver’s vision of its city as relates to future development.

Based on the testimony at the adjudication, the Council concludes that the VEDT at the terminal site and rail corridor are inconsistent with the balance of Vancouver plans and ordinances, and interests, as follows: Strategic Plan Goals 1 and 7; Comprehensive Plan Goals CD-6 (Neighborhood livability), CD-9 (Compatible uses), CD-10 (Complementary uses), CD-15 (Public health and the built environment), EN-3 (Energy conservation), EN-6 (Habitat), EN-7 (Endangered species), and EN-11 (Hazard areas).

Workers at the Port. The adjudication found that the ILWU Local 4 has approximately 200 full-time and approximately 100 part-time workers at the Port. The union members were concerned about working next to the VEDT site and decided to oppose the project.²⁷³ Having an understanding of conditions and operations at the Port, the members decided that there was a high potential for accidents and a high potential for an oil spill. In addition to other effects of such an incident, there could be a shutdown of operations and the Longshoremen would lose work.²⁷⁴ This was not directly addressed in the FEIS. Based on the testimony of the ILWU Local 4

²⁷³ Tr. 3564, vol. 15.

²⁷⁴ Tr. 3565, vol. 15.

representative, who has firsthand knowledge of the site and how it affects members working at the Port, the Council finds that there is a risk of an accident resulting in a spill, fire or explosion, and these workers would be exposed to increased risk of working in an unsafe environment.

Jail Work Center. The adjudication records provides substantial evidence as to the risks and impacts to the JWC from an incident at the VEDT. It also establishes the constitutional standards for the County in regards to the care and custody of the inmates.

The FEIS also addressed the impacts from a large fire and/or explosion at the VEDT and its impact on the JWC, which finding is consistent with that in the Adjudication Order. It found that, if required, evacuation of the JWC would follow the County Comprehensive Emergency Management Plan. These nearby populations could experience health impacts from potential smoke inhalation and decreases in air quality prior to evacuation.²⁷⁵ In addition, smoke from burning crude oil could disperse over a wider area and require short-term evacuation of the JWC and nearby residences, resulting in potentially large volumes of traffic on local roadways.

Based on all the risks and impacts, the Council concludes that there is significant risk to the JWC population and subsequent potential damages. This includes the potential harm to the JWC population if an event occurs, the barriers to a successful evacuation of the JWC population, and the lack of resources to respond to an incident at the VEDT when resources for the JWC population are needed. Given the fact that local government has a higher constitutional standard to maintain for the care and custody of the inmate population, the risk and barriers to this population posed by the VEDT are not acceptable.

Emergency Response Capabilities. An incident at the VEDT may result in an explosion, fire, and/or crude oil spill, with the resulting release of toxic and flammable vapors. The Council must look at the emergency response capacity available to protect the citizens and the environment from these damages that may result from an incident. The Council reviewed the emergency fire response capacity, law enforcement response capacity, and emergency evacuation capacity.

The adjudication records document the limitations and gaps in the emergency response capabilities of emergency responding agencies if an event at the VEDT would occur. In addition, the FEIS looked at emergency response capabilities and found gaps, which proposed mitigation measures may help to reduce or eliminate.

The Council, based on the adjudication and the FEIS, finds there are weaknesses in the emergency evacuation notification system. These limitations can hamper the ability to provide accurate information to incident command and inform the community of actions to be taken. The Council also acknowledges other major obstacles emergency responders must overcome, such as traffic congestion and road blockages. The Council is not convinced that the mitigation measures will reduce these gaps sufficient enough to protect the citizens and the environment. Taken together, all these may impede the ability to successfully evacuate and/or respond to an incident at the VEDT, and pose a negative impact to public interest.

Socioeconomic Impact. Both proponents and opponents in the adjudication, provided a

²⁷⁵ FEIS 4-131.

detailed analysis of the VEDT's potential effect on property values. Different models were used and different assumptions were made. The Council finds that the analyses presented by both sides are too speculative to rely upon, although all models do show some potential decline in residential property values. The extent and significance of the decline are too speculative. The FEIS also concludes that property value within a mile of the rail line would be expected to decrease by 0 to 1.5 percent with the higher number associated with properties closest to the line, and would constitute a disproportionate impact to minority or low-income communities.

In addition, as detailed above, there are a number of potential negative impacts from the VEDT that Tesoro Savage's expert acknowledged. However, there is no detailed analysis either in the adjudication or the FEIS regarding the magnitude of those impacts.

Environmental Justice. The adjudication record supports a finding that there is also a disproportionate impact on minority and low-income populations. The Fruit Valley neighborhood is a subarea with a higher percentage of Hispanic, Asian, and Native American persons than the rest of Vancouver. The neighborhood also has a high poverty level.²⁷⁶ In the Fruit Valley neighborhood, some residences will be as close as 1,100 feet from the inbound route and 240 feet from the outbound route.²⁷⁷ Lower income levels and the possibility of limited transportation options make it more difficult for these residents to move.

The FEIS stated that environmental justice populations can be more sensitive to impacts than the average population due to additional factors associated with income, health and safety. The impacts of train-related increases in air emissions may be greater in low-income populations and those lacking health insurance, as these individuals may experience higher exposure and have less access to health care. This means there is less preventive health care and this can lead to more health issues and a greater demand for emergency response.

The FEIS concluded that there could be impacts to minority and low-income populations from construction of the VEDT, including exposure of hazardous materials, changes to air quality, noise, visual effects, and disruption to traffic patterns.²⁷⁸ However, these impacts are minor and short term in duration.

Given the proximity of the VEDT to the Fruit Valley Neighborhood, the VEDT will have a greater impact on its residents than other areas of Vancouver. Although the neighborhood is zoned for industrial uses, this does not mean that the incoming industry should have a disproportionate adverse impact on its residents. The increased emissions of pollutants, even within acceptable regulatory standards, could have an adverse impact on the health of these residents.

Taken together, the Council finds that there will be a disproportionate impact to minority and low-income populations that will affect the population's health and safety.

²⁷⁶ PFT of Wechner 24.

²⁷⁷ PFT of Wechner 12.

²⁷⁸ FEIS 3-525.

Air Quality - Major Versus Minor Source. The adjudication found that the VEDT would be a minor emitting facility. After reviewing BP's total calculations for VOCs from the stationary sources (1.89 tpy from the boilers, 8.64 tpy from the marine loading process, 21.7 tpy from the tanks, 00.822 tpy from component leaks, and 0.00689 from the fire water pumps for a total of 33.15 tpy), and taking into account the deviations from the findings above, the tpy appears to fall below the major source limit, making the VEDT subject to a minor permit (NOC) to address emissions from the facility rather than a PSD permit.

Ambient Air Quality. Ambient air quality standards limit the amount of certain pollutants that may be in the air which people breath. In order to meet this requirement, an applicant conducts an air quality analysis to evaluate the impacts of the emissions from a new proposed stationary source. In the adjudication, the Council finds that the emissions from the VEDT comply with ambient air quality standards when looking at the results for both the criteria pollutants and the TAPS from stationary sources.

However, the Council also finds that the VEDT is likely to cause health impacts to the Fruit Valley Neighborhood and the workers and inmates of the Clark County Jail Work Center due primarily to the amount of DPM and nitrogen dioxide emitted at the site, along with the health risks associated with these pollutants.

Air Quality - FEIS. The information in the FEIS differs in some respects from that presented at hearing. However the conclusions are consistent in regards to meeting air permit standards, emissions outside that were considered in the air permit, and the increased (but relatively small) health impacts. The emissions calculations were updated after the adjudicative record closed, in accordance with the air permit, as well as with information requested from Tesoro Savage for more extensive modeling.

The FEIS also analyzed the health risk of the emissions. Risk for carcinogens is expressed as a probability of an individual contracting cancer out of 1 million people who are exposed to the same concentrations of the same pollutant over a lifetime (often defined as 70 years), and is referred to as lifetime excess cancer risk. Exposure parameters, and the resulting exposure factor, for each of the receptor type are provided in Table 3.2-10.

Greenhouse Gas Issues. In regard to GHG, the Council analyzed the VEDT's consistency with the state's energy policies, including the GHG requirements. The Council found that during the VEDT's fourth compliance period (2026-28), sources emitting at least 85,000 metric tons per year are required to comply. Thus, the VEDT, which is estimated to emit 86,000 metric tons of GHG per year, will eventually be required to reduce its emissions in accordance with the Clean Air Rule.

The Council may take into account the health impacts from ozone events and secondary aerosol formation, and impacts from other pollutants, including GHG. Based on the adjudicative record and the findings in the FEIS, the Council determines that although the VEDT would meet permit standards, there are likely to be negative health impacts to the Fruit Valley Neighborhood and the JWC, and negative impacts from GHG.

Financial Assurances. Tesoro Savage is a limited liability company with limited assets. The majority of the assets will be the structures at the VEDT; the land will be leased from the Port. Based on its corporate structure, without specific indemnification provisions in its contract with its two parent companies, the joint venture partners will not be liable for any loss results from VEDT operations. Therefore, outside of insurance coverage, there will be little to no other funds available to compensate third parties for potential losses.

The Council takes notice that should Tesoro Savage, as a limited liability company, file for bankruptcy upon a catastrophic incident, any insurance (1) may not be immediately available; and (2) could become part of a bankruptcy estate, distributable under the bankruptcy laws in accordance with the normal priorities to creditors, including the state and other persons or entities damaged.

The lease with the Port requires a certain level insurance for property damage. In addition, the lease requires third-party liability coverage for bodily injury and property damage from incidents that occur on the terminal site: \$10 million per occurrence and \$15 million aggregate in a policy year. A contractor's pollution liability policy will be in place during the facility construction, while a pollution legal liability policy in the amount of \$25 million will be in place once the facility is operational.²⁷⁹ As both proponents and opponents stipulate, based on the potential incidents that could occur at the site and the resulting damages, the Council finds these limits to be too low.

The Council must necessarily also look at potential incidents and resulting damages on the rail and vessel corridors. But for the VEDT, the transportation of crude oil to and from the facility would not occur. Thus, but for the existence of the VEDT, there would not be a risk of these potential losses. As a result, the financial assurances need to include assurances that the risk of damage is covered for all three segments of the facility operations. This is not the same as saying that Tesoro Savage is the entity that must obtain insurance for events along the rail line or in the Columbia River. The Council must, however, consider the possibility of uncovered losses and the lack of financial assurances.

As noted previously in this Order, PHMSA considers damages in excess of \$5.75 billion a conceivable result of a crude-by-rail accident. With the VEDT's storage capacity equivalent to six unit trains, the Council notes the possibility of losses an order of magnitude larger than the incidents described as comparable by Ms. Hollingsed.

If the Council accepts the proposition that the Council may require financial assurances from Tesoro Savage only for VEDT operations, it leaves as an unknown the potential loss from rail or vessel incidents and the existence of adequate financial assurances to cover those losses. This leaves a substantial hole in the protection of the state, local government(s), and the public if an incident occurred due to rail or marine operations leading to an oil spill, explosion, or fire. The loss of life and property, the damage to the environment, and impact on tribal concerns may not be covered. This would be an unacceptable risk to the public.

Taken together, this evidence indicates an impact on the public interest associated with

²⁷⁹ Tr. 1715–16, vol. 8.

financial assurances.

b. Off-Site Impacts

Rail corridor issues. Based on both the adjudication record and the FEIS, rail traffic associated with the VEDT raises the potential for impacts to public health, safety, property, and the environment in four broad areas: derailments and accidents along the rail route, fire risks along the route, landslide risks along the route, and the temporary blockage of at-grade crossings

Derailment. Based on the adjudication record, the Council finds that there is risk a derailment will occur in Washington every 2.4 years on average with an average of 12.7 cars involved in the accident. This is similar to PHMSA projections, which support the reliability of the projections. The Council does not agree with the FEIS, which has a lower probability of an accident, which was adjusted for safety factors such as enhanced braking or use of DOT-117 tanks cars. As outlined above, these safety factors are unproven, the commitment to use DOT-117 may not be permanent and regulatory changes, such as the recent rollback of the enhanced braking requirement, may reduce safety. The Council does agree that safety improvements reduce risk, but given the extensive damage that could occur, the risk is significant. Therefore, the Council believes there is a higher risk of derailment, which would have devastating impacts on the public health and safety, and the environment.

Landslide. In addition, the rail corridor has significant portions built on top of landslide deposits, which makes the area more susceptible to future landslides. Based on the adjudicative record, the Council finds that landslides along the rail route pose a real albeit unquantifiable risk of hitting and derailing the VEDT's CBR unit trains or causing track distortions that could cause a derailment.

Consequence of a derailment – Oil Spill. The adjudication record had a higher spill volume amount in the case of a derailment than that found in the FEIS. This difference is because the FEIS had a higher confidence level in the safety and mitigation measures. The Council does not have that high confidence in those measures, for the reasons stated above, and therefore agrees with the higher spill volume predicted in the case of a derailment found in the Adjudication Order.

Although the adjudication record and the FEIS disagreed on the risk of a derailment and the oil spill volume, there was agreement that if a derailment of a certain size occurred, the consequences would be severe. Both records support a conclusion that all but very small derailments would lead to fire and an oil spill. An oil spill has a high chance of reaching a body of water, causing significant unavoidable impacts to water quality, and the environment, which is discussed in more detail in those sections below. The FEIS concluded that a crude oil spill resulting from a rail incident could result in significant unavoidable impacts, depending on the size, location, and extent (e.g., duration or intensity) of the incident. The Council agrees. A more-detailed discussion of the significant unavoidable impacts is in the Water Quality section below.

Consequence of a derailment - Fire and Explosion. In addition, in all but a small derailment, the record supports a finding that a fire and/or explosion will occur. Depending on the location, a fire could have catastrophic impact on the environment and nearby populations. With the limited response capabilities, the topographic and vegetative conditions in large portions of the

rail corridor, and the proximity in some locations to residential and other structures, the likelihood and intensity of a fire would have great impact on the public interest.

The Council also concludes that other impacts from a derailment, as outlined in the FEIS and the adjudication record, include limited, and at time unavailable response capabilities. The record suggests no locations along the corridor where the consequences from a fire or spill would be minor or modest. Public health and safety impacts include not only impacts from smoke, vapors, fire, or explosion, but also potential drinking water contamination from spills. Areas at risk include water intakes along the Columbia River for Kennewick, Pasco, and Richland, as well as numerous wells and intakes at aquifers in inland areas. Washougal and the Spokane region are each served by a sole-source aquifer. Tribal reservations and treaty ceded areas, and culturally important fishing, hunting, and other activities are at risk from rail accidents and prolonged clean-up. Derailed trains can also directly damage adjacent buildings even without a spill or fire.

Taken together, this evidence supports a finding that fires are a likely accompaniment to derailments and that the topography and vegetation along the route pose a real, albeit unquantifiable, risk of urban fires or wildfires, with significant damage to the environment and other building structures.

Emergency response capabilities. Emergency response plans and assets exist at various locations throughout the rail corridor, but face a range of limitations in addressing the derailments, spills, and fires that are projected to occur repeatedly throughout the lifetime of VEDT. The Adjudication Order finds that emergency response capacity does not exist along the rail route to ensure timely and effective response to rail emergency sufficient to protect lives, public safety, property, and the environment. The FEIS also found that there are emergency capabilities along the rail corridor but identified many gaps. The FEIS also concluded that even the best emergency response preparedness will not eliminate severe impacts from certain spills. Taken together, the record supports, and the Council determines that there is insufficient emergency response capabilities along the rail route to successfully respond to an incident that results in an oil spill, fire, or explosion. Therefore, this is significant risk to public safety, health, and the environment.

At-grade crossing impacts. Both the FEIS and the adjudicative record found that there will be delays at at-grade crossings, although there is disagreement on the length of the delays. However, depending on the variables, either conclusion is reasonable. Regardless of which result is relied upon, the important factor is that both the FEIS and the adjudication found that delays at at-grade crossing will impact emergency response services. The Adjudication Order found that regardless of the appropriate estimated delay along the route, Tesoro Savage has not provided adequate information about impacts that rail crossing delays will have for emergency services. Taken together, this record supports a conclusion that Tesoro Savage has not sustained its burden of demonstrating that VEDT trains won't impact the public interest by blocking at-grade crossings in Washington and along the rest of the rail route. And the FEIS concluded that significant unavoidable impacts to public services and utilities associated with the normal rail traffic related to the VEDT. EFSEC staff did not identify any mitigation that could be imposed by the Council to address impacts to public services and utilities identified in the FEIS. Therefore, based on the entire record, the Council finds that there is a significant impact to the public safety from the delays at at-grade crossings resulting from VEDT rail traffic.

Land Use and Community Interests along the Rail Corridor - Washougal. As discussed above, there is a risk of an oil spill near Washougal that could have significant adverse impacts to that community. The Council finds, based on the FEIS and the adjudication record, that there is a risk that an oil spill near the Washougal wellhead could result in contamination of Washougal's water supply and that remediation may not be fully feasible or effective. Although the Tesoro Savage expert, Ken Ames, puts that risk at a much lower level than the expert for Washougal, Mr. Ames bases this on assumptions that may not be realistic. Mr. Ames assumes an "immediate" response time and immediate removal of any contaminated soil, an assumption that may not be borne out in reality. In addition, his analysis did not take into account the potential longer-term impact that might occur due to dissolution of various contaminants of concern from the free petroleum product and interaction with water at the surface or within the vadose zone. Due to the fact that this is Washougal's primary water source, and there is no ready backup water source, this risk of contamination and its consequences are clearly inconsistent with local community interests.

Land Use and Community Interests along the Rail Corridor - Spokane. As discussed above, both the adjudication and the FEIS found that a derailment in the Spokane area would have significant impacts to the community. The Council agrees that the VEDT will increase risk of derailments in Spokane. Spokane is particularly at risk of a derailment because the rail corridor is on elevated track through its urban core, raising the possibility that an intact derailed train could nonetheless cause significant impacts to life, health, and property. As to Spokane's water supply, the Council finds that there is a risk of contamination, although the risk of contamination may be lower than in Washougal because the Spokane wellheads are deeper. Both these risks impact local community interests.

Vessel operations. The VEDT will increase the risk of marine incidents on the Columbia River. The adjudication supports a 2 percent annual increase, while the FEIS states a 4 percent annual increase of incidents will occur. Regardless of the percentage, the Council finds that the increase caused by the VEDT is significant.

In the Adjudication Order, the Council found that The VEDT will increase the risk of total marine incidents for Columbia River traffic by approximately 2 percent. Depending on the size of the vessel, incidents are estimated to occur approximately once every 0.8 to once every 3 years to once every 57 years. Although many of the predicted incidents would not result in an oil release, when spills occur, the volumes can be significant with tanker collisions spilling between 58,700 to 102,500 bbl of oil, depending on the size of the vessel. Tanker groundings are predicted to release between 20,200 and 31,900 bbl of oil. The average spill size for all VEDT vessels, weighted by frequency of accidents by type, and with tug escorts reducing the frequency of groundings by 91 percent is 63,463 bbl, or 2.7 million gallons of oil. This is the equivalent of 95 percent of the contents of a 100 tank car oil train.

In the event of an incident the Adjudication and the FEIS estimated frequency and volume of spills. The FEIS projects vessel spills in the Columbia River from project vessels approximately twice as frequently as the applicant's analysis in the adjudication, but with spills sizes roughly one third as large. The FEIS project spills of any size are anticipated once every 17 years with

anticipated sizes varying slightly depending on whether Bakken crude or dilbit is involved, and modestly depending on the tanker vessel size and type of accident. And as set forth earlier, although the volumes may vary between the FEIS and the adjudication, the amount of oil will have significant adverse impacts on the water, the environment, tribal cultural and commercial fishing, commercial and recreational fishing, and damage to wetland and other biologics.

The record supports a finding that the risk of an incident and resulting damages is a significant impact to the public interest.

Ballast water management. The adjudicative record and the FEIS both support a finding that notwithstanding VEDT compliance with ballast water management requirements, there is some increased risk to fish and invertebrates near the VEDT. This risk comes from both the introduction of invasive species in the Columbia River ecosystem and the increased salinity from the ballast water. So although minimal, the record supports the Council's finding that ballast water management could impact water quality and aquatic species.

Wake stranding of fish. Both the Order and the FEIS support a finding that unique aspects of Barlow Point make it very susceptible to wake stranding although wake stranding can also be a seasonal issue at Sauvie Island and County Line Park. Vessel speed and wakes are primary causes of wake stranding at these locations. The Council agrees that wake stranding at these locations results from the VEDT increases in vessel traffic.

The Council also agrees with the mitigation measures in the FEIS, as potential mitigation to the wake stranding issue. However, as noted, the Council does not have the authority to impose all the suggested mitigation measures. To the extent that the mitigation measure related to reducing vessel speed is not implemented, the impact on wake stranding will not be reduced or eliminated.

Water Quality. Both the adjudication and the FEIS support a finding that there is a strong potential for an oil spill resulting from a train derailment or vessel accident. Depending on the location and intensity, the oil would reach the Columbia River, and may enter the Pacific Ocean. There is agreement that there are many state and federal laws requiring oil spill planning and response, and these measures may help mitigate the damage, but will be unable to lower the risk of a spill or the significant adverse impacts to water quality that would result from an oil spill. There is agreement that under optimal conditions, spilled oil can be recovered to 10 to 15 percent, but 3 to 5 percent recovery is more common. This means, and the Council finds, that if there is an oil spill, there would be a substantial amount of oil remaining in the water.

The Order and the FEIS also find, and the Council agrees, that there is substantial evidence from actual oil spills that demonstrates the potential for oil to sink, depicts difficulties in recovery efforts, and portrays impacts to the environment. The impacts of an oil spill include potential coating of the shorelines, oil in the water columns, and oil that will eventually sink. The oil spill will impact any fish in the area, such as salmon spawning or salmon migrating, as well as birds and other wildlife. In addition, there could be social, cultural, and economic impacts for those who use or rely on the river and its resources or who value the quality of a pristine environment.²⁸⁰ This could include loss to commercial fishers, including tribal commercial fishers and loss for

²⁸⁰ Tr. 3577-78, vol. 15.

recreational fishing, with its accompanying financial impacts. These impacts can have long-term effects on water quality. The Council determines, based on the Adjudication Order and the FEIS, there will be significant adverse impacts to water quality in the event of an oil spill.

Wetlands. The Adjudication Order and FEIS are consistent in finding that in the event of an oil spill, there would be significant adverse impacts to wetlands, as discussed in the Water Quality section. In addition, Tesoro Savage has not attempted to demonstrate how it would address wetland mitigation if oil spills associated with the facility impact wetlands or how Tesoro Savage would comply with this rule. Therefore, Council concludes that Tesoro Savage has not met its burden of demonstrating compliance with WAC 463-62-050.

The FEIS also looked at the impact to wetlands along the rail corridor. The rail corridor passes through or is adjacent to many wetland types, including riverine and lacustrine systems and a range of subsystems and classes (e.g., limited vegetation, emergent plants, shrub-scrub, forested, or aquatic bed). These include wetlands with natural and modified hydrology and topography, and a range of inundation categories from permanent to temporary and/or artificial. The FEIS finds, and the Council agrees, that Tesoro Savage has not addressed or provided a proposal to comply with the wetlands protection requirement in the event of a rail incident.

The Council believes that the impact on wetlands from an oil spill can be significant. Wetlands support a wide diversity of habitats and plant communities that support many species of birds, mammals, reptiles, amphibians, fish, and invertebrates. And oil spilled in the Columbia River has the potential to damage wetlands. Most crude oils affect wetlands by the physical smothering of leaves and soils. Wetlands are likely to become oiled after a spill because wetlands are located in the upper intertidal zone where oil usually strands. Therefore, the Council believes that potential wetland impacts may create an impact on the public interest.

Biological and Ecological Impacts. Among its rich biological resources, Washington's fish species play a critical role in the economic and cultural life of the people of the state. In particular, salmon is of iconic importance to Washington's various cultural communities, especially its tribal peoples. In Washington, salmon has historic and cultural value far beyond its economic value in the marketplace and as a food source. Salmon is very much treasured as part of the state's identity and history. The Columbia River is habitat for a rich diversity of species, including salmon and other endangered and threatened fish. Therefore the health of the river is of critical importance in the Council's task of balancing the considerations involved in energy facility siting. It is important that the ecology of Washington's unique riverine environment not be damaged and that the Columbia River in particular remain as healthy and productive as possible.

Contrary to what Tesoro Savage suggests, WAC 463-62-040 does not limit evaluation of fish and wildlife impacts to the specific footprint of the VEDT. The rule is clear that applicants are to select sites that avoid impacts to endangered, threatened, or priority species and, as the Adjudication Order concludes, the choice of this particular site for the VEDT is ill-advised because of the potential for oil spills, fires, and explosions. The rule requires 1:1 mitigation for impacted habitat, which, as the Adjudication Order says, is unlikely to be possible for damage from large oil spills. Finally, the rule requires Tesoro Savage to demonstrate no net loss of fish and wildlife habitat, which the Adjudication Order concluded that Tesoro Savage had not done. As a result,

even if WAC 463-62-040 applied to the Council's current analysis, Tesoro Savage has not demonstrated compliance.

Impacts to Salmon. Both the FEIS and the Adjudication Order support the determination that oil exposure to early-life stages of salmon has life-threatening impacts. The effects of oil can last for decades, particularly in long-lived species such as sturgeon. Both toxic and sub-lethal effects can lead to death of the organism. Impacts caused by dilbit include cardiotoxic effects in embryonic fish, such as pericardial edema, heart malformations, and reduced heart rate, which can reduce future aerobic performance and swimming ability, which can impact the ability to migrate and capture prey.

In addition, this impact can result in economic impacts to commercial and recreational fishing on the lower Columbia River. The Adjudication Order finds, and the Council agrees that there could be substantial economic loss due to the impact on salmon from an oil spill. The record as a whole supports the Council conclusion that substantial economic impacts from harm to biological and ecological resources could result from an oil spill associated with the VEDT.

Tribal Cultural and Economic Impacts. The Council relies on the evidence in the adjudication in making its determination regarding tribal cultural and economic impacts. The FEIS did not directly address many of these specific issues. The evidence in the hearing was from tribal members and experts with knowledge, education, and experience directly related to the issues being addressed. For those reasons, the Council found the opponent's evidence on tribal-related matters to be credible, and in most cases unrebutted. Although not directly addressed by the FEIS, where the FEIS did look at a tribal issue, its finding was consistent with the evidence at the adjudication.

Cultural Impacts. Tribal people have been living and subsisting in the same places along the Columbia River since before history was recorded. Tribal ties to the Pacific Northwest and the Columbia River are deep. There are a number of treaties that guaranteed tribes access to fish, hunt, gather, and protect sacred sites in their usual and accustomed places, first foods to practice culture, and continue their way of life and plan for the future, that cannot be abrogated. Tribal Parties have significant and unique cultural and economic interests at risk that are important not only to their tribes, but to other populations; to Washington's natural resources, in particular endangered salmon; and to the State of Washington. The Tribal Parties assert that their significant cultural interests are put at risk by the VEDT project, including the interests that they contend are protected by their treaty rights.

There are hundreds of irreplaceable cultural resources and sacred sites along the rail corridor, at least 500 sites in Klickitat County alone. Rail accidents and even maintenance activities can damage cultural sites that are important to tribal members' ability to reference their history and connection to place. An oil spill or fire can be particularly devastating to cultural sites. We agree that these resources' value cannot ever completely be restored if excavation moves artifacts and takes away their connection to a particular spot. The value of the resources along the Columbia River is beyond monetary. These resources are priceless, not only to Washington tribal peoples, but to all the people of the State of Washington and to the State of Oregon as well.

The Council finds that there are significant tribal cultural impacts. These impacts cannot be mitigated nor can the tribal people be compensated for these losses.

Tribal Fishing Impacts. Tribal members have been fishing the Columbia River from time immemorial, going back generations. Yakama Nation members consider themselves to be “river people.” They believe that fish is their lifeblood, particularly salmon, expressing it as taking care of the salmon so the salmon can take care of them.

Treaty and nontreaty fisheries in the main-stem Columbia River are managed according to a court-ordered agreement under the *United States v. Oregon* federal court case. The Columbia River between Washington and Oregon is divided into different zones for fishery management purposes. Zone 6 is the stretch of the Columbia River between the Bonneville and McNary Dams. For commercial fishing purposes, Zone 6 is considered an exclusive commercial fishing area for treaty tribes.

Tribal fishers have three main reasons that fishing is a crucial part of their lives. First, ceremonial fishing is done primarily in the spring and is typically managed through a system of permits. None of these fish may be sold. Second, tribal subsistence fishing includes fishing for personal and family use. This could also include barter among federally-recognized tribes. Tribal fishers are allowed to take fish through subsistence fishing the entire year. Third, tribal commercial fishing is done for the purpose of trade with non-Indians. Many tribal fishers depend on fishing for a significant portion of their income. For many fishers, it is their sole source of income. If commercial fishing is not available to these fishers, it is a significant economic loss, particularly for tribal communities with high unemployment rates.

There would be unacceptable impacts from a derailment resulting in an oil spill, fire and/or explosion. An oil spill from a derailment that reached the Columbia River could have impacts on all three aspects of tribal fishing. Since fishing sites are tied to treaty rights, tribal fishers could not just fish at another location. In addition, loss of commercial fishing may not be compensable due to the lack of record keeping maintained by tribal fishers. And the fear of contaminated fish may cause long-term harm to commercial fishing even after fishing operations are able to be resumed in the affected area.

In addition, increased train traffic raises a safety issue in many cases where fishers have to cross the tracks to access their fishing sites. There are fishing sites in remote areas without developed, safe railroad crossings. The in-lieu access sites have normal railroad crossings but the more remote fishing sites often have nothing. Tribal members must cross the tracks at many sites, some without crossing arms or any signals at all. An increase in train traffic traveling in both directions would make this dangerous situation even more dangerous. The FEIS also found that pedestrians cross rail lines as part of their daily activities and are at risk for injury. For example, tribal members cross rail lines to access fishing areas, markets for selling fish, and their homes.

The Council concludes that there would be significant impacts to tribal fishing, many of which cannot be mitigated or compensated.

3. Anticipated Economic Benefits

The Adjudication Order sets forth the economic benefits from the VEDT. For ease of reference, it is included in this section in total.

Jobs. The direct employment impacts in Clark County in Phase I construction are expected to be 239 jobs for the one-year construction period. These impacts are expected to be 81 jobs for the six-month Phase II construction period. Phase I construction will lead to \$23 million in both labor income and economic value added, while Phase II will lead to \$8 million in labor income and economic value.²⁸¹

During the Project's operations, direct labor specific to on-site Project operations is expected to be 91 jobs annually for the start-up period, and 176 jobs annually for each year of the remaining years over the 15 year operational period studied, with total economic activity (salaries, purchased goods and services, and governmental taxes and fees) totaling \$99 million annually.

Revenue. In total, the construction of the VEDT is expected to have a one-time tax impact of more than \$22 million to state and local governments, and a recurring annual impact of approximately \$7.8 million once the VEDT is operating at full capacity. Sales tax increases represent the largest portion of both construction and operations phases, 80 percent of the construction phase and 40 percent of the operations phase. Property taxes are the second-largest tax component, representing 12 percent of construction phase tax increases and 39 percent of operations phase tax increases.

The Port would receive revenues directly from the VEDT, including market value rent from the land lease, dockage for every vessel that loads at the dock, wharfage and service facility fee for every barrel of oil that goes across the dock, rail access fees at \$25 per rail car, and rail maintenance fees for total revenues paid of approximately \$60 million per year, which will be reinvested in the Port infrastructure and into the community.

These economic benefits would need to be offset by any increase in expenditures that would need to be made by the local jurisdictions to serve the new facility.

C. Balance Need against Public Interest

Based on the resolution of all the contested issues, and the findings regarding need and impacts to the broad public interest, the Council next carries out its balancing test in three ways. The Council first balances the need for the VEDT at this location against all the public interest impacts it has identified and concludes that the VEDT at this location will not produce a net benefit that would support a recommendation of approval. The Council then balances the need for the VEDT against the identified public interests but excluding those impacts that Tesoro Savage suggests may implicate federal preemption principles and again concludes that the VEDT at this

²⁸¹ *Value Added* is the total change in the value added to the economy from the new economic activity. In practice, value added reflects new "value" created by the economic activity which goes to labor (in the form of labor income), government (in the form of tax revenues), and shareholders (in the form of "profits" or residual value). Consequently, both labor income and tax revenue, which are reported separately, are components of value added. Ex. 0156-000012-TSS.

location will not produce a net benefit that would support a recommendation of approval. Finally, the Council balances the need for the VEDT at this location against the public interests but excluding both those impacts that may implicate federal preemption principles and those impacts that would be outside of the Council's ability to consider if WAC 463-62 applies to the Council's current analysis and again concludes that the VEDT at this location will not produce a net benefit that supports a recommendation of approval. Finally, the Council looks at whether to exercise its SEPA substantive authority.

1. Balancing Need against All Public Interest Impacts

As set forth above, the VEDT will produce several benefits. It will facilitate the access to mid-continent crude for refiners in California and elsewhere in PADD V that have not constructed its own CBR. The VEDT is expected to directly create jobs in both the construction and operation period. State and local government will receive revenue from taxes. The Port would receive revenues from the VEDT, including rent, dockage, wharfage, service facility fees, rail access fees, and rail maintenance fees.

As provided in detail in Section VII. and summarized in Section VIII B., the VEDT creates or induces the creation of significant and varied impacts on the public interest, including:

- Seismic risks at the VEDT, including structural damage, fire, explosion, release of toxic vapors and oil spill into the Columbia River.
- Oil spills during cargo loading at the VEDT, both during regular operations and in the event of an earthquake.
- Wetlands near the VEDT will be impacted by oil spills at the dock.
- Risks to JWC inmates, workers, and visitors in the event of a spill, fire, or explosion due to barriers to a successful evacuation, lack of emergency response capabilities, and potential health impacts from toxic vapors. Risks to JWC inmates implicate Clark County's constitutional obligation regarding the care and custody of inmates.
- Emergency response difficulties at the VEDT in the event of a spill, fire, or explosion due to inadequacies of staff, resources, equipment, and training, as well as potential limitations regarding the water supply.
- Air quality at the VEDT will be affected by the mobile air pollution sources and GHG emissions, which will result in health impacts to workers, inmates at the JWC, and the Fruit Valley Neighborhood population.
- Environmental justice issues posed by the disproportionate impact from the VEDT, including impacts from toxic air pollutants.
- The VEDT is not consistent with a variety of Vancouver's Comprehensive Plans and Vancouver's long-term vision, including the risk posed by a major seismic event, which conflicts with Comprehensive Plan Policy EN-11 that says "Manage development in geographically hazardous area and floodplains to protect public health and safety."
- Financial assurances for risks at the VEDT is not sufficient. Insurance coverage may be available but Tesoro Savage has not been demonstrated market capacity to insure to an appropriate level, nor will resources be available from Tesoro Savage or its parent companies. This exposes the public to the possibility of having to bear the burden of remediating life, health, safety, property, or environmental harms caused or induced by

the VEDT.

- Risk to port workers, including 300 full and part time ILWU Local 4 members in the event of a spill, fire, or explosion.
- There are numerous rail corridor risks described in detail in this Report, including spills, fires, and explosions that would impact water, wetlands, tribal cultural resources, damages to residence and businesses, emergency response capabilities due to at-grade crossing delays, and increased safety risk to those crossing the tracks from the increased train traffic, to name just a few of the impacts to the public interest along the rail corridor.
- Tribal cultural impacts along the rail corridor, where sacred and unique historical sites could be damaged by an oil spill, fire, explosion, or the subsequent clean-up. These sites are invaluable and beyond monetary compensation.
- Tribal fishing impacts from an oil spill could damage or destroy fishing areas and/or fish that are used for ceremonial purposes, subsistence or commercial purposes. There is also an impact to access of fishing sites due to the increased train traffic, or in the event of an incident.
- Air quality along the rail corridor will include mobile air pollution that may result in health impacts for populations residing in these areas.
- Vessel operations risks include oil spills from the increased risk of a marine incident, which will impact water quality, aquatic life, and wetlands.
- Ballast water management will increase the risk of introduction of invasive species and the impact on fish from the change in water salinity.
- Fish wake stranding will be increased at sensitive locations such as Barlow Point.
- The cumulative risk of an oil spill associated with increased vessel traffic on the River remains uncertain.
- Land use along the corridor will be affected by the increase in rail traffic. In the event of an incident resulting in a spill, Washougal's primary water supply could be contaminated, with no backup water source available. Spokane will be at a higher risk of impact due to the increased train traffic through its area on elevated tracks, and in addition to damage to business structures and home, its sole source aquifer water supply can be contaminated.
- Water quality risks at the VEDT, along the rail corridor, and the vessel corridor resulting from an oil spill would have a devastating and long-term effect on water quality, as well as fish and other aquatic life, and wetlands.
- Impact on wetlands from spilled oil would affect the habitats and plants, which in turn would impact the many species of birds, mammals, reptiles, amphibians, fish, and invertebrates.
- Impacts to fish, especially to salmon, from an oil spill will be long lasting, and can affect commercial and recreational fishing.
- Risks to first responders from toxic fumes would be present in the event of an oil spill, fire, or explosion.
- Access delays along the rail corridor could affect the Fruit Valley Neighborhood and other neighborhoods along the corridor in the event of a train accident or derailment that blocks the tracks.

- Financial Assurances for Impacts along the Rail and Vessel Corridors. As noted above with regard to financial assurances at the VEDT site, Tesoro Savage will have limited assets and its parent companies are unlikely to be liable for losses resulting from VEDT's operations. Insurance coverage of up to \$1 billion to \$1.5 billion may be available but Tesoro Savage has not demonstrated market capacity to insure either a reasonable worst-case damage amount (which Tesoro Savage has not estimated) or a MFL that could be as high as \$6 billion.
- If the Council accepts that the Council may require only financial assurances from Tesoro Savage for VEDT operations, Tesoro Savage has not demonstrated that funds from other sources are available to fund either a reasonable worst-case loss or a MFL along the rail and vessel corridors. This exposes the public to the risk to bear those costs.

In evaluating the need for the VEDT, along with its risks and benefits, the Council is mindful of the following statement in Council Order No. 754 at 13-14, *In re Sumas Energy 2 Generating Facility*:

Each application is unique and falls somewhere on a continuum that may be defined by end points that, at the one extreme, might involve a facility that produces no harmful emissions, is designed and proposed to be located in a fashion to affect the environment minimally; and that provides demonstrable economic benefits both immediately and over the long term. Persuasive evidence of such benefits would militate strongly in favor of site certification even if the facility promised to produce only a moderate amount of energy or was proposed at a time when available energy supply is adequate to meet demand.

At the other extreme, a proposed facility might produce significant harmful emissions, be designed and proposed to be located with little regard to impacts on the land, surface, and groundwater; and promise few economic benefits. Persuasive evidence of such facts would militate strongly against site certification even if the facility promised to satisfy a pressing energy need somewhere on the Western states' and Canadian power grid.

Most proposed facilities, of course, fall somewhere in the middle range between these hypothetical extremes. Thus, EFSEC's need and consistency analysis is a delicate and difficult task in practice, made more difficult yet by the need to consider both objective and subjective criteria in evaluating "the broad interests of the public."

Choosing the appropriate level of risk to life, safety, property, and the environment is the task of public policy makers carrying out their duty to protect the broad interests of the public. As discussed throughout this Order and as summarized above, the VEDT will create a variety of risks to the public interest including the possibility of oil spills that cause fires, explosions, and pollution. The probability of some events may be low but the consequences of low probability events can still be high or even catastrophic. Emergency response resources may be unavailable or ineffective and Tesoro Savage has not demonstrated that sufficient financial resources are available to fully compensate those who have suffered loss or damage. The VEDT will produce

jobs, tax revenues, and payments to the Port, but the need for the VEDT's crude is limited, with some potential benefits to refiners but no material benefits to consumers. Based on the record before it, the Council concludes that the risk posed to life, safety, property, and the environment by the VEDT is just too high. The Council therefore concludes that, on balance, the VEDT's impacts on the broad public interest outweigh the need for the VEDT at this location.

2. Balancing Need against the Impacts to the Public Interest Excluding Impacts that May Implicate Federal Preemption Provisions

In balance the need for the VEDT at this location against the risks it poses to the broad public interest, the Council concludes that the VEDT's impacts to the public interest still outweigh the need for the VEDT at this location even after removing the impacts that Tesoro Savage alleges are subject to federal preemption. These remaining impacts are more than sufficient to justify denial of the project: seismic risks at the VEDT; spills during cargo loading at the VEDT including the associated impacts to water quality, wetlands, and fish; fire risks to the Jail Work Center; emergency response deficiencies for an incident at the VEDT or the Jail Work Center; air quality problems at the VEDT and associated environmental justice issues; inconsistencies with local land use planning documents and community interests; lack of demonstrated financial assurances for incidents at the VEDT; risk to Port workers; impacts to tribal fishing and culture associated with spills from the VEDT; and risks to first responders.

3. Balancing Need against the Impacts to the Public Interest Excluding Impacts that May Implicate Federal Preemption and Impacts that Tesoro Savage Contends are Off-Limits for Council Consideration under WAC 463-62

As discussed above, Tesoro Savage takes the general position that the Council's ability to include certain topics in its balancing analysis is limited by WAC 463-62. Tesoro Savage contends that if it has demonstrated compliance with the standards in WAC 463-62, the Council cannot act without exercising SEPA substantive authority for that topic. The topics covered by WAC 463-62 are seismicity, noise, fish and wildlife, wetlands, water quality, and air quality.

The Council found that Tesoro Savage had met its burden with regard to noise and, since it found no additional impacts justifying further consideration, did not move the noise issue into its current balancing analysis. Tesoro Savage has conceded that the rule did not limit the Council's ability to consider subsets of three other topics discussed in the rule: non-routine oil spills from the VEDT, non-routine wetland impacts from oil spills, and non-routine fish and wildlife impacts from oil spills. Thus, the Council may consider non-routine oil spills from the VEDT, wetland impacts from oil spills, and fish and wildlife impacts from oil spills. The Council found that Tesoro Savage had complied with air permit requirements but that impacts outside the scope of that rule can be considered (impacts from mobile sources and GHG). The Council also found that Tesoro Savage did not meet its burden of demonstrating compliance with the seismicity portion of the State Building Code. Thus, the Council will exclude from its balancing air impacts and GHG and seismic impacts at the VEDT.

The Council therefore applies the balancing test after eliminating consideration of these two matters disputed by Tesoro Savage: air impacts and seismicity impacts. The Council concludes that remaining impacts are still sufficient to justify denial of the project: spills during cargo loading

at the VEDT including the associated impacts to water quality, wetlands, and fish; fire risks to the JWC; emergency response deficiencies for an incident at the VEDT or the JWC; environmental justice issues; inconsistencies with local land use planning documents and community interests; lack of demonstrated financial assurances for incidents at the VEDT; risk to Port workers; impacts to tribal fishing and culture associated with spills from the VEDT; and risks to first responders.

D. Application of SEPA Substantive Authority

The Council has broad authority under chapter 80.50 RCW in evaluating and ultimately finding that the ASC should be denied as, under the balancing test, the VEDT at this location will not produce a net benefit. However, the Council may also exercise its SEPA substantive authority. Given the unique nature of this ASC, and the FEIS findings of significant unavoidable impacts, the Council may and is exercising its SEPA substantive authority in addition to, and not in place of, the outcome of the balancing test for the following three areas.

1. SEPA Substantive Authority for Seismic Impacts

Significant Adverse Impacts. The FEIS found significant unavoidable adverse impacts from an MCE earthquake occurring along the CSZ. Liquefaction of susceptible soils underlying elements at the VEDT could result in significant structural damage to the dock, storage tanks, and transfer pipes. Damage from this failure could result in an oil spill, which could reach the Columbia River. Depending on the volume of oil spilled, there could be significant adverse impacts to water quality, aquatic life, recreational and commercial fishing, and tribal cultural and economic resources. Although the risk may be considered low, the adverse impacts are severe.

Mitigation Measures. The FEIS identifies mitigation measures. The first is to conduct further analyses to finalize the dock design details and proposed pipeline near the shoreline and confirm that the dock structure at the marine terminal is designed to withstand slope failure triggered by an MCE earthquake. In addition, potential deformation of the ground surface along the river embankment during installation of ground improvements should be checked and observed deformations should be monitored. However, the FEIS concluded that, even with these mitigation measures, structural failures could occur and an oil spill could result. It is not possible to fully mitigate the risk of an earthquake and subsequent oil spill, and the adverse impacts will not be lessened.

Conflict with Council's SEPA Policies. The Council's substantive SEPA policies are in WAC 463-47-110. The significant unavoidable adverse impacts of an earthquake and spill are inconsistent with the following substantive SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;²⁸²
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;²⁸³

²⁸² WAC 463-47-110(1)(b)(i)

²⁸³ WAC 463-47-110(1)(b)(iii)

- Preserve important historic, cultural, and natural aspects of our national heritage;²⁸⁴ and
- The council shall ensure that presently unquantified environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations.²⁸⁵

2. SEPA substantive authority for public service impacts due to at-grade crossing delays

Significant Adverse Impacts. The FEIS found significant unavoidable adverse impacts to public services and utilities associated with the normal rail traffic related to the VEDT. Additional trains would increase road traffic delays by 21 minutes per at-grade crossing per day (or by about 14–26 percent at Columbia River Alignment), which could increase emergency response times. Impacts to individuals and communities along rail corridors from delays in emergency response can result in deterioration in expected outcome for ambulance patients, worsening of fire damage from delayed fire response, reduced likelihood for apprehension of suspects from delayed police response, and additional stress for emergency responders and victims.²⁸⁶ Although the risk may be considered low, the adverse impacts are severe.

Mitigation Measures. The FEIS does not identify any mitigation measures that can be implemented by direction of the Council. A few mitigation measures were identified to reduce impacts to public services and utilities that could be implemented or required by other parties.²⁸⁷ These include creating a real time GIS-based tracking program for CBR trains, rerouting high traffic routes, and/or installing grade separated crossings. These measures, however, are not considered effective mitigation because they cannot be implemented by Tesoro Savage or required by the Council. Thus, delays in emergency response are significant and unavoidable.

Conflict with Council’s SEPA Policies. The Council’s substantive SEPA policies are in WAC 463-47-110. The significant and unavoidable adverse delay in emergency response times caused by normal rail traffic associated with the VEDT is inconsistent with the following substantive SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;²⁸⁸
- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings;²⁸⁹ and
- Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life’s amenities;²⁹⁰

²⁸⁴ WAC 463-47-110(1)(b)(iv)

²⁸⁵ WAC 463-47-110(1)(d)

²⁸⁶ FEIS 3-506.

²⁸⁷ FEIS 3-507.

²⁸⁸ WAC 463-47-110(1)(b)(i)

²⁸⁹ WAC 463-47-110(1)(b)(ii)

²⁹⁰ WAC 463-47-110(1)(b)(vi)

3. SEPA Substantive Authority for Oil Spills.

Significant adverse impacts. The FEIS found that the risk of an oil spill from the facility, and from trains and vessels calling at the facility, is a significant unavoidable adverse impact. As outlined above and in Sections 4.7, 4.8, and 4.9, the range of impacts from a spill to the built and natural environment, including water quality, may be severe depending on the size, location, duration, and intensity of the spill. Although the risk of a spill varies by model, there is a measureable risk, and the adverse impacts would be severe.²⁹¹

Mitigation measures. The FEIS identifies mitigation measures to reduce the likelihood of a spill. See Sections 4.7.7, 4.8.7, and 4.9.7. Prevention is the main mitigation measure as prevention is the best form to mitigate the risk. Some or all the mitigation measures are also intended to reduce the extent of the significant adverse impacts. However, the FEIS concluded that even if these mitigation measures were implemented, the risk of a large spill, fire or explosion and the severity of the adverse impacts to human health and the environment if these events occurred, would still be a significant adverse impact. It is not possible to fully mitigate the risk of an oil spill nor eliminate or minimize the adverse impact to an acceptable standard.

Conflict with Council's SEPA policies. The Council's substantive SEPA policies are in WAC 463-47-110. The significant unavoidable adverse risk of an oil spill, fire, or explosion at the facility, or along the vessel or rail corridor, is inconsistent with the following substantive SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;²⁹²
- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings;²⁹³
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;²⁹⁴
- Preserve important historic, cultural, and natural aspects of our national heritage;²⁹⁵
- Maintain, whenever possible, an environment which supports diversity and variety of individual choice;²⁹⁶ and
- The council shall ensure that presently unquantified environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations.²⁹⁷

²⁹¹ For spills from trains, the project will increase the risk of a small spill (250 bbl) from 1 in 34 to 1 in 20. For some larger spills (15,000 bbl), the risk increases from 1 in 120 to 1 in 74. FESI Table 4.8-9. The FEIS also concludes that the project will increase the risk of a spill from vessels operating on the Columbia River to 1 in 41 for a spill of 1,000 bbls or more. FEIS 4-189.

²⁹² WAC 463-47-110(1)(b)(i)

²⁹³ WAC 463-47-110(1)(b)(ii)

²⁹⁴ WAC 463-47-110(1)(b)(iii)

²⁹⁵ WAC 463-47-110(1)(b)(iv)

²⁹⁶ WAC 463-47-110(1)(b)(v)

²⁹⁷ WAC 463-47-110(1)(d)

E. Application of State Energy Policies and the Policies Adopted in WAC 463-47-110

Impacts exceed need when considered only under RCW 80.50, but even more so when considered in light of the SEPA policies adopted in WAC 463-47-110 and Washington's energy policies.

As discussed above, RCW 43.21C.030 requires that state laws, policies, and regulations be interpreted and administered in accordance with SEPA's policies to the fullest extent possible. Those policies are in RCW 43.21C.020, which states:

- Agencies are to use all practicable means to foster the general welfare, create conditions under which human beings and nature can coexist, and fulfill the requirements of present and future generations.
- Consistent with other considerations of state policy, agencies are to take actions including fulfilling the responsibilities of each generation as trustee of the environment for future generations; assuring that Washington citizens have safe and healthful surroundings; using the environment without degradation or risk to health or safety; maintaining an environment which supports diversity and variety of individual choice; achieving a balance between population and resource use to permit high standards of living; and enhancing the quality of renewable resources.
- “[E]ach person has a fundamental and inalienable right to a healthful environment.”

The Council implemented these policies in WAC 463-47-110 in which Section (1)(a) says that “[t]he overriding policy of the council is to avoid or mitigate adverse environmental impacts which may result from the council's decisions.” In light all of these considerations, EFSLA does not require the Council to recommend project approval notwithstanding significant impacts on the public interest that protective measures cannot adequately mitigate.

In addition, while the Council's responsibility is focused on the appropriate siting of energy facilities, it does not operate in a policy vacuum. Previous Council decisions have analyzed projects' consistency with the state's energy strategy, utilities' integrated resource plans, regional power plans, and state policy directives favoring deployment of renewable technology, as part of determining each project's need and benefits. The Council applies the state statutes referenced above that establish state energy policies in developing a state position with respect to the proposed location of the VEDT facility.

Accordingly, these statutes inform the Council that Washington State energy policies include the objectives of reducing dependence on fossil fuels and transitioning to a clean energy economy, with these goals balanced against the need to maintain the availability of energy at competitive prices for consumers and businesses. By its very nature, the VEDT does not promote nor is it consistent with state policy to reduce greenhouse gas emissions.

IX. FINDINGS OF FACT AND CONCLUSIONS OF LAW

The Council includes conclusions of law with its findings of fact for the convenience of the reader. Any finding in the nature of a conclusion of law should be interpreted as a conclusion, and any conclusion in the nature of a finding should be interpreted as a finding of fact.

The Council, by its reference herein, adopts the Findings of Fact and Conclusions of Law set forth in the Order, and includes the findings of fact and conclusions of law in this Report as if set out in full. In addition, the Council finds and concludes as follows:

Nature of the Proceeding

1. This proceeding involves Application 2013-01 before the Washington State Energy Facility Site Evaluation Council (Council) for approval to construct and operate the Vancouver Energy Distribution Terminal (VEDT) at the Port of Vancouver USA, in the City of Vancouver, Washington. The VEDT will be designed to receive Bakken and diluted bitumen (crude oil) from throughout North America, with the current expectation that most of the crude oil will come from mid-continent sources in America (with a focus on North Dakota) and Canada.

Tesoro Savage and the ASC

2. Tesoro Savage, LLC is a limited liability company qualified to do business in the state of Washington. Its members are Savage Companies and Tesoro Refining & Marketing Company, LLC. Tesoro Savage was established for the sole purpose of building, owning, and operating the VEDT.
3. Tesoro Savage filed the ASC of the VEDT with the Council on August 29, 2013, an amended ASC on February 25, 2014; a Supplemental ASC including revised air permit language in August 2014; subsequent amended ASC on May 27, 2016; and an amended ASC on October 6, 2016.

Informational Public Hearing

4. The Council conducted the public informational meeting October 28, 2013, at Clark College, Gaiser Student Center, Vancouver, Washington.
5. *The Council concludes* that it has complied with the applicable procedural law and regulation, including RCW 80.50.090(1), in conducting an informational public hearing in the county of the proposed site no later than 60 days after receipt of the application for site certification.

Land Use Consistency Hearing

6. On May 9, 2014, the Council issued a Notice of Land Use Consistency Hearing and conducted the required public hearing in Vancouver, Washington, at 6:00 p.m. on May 28, 2014.

7. The Council received requests to postpone or cancel the land use consistency hearing from Vancouver, Friends of the Columbia Gorge, Columbia Riverkeeper, Columbia Waterfront, and form letters and emails from members of these organizations or the public. The requests to cancel or postpone the hearing were denied in letters from the Council Manager and in the portion of Order 872 that addressed preliminary issues
8. The Council conducted a Land Use Consistency Hearing under RCW 80.50.090, WAC 463-26-050 on May 28, 2014, in Vancouver, Washington.
9. The Council heard public comments and accepted written comments. Testimony and presentations were limited to the question of whether the VEDT is consistent and in compliance with Vancouver's Comprehensive Plan and the Vancouver Municipal Code, particularly the zoning code, Title 20.
10. The Comprehensive Plan specifically allows the proposed use in the area where the VEDT is located, designates that area as "Industrial," and allows within it the "IH Heavy Industrial" subtype, which is generally intended for "[i]ntensive industrial manufacturing, service, production or storage often involving heavy truck, rail, or marine traffic, or outdoor storage and generating vibration, noise and odors."
11. The pertinent ordinances zone the location where the VEDT is proposed as "IH-Heavy Industrial," which is designated as appropriate for intensive industrial uses such as warehousing, freight movement, and railroad yard.
12. *The Council concludes* that a narrow reading of the land use consistency process was warranted; an EIS need not precede the City's consideration of land use consistency; the Council may make the final decision on land use consistency before the FEIS is issued; the public had sufficient time to prepare comments; the VMC Type II process does not apply to the Council's land use consistency decision; Vancouver had sufficient time to prepare comments; and the Council's hearing was not defective.
13. *The Council concludes* that Tesoro Savage met its burden of proof demonstrating that the VEDT is consistent and in compliance with the applicable land use provisions because the provisions do not clearly, convincingly, and unequivocally prohibit the VEDT.

Compliance with the State Environmental Policy Act (SEPA)

14. The Council is the lead agency for environmental review of project proposals within its jurisdiction under the terms of SEPA, RCW 43.21C. The Council Manager is the SEPA responsible official. WAC 463-47-051.
15. On October 1, 2013, the Council issued a Determination of Significance Scoping Notice and Notice of Public Scoping Meeting, to be conducted in Vancouver, Washington, on October 29, 2013, from 6:00 to 9:00 p.m. On November 8, 2013, the Council issued a Notice of Additional Public Scoping Comment Meeting, to be conducted in Spokane Valley, Washington, on December 11, 2013, from 6:00 to 9:00 p.m.
16. A DEIS was circulated for public review in November 2015. The Council conducted three public hearings, and oral and written comments were accepted. In addition, written comments were accepted beginning November 24, 2015, until January 22, 2016. More than 250,000 comments were received about the DEIS.

17. The Council staff relied upon some of the analysis in the DEIS to develop the FEIS. However, some of the information in the DEIS was updated in the FEIS. Revisions were made to update or clarify details of the VEDT, respond to public and agency comments, provide additional information related to the analysis of impacts, provide the information from additional technical analyses that were conducted for several environmental resources/concerns, and present additional mitigation measures.
18. The Council's SEPA responsible official, the Council Manager, issued the FEIS on November 21, 2017.
19. *The Council concludes* that it has complied with SEPA and its implementing regulations, including chapter RCW 80.50 RCW and chapter 463-47 WAC.

The Adjudicative Proceeding

20. On January 28, 2015, the Council issued an Order Commencing Agency Adjudication and Setting Intervention Petition Deadline. Sessions were convened prior to the hearing to consider procedural matters and other motions.
21. The Council convened an adjudicative evidentiary hearing that consisted of 21 days of testimony. The hearing convened June 27, 2016, through June 30, 2016, at Vancouver, Washington. Pursuant to notice to the parties, the Council visited and viewed the VEDT site June 27, 2016. The hearing reconvened on July 5, 2016, through July 22, 2016, at Olympia, Washington. The hearing concluded after sessions reconvened on July 25, 2016, through July 29, 2016, at Vancouver, Washington.
22. The afternoon of July 29, 2016, the Council conducted a session for public comment, which was made a part of the adjudicative record.
23. On November 28, 2017, the Council voted unanimously that the evidence and argument in the adjudication record support rejection of this ASC, and directed staff to complete the Order consistent with the vote.
24. *The Council concludes* that the adjudication process and Order comply with RCW 80.50.090(3) and applicable provisions of chapter 34.05 RCW, the APA and chapter 463-30 WAC.

SEPA Substantive Authority for Seismic Impacts

25. The FEIS found significant unavoidable adverse impacts from an MCE earthquake occurring along the CSZ. Significant structural damage to the dock, storage tanks, and transfer pipes could result from liquefaction, which could result in an oil spill that reaches the Columbia River. There could be significant unavoidable adverse impacts to water quality, aquatic life, recreational and commercial fishing, and tribal cultural and economic resources. Although the risk may be considered low, the adverse impacts are severe.
26. The FEIS identifies mitigation measures. However, even with these mitigation measures, structural failures could occur and an oil spill could result. It is not possible to fully mitigate the risk of an earthquake and subsequent oil spill, and the adverse impacts will not be lessened.
27. The significant unavoidable adverse impacts of an earthquake and spill are inconsistent with the four substantive SEPA policies.

28. *The Council concludes* that it can apply its SEPA substantive authority and recommend rejection of the ASC based on the significant unavoidable adverse impacts from a seismic event.

SEPA Substantive Authority for Public Service Impacts due to At-Grade Crossing Delays

29. The FEIS found significant unavoidable adverse impacts to public services and utilities associated with the normal rail traffic related to the VEDT. Additional trains would increase road traffic delays by 21 minutes per at-grade crossing per day (or by about 14–26 percent at Columbia River Alignment), which could increase emergency response times. Impacts to individuals and communities along rail corridors from delays in emergency response can result in deterioration in expected outcome for ambulance patients, worsening of fire damage from delayed fire response, reduced likelihood for apprehension of suspects from delayed police response, and additional stress for emergency responders and victims. Although the risk may be considered low, the adverse impacts are severe.
30. The FEIS does not identify any mitigation measures that can be implemented by direction of the Council. Other identified mitigation measures are not considered effective mitigation because they cannot be implemented by Tesoro Savage or required by the Council. Thus, delays in emergency response are significant and unavoidable.
31. The significant and unavoidable adverse delay in emergency response times caused by normal rail traffic associated with the VEDT is inconsistent with three substantive SEPA policies.
32. *The Council concludes* that it can apply its SEPA substantive authority and recommends rejection of the ASC based on the significant unavoidable adverse impacts to public services and utilities associated with the normal rail traffic related to the VEDT.

SEPA Substantive Authority for Oil Spills

33. The FEIS found that the risk of an oil spill from the VEDT, and from trains and vessels calling at the facility, is a significant unavoidable adverse impact. As outlined above and in Sections 4.7, 4.8, and 4.9, the range of impacts from a spill to the built and natural environment, including water quality, may be severe depending on the size, location, duration, and intensity of the spill. Although the risk of a spill varies by model, there is a measurable risk, and the adverse impacts would be severe.
34. The FEIS identifies mitigation measures to reduce the likelihood of a spill. However, the FEIS concluded that even if these mitigation measures were implemented, the risk of a large spill, fire or explosion and the severity of the adverse impacts to human health and the environment if these events occurred, would still be a significant adverse impact. It is not possible to fully mitigate the risk of an oil spill, nor eliminate or minimize the adverse impact to an acceptable standard.
35. The significant unavoidable adverse risk of an oil spill, fire, or explosion at the VEDT, or along the vessel or rail corridor, is inconsistent with six substantive SEPA policies.

36. *The Council concludes* that it can apply its SEPA substantive authority and recommends rejection of the ASC based on the significant unavoidable adverse impacts from the risk of an oil spill from the facility, and from trains and vessels calling at the VEDT.

Balance Need against Public Interest

37. Choosing the appropriate level of risk to life, safety, property, and the environment is the task of public policy makers carrying out their duty to protect the broad interests of the public.
38. As discussed in this Report and summarized above, the VEDT will create a variety of risks to the public interest including the possibility of oil spills that cause fires, explosions, and pollution. The probability of some events may be low but the consequences of low probability events can still be high or even catastrophic. Emergency response resources may be unavailable or ineffective and Tesoro Savage has not demonstrated that sufficient financial resources are available to fully compensate those who have suffered loss or damage. The VEDT will produce jobs, tax revenues, and payments to the Port, but the need for the VEDT's crude is limited, with some potential benefits to refiners but no material benefits to consumers.
39. *The Council concludes* that the risk posed to life, safety, property, and the environment by the VEDT is too high.
40. *The Council further concludes* that, on balance, the VEDT's impacts on the broad public interest outweigh the need for the VEDT at this location.
41. When you remove the impacts that Tesoro Savage alleges are subject to federal preemption, the remaining impacts are: seismic risks at the VEDT; spills during cargo loading at the VEDT including the associated impacts to water quality, wetlands, and fish; fire risks to the JWC; emergency response deficiencies for an incident at the VEDT or the JWC; air quality problems at the VEDT and associated environmental justice issues; inconsistencies with local land use planning documents and community interests; lack of demonstrated financial assurances for incidents at the VEDT; risks to Port workers; impacts to tribal fishing and culture associated with spills from the VEDT; and risks to first responders.
42. *The Council concludes* that in balancing the need for the VEDT at this location against the risks it poses to the public interest, the VEDT's impacts still outweigh the need for the VEDT at this location, even after removing impacts that Tesoro Savage allege are subject to federal preemption.
43. Tesoro Savage takes the general position that the Council's ability to include certain topics in its balancing analysis is limited by WAC 463-62 and if it has demonstrated compliance with the standards in WAC 463-62, the Council cannot act without exercising SEPA substantive authority on that topic.
44. Tesoro Savage met its burden with regard to noise. Tesoro Savage has conceded that the rule did not limit the Council's ability to consider subsets of three other topics discussed in the rule: non-routine oil spills from the VEDT, non-routine wetland impacts from oil spills, and non-routine fish and wildlife impacts from oil spills. Thus, the Council may consider non-routine oil spills from the VEDT, wetland impacts from oil spills, and fish and wildlife impacts from oil spills. The Council found that Tesoro

Savage had complied with air permit requirements but that impacts outside the scope of that rule can be considered (impacts from mobile sources and GHG). The Council also found that Tesoro Savage did not meet its burden of demonstrating compliance with the seismicity portion of the State Building Code. Thus, the Council will exclude from its balancing test air impacts and GHG and seismic impacts at the VEDT.

45. The balancing test, after eliminating consideration of the matters disputed by Tesoro Savage, include: spills during cargo loading at the VEDT including the associated impacts to water quality, wetlands, and fish; fire risks to the JWC; emergency response deficiencies for an incident at the VEDT or the JWC; environmental justice issues; inconsistencies with local land use planning documents and community interests; lack of demonstrated financial assurances for incidents at the VEDT; risks to Port workers; impacts to tribal fishing and culture associated with spills from the VEDT; and risks to first responders.
46. *The Council concludes* that in balancing the need for the VEDT at this location against the remaining risks to the broad public interests, after eliminating consideration of the matters disputed by Tesoro Savage, the impacts to the public interest still outweigh the need for the VEDT at this location, and are therefore still sufficient to justify rejection of the project.

X. RECOMMENDATION

Considering the entire adjudicative record, the FEIS, and all other findings from this ASC process, the Council finds and concludes that the ASC should be forwarded to the Governor with a recommendation to reject the application.

Signatures:

Dated and effective at Olympia, Washington, this 19th day of December, 2017.

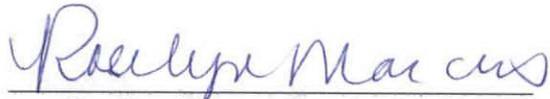
(Signature page attached.)

Notice to Parties about Procedures for Administrative Relief: Administrative relief is available through petitions for reconsideration, filed within 20 calendar days of the service of the Report to the Governor on Application 2013-01. If no petitions for reconsideration are filed within 20 calendar days of service, this Report will become final on the 21st calendar day after service, without further action of the Council. If one or more petitions for reconsideration are timely filed, the deadline for answers is 14 calendar days after the date of service of each such petition. Each party shall be entitled to file one petition for reconsideration, so any petition should address the entire Report and Recommendation package; parties should not file multiple individual petitions for reconsideration addressing individual elements of the package. The formatting of the petitions and answers shall be governed by WAC 463-30-120. Petitions and answers shall each be limited to 50 pages.

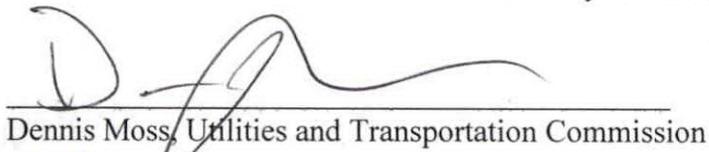
The Council will consider any petitions and answers. The Council will respond to arguments in the petitions and answers and will provide those responses to the Governor for his deliberations. The Council reserves the right to modify this Report or other components of the

Recommendation package in response to the petitions and answers and will file any modified documents with the Governor and serve the parties.

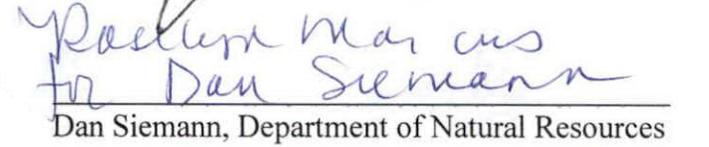
Dated and effective at Olympia, Washington, this 19th day of December 2017.



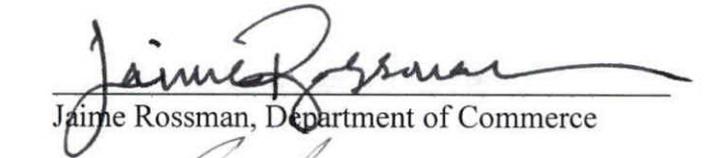
Roselyn Marcus, Interim Chair



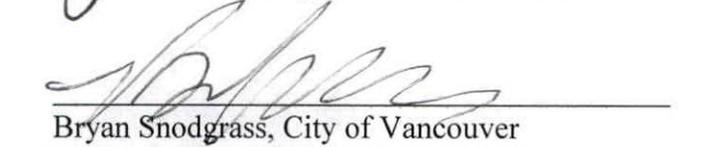
Dennis Moss, Utilities and Transportation Commission



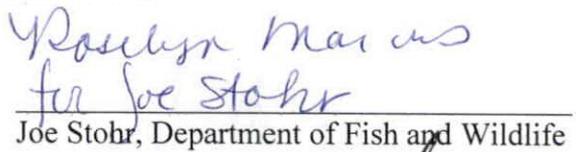
Dan Siemann, Department of Natural Resources



Jaime Rossman, Department of Commerce



Bryan Snodgrass, City of Vancouver



Joe Stohr, Department of Fish and Wildlife



Cullen Stephenson, Department of Ecology



Ken Stone, Department of Transportation



Greg Shafer, Clark County