December 18, 2013

Energy Facility Site Evaluation Council
ATTN: Stephen Posner, EFSEC Interim Manager
1300 S Evergreen Park Dr. SW
PO Box 43172
Olympia, WA 98504-3172

SUBJECT: Tesoro Savage Vancouver Energy Distribution Terminal Project,
Application No. 2013-01, Docket No. EF-131590

Dear Mr. Posner:

Please accept these comments from the Washington State Department of Natural Resources (DNR) regarding the scope of the Environmental Impact Statement (EIS) for the proposed Tesoro Savage Vancouver Energy Distribution Terminal project in Vancouver, Washington. DNR is the manager of over 3 million acres of state trust lands comprised of forest, range, commercial, and agricultural lands, and 2.6 million acres of state-owned aquatic lands. In addition, DNR administers the state Forest Practices Rules on more than 12.7 million acres of non-federal, public, and private lands.

DNR is committed to sustainably managing the state's resources, relying on sound science, and making transparent decisions in the public's interest and with the public's knowledge throughout the environmental review process.

DNR is regarded as possessing special expertise under Washington state's environmental policy act rules, Washington Administrative Code (WAC) Chapter 197-11-920, related to the following areas: water resources and water quality of state-owned aquatic tidelands, shorelands, harbor areas, and beds of navigable waters; natural resources development; energy production, transmission, and consumption (geothermal, coal, and uranium); land use and management of state-owned or managed lands; recreation; and burning in forests.

The proposed project includes the expansion of capacity of an existing bulk oil terminal. The upland is owned by the Port of Vancouver (Port). The actual footprint of the marine terminal is within a limited area managed by the Port for the State of Washington under a specific delegation of authority. The Port has authority to authorize infrastructure development and operational management in the area. The State retains underlying fee ownership of the state-owed aquatic lands. DNR has direct control of most bedlands and state-owned tidelands and

shorelands along the Columbia River corridor. As such, DNR is the abutting land owner for much of the downstream reach.

DNR appreciates the opportunity to submit comments on the scope of the EIS, which are provided in the attachment to this letter. The attachment identifies project alternatives to the proposal that should be considered in the EIS. The comments that follow identify analyses for each element of the environment identified under WAC Chapter197-11-444 where DNR has identified probable, significant adverse impacts needing analysis in the EIS. For each issue of concern identified in this letter, DNR requests that the EIS identify the potentially affected resources; analyze the probable impacts to those resources; and identify measures to avoid, minimize, and mitigate effects of the proposal. DNR may submit additional scoping comments as we increase our understanding of the proposal and its impacts.

Should you have any questions regarding this letter, please do not hesitate to contact me, at (360) 902-1034.

Sincerely,

Megan Duffy
Deputy Supervisor for Aquatic Resources and Geology
Department of Natural Resources

Attachments: (12)
DNR comments on EFSEC SEPA scoping for Tesoro Savage project, Vancouver.

Attachment

WDNR Comments to EFSEC SEPA Scoping

Tesoro Savage Oil Terminal Expansion in Vancouver, Washington

Organization of comments

The following comments identify local, regional and statewide impacts which may result from the proposed project. The specific emphasis is on impacts to State resources managed by DNR. We have identified: 1) project alternatives to the proposal that should be considered in the EIS, 2) probable project impacts in the immediate vicinity of the project area, 3) within the lower Columbia region, and 4) to state-managed lands statewide. Impacts are further organized into the Natural and Built environment categories according to the elements of the environment identified in Chapter 197-11-444, WAC. For each identified issue of concern, DNR requests that the EIS identify the potentially affected resources, analyze the probable impacts to those resources, and identify measures to avoid, minimize, and mitigate effects of the proposal. DNR may submit additional scoping comments as we increase our understanding of the proposal and its impacts.

PROJECT ALTERNATIVES

Project Location

The EFSEC process was developed to centralize the evaluation and oversight of large energy facilities in a single location within state government. In evaluating large energy projects, EFSEC must balance the demand for new energy facilities with the broad interests of the public. As part this balancing process, protection of environmental quality, safety of energy facilities, and siting must be taken into account. Thus, EFSEC review of this project should include a comprehensive analysis of alternative locations throughout the Columbia River corridor that substantially meet the project objective.

Design Analysis

The project proposes to expand an existing facility and increase existing operations. The increased scale of the proposal warrants the same consideration as a new facility. The design analysis should address possible configurations which will be required to accommodate maximum projected volumes. Equipment design should include options available to reduce operational risks. Basic design parameters should include scenarios of high water and catastrophic events.

Overwater structure modifications should identify options that avoid and minimize impacts to the aquatic environment. Increased operations should be examined with regard to dredging requirements, including the use of smaller, shallower-draft vessels. Future structural requirements which might be required to achieve full capacity should be identified and impacts quantified.

Operational factors including vessel size, frequency and loading speeds should be considered within maximum design parameters and extreme conditions. Impacts of perceivable advances in technology should be integrated with vessel traffic predictions.

Vessel Traffic

The project would generate an additional 600 one-way vessel trips annually on the lower Columbia River. A detailed vessel traffic analysis should be conducted using a robust model that relies on the most recent vessel tracking data for the Columbia River system. The analysis should include both existing levels and any projected increases in vessel traffic from this proposal and other sources throughout the Columbia River system, The EIS should evaluate multiple alternatives for reducing potential conflicts, including routes, operations, and traffic control.

Vessel Operations

The EIS should analyze alternative berthing times and seasonal restrictions to ensure that cargo vessel and tug operations do not adversely affect the spawning and migration behavior of salmon, eulachon, sturgeon, and other species that utilize the proposed project area.

Rail Corridor Expansion

The EIS should identify any necessary expansion of rail corridors or infrastructure that may be utilized by the proposed project and possible alternative rail routes or pipeline options. If any necessary expansions of rail corridors or infrastructure are identified, alternatives should be identified that avoid and minimize impacts to aquatic habitat and water quality.

IMPACTS IN THE IMMEDIATE PROJECT VICINITY

Natural Environment:

Earth

Sediment and Geomorphic Processes
The EIS should include a detailed analysis of the potential alteration of physical and geomorphological processes in the nearshore zone, focused on sediment transport and riverine processes, particularly with respect to initial and ongoing dredging requirements.

Waves and Prop Scour
The EIS should analyze adverse impacts of waves and prop scour generated by large vessels docking at the facility and tugs assisting with docking on sediment transport, bank erosion, and attached aquatic vegetation. How will the change in operations affect scour in the shoreline and bedlands environments in the aquatic lease area, and also downstream of the site? How will

waves, currents, and propeller wash change the sediment characteristics and hydrodynamic environment? How will riverine vegetation and habitat for freshwater invertebrates be affected by changes in wave energy, sediment transport, or substrate? What is the likelihood that the project will require shoreline modification or armoring in the future, due to operations, climate change, sea level rise, or other reasons, and how will impacts be mitigated?

The EIS should analyze the potential of construction or operations (including future maintenance, repair, and replacement) to disturb any contaminated sediments and how this will be mitigated.

Geologic Hazards

DNR has responsibility for obtaining, maintaining and distributing information and technical assistance regarding geologic hazards under the Geological Survey Act, Chapter 43.92, Revised Code of Washington (RCW). In addition to the objectives stated in Chapter 43.92.020 RCW, the geological survey must conduct and maintain an assessment of seismic, landslide, and tsunami hazards in Washington. This assessment must include the identification and mapping of volcanic, seismic, landslide, and tsunami hazards, an estimation of potential consequences, and the likelihood of occurrence. DNR recommends the EIS analyze the potential for geologic hazards at the site using the following methodology:

a) Identify both shallow and deep-seated landslide hazards using DNR's GIS Statewide Landslide database and then create a site-specific geologic map. In areas with no existing landslide inventory, create a shallow landslide database using historic aerial imagery and other spatial data in a GIS.
b) Evaluate riverbank sloughing and subaqueous landslide hazards using bathymetry or similar DEM data.
c) Identify potentially unstable slopes using DNR's Shalstab model or other comparable slope stability modeling program in a GIS.
d) Identify slope hazards associated with slope modification or vegetation removal at construction areas.
e) Evaluate earthquake hazards including earthquake-induced ground failures.
f) If dredging for port access, identify potential hazards to adjacent beaches and bluffs from loss of subaqueous buttressing, and
g) Identify tsunami inundation hazards from both local faults and a Cascadia subduction zone event, or through subaqueous or terrestrial landslides. Explicitly address increased risk of inundation resulting from climate change and sea level rise.

<u>Flooding and Volcanic Events</u>

A complete analysis of any major industrial facility in the Columbia River watershed should include the potential impacts from natural events, including extreme localized rainfall events, periodic systemic high water events, and seismic and volcanic cataclysms. Engineering assumptions, building codes, oil facility-specific federal codes and permitting regimes, do not fully address the extent of natural events which have occurred in this specific area and within recorded history. While extensive flood control infrastructure has reduced the potential for flooding in the Columbia system, this area is relatively low and has historically flooded. Facility design and impacts should quantify likely impacts of extreme events which might overwhelm

storm water infrastructure or threaten on-site infrastructure.

Plants and Animals

Baseline Study
The EIS should include a detailed baseline study of the area's biological resources and analyze potential impacts, including, but not limited to: benthic habitats; shellfish resources (such as native freshwater mussels); littoral vegetation; migration and spawning corridors and behavior for multiple species (such as eulachon, green and white sturgeon, Pacific lamprey, and eight salmonid species); marine mammals (such as Stellar and California sea lions); waterfowl and migratory shorebird communities including nesting, rearing, resting, and feeding habitats along the river banks and islands, as well as and upland species, including endangered or threatened species.

The project proponent should coordinate with DNR and WDFW regarding appropriate mapping methods for uplands vegetation, littoral vegetation, shellfish resources, eulachon spawning areas, and benthic and epibenthic invertebrate abundance and distribution. WDFW studies have a documented eulachon spawning downstream from the proposed terminal in the Cowlitz and Kalama rivers.

Potential impacts to waterfowl, shorebirds, the Columbian white-tailed deer, and other wildlife species should be examined. Lifecycle impacts should be addressed for migratory salmon, Pacific lamprey, and eulachon, as documented and monitored by WDFW and the Cowlitz Indian Tribe. Pacific lamprey play a key ecological role in the food web and are considered an indicator species for anthropogenic impacts to aquatic systems. They also have significant cultural and subsistence value for many Native American tribes in the Pacific Northwest. Because their lifestages include a filter-feeding larval stage that drifts downstream and burrows, they are particularly vulnerable to exposure to contaminants, dredging, channel maintenance, and construction impacts. The EIS should identify and synthesize all available information about these species.

Shading
The EIS should analyze the amount of shading at each depth that will be generated by the overwater structure and moorage of vessels, including tugs and vessels that may perform maintenance during operations. What are the potential adverse impacts of shading on riverine resources, including, but not limited to: littoral vegetation (including productivity), benthic habitats, eulachon migration and spawning behavior, and migratory movement of juvenile and adult salmon, green and white sturgeon, and Pacific lamprey, and how will they be avoided? How will shading be monitored over time to detect adverse impacts on riverine vegetation (including rushes, sedges, and other littoral species*)* or fish species?

Construction
The EIS should analyze adverse impacts during construction. The proposed project site includes areas of soil contamination in excess of state and federal cleanup levels which are designed to be contained by shoreline armoring and isolation from groundwater. Continued efficacy of this containment has to be more extensively considered in the development of the proposed facility.

Accidental breaches due to design errors, construction mistakes or disruption due to a major fire or explosion need to be both quantified and addressed in operational controls during the upland construction.

Direct aquatic impacts from future maintenance, repair, and replacement should be fully considered. Alternatives in construction, design, and materials should be identified which reduce impacts to biological, chemical, and physical habitats. Specific consideration should be made to threatened and endangered species including eulachon, salmon, green and white sturgeon, pacific lamprey, marine mammals, marbled murrelet, and migratory shorebirds and waterfowl. Impacts to habitat that support these species, including sediment transport, benthic habitats, and riverine vegetation, should be identified along with mitigation measures.

Operational Noise
The EIS should analyze the amount of noise that will likely be generated during operation at full capacity. Both periodic and cumulative impacts of noise generated from this project on eulachon migratory and spawning behavior, salmon, and other aquatic species during operation of the proposed terminal should be examined. How will any changes in noise be monitored over time to assure there are no adverse impacts to eulachon and other aquatic species?

Artificial Lighting
The EIS should analyze impacts of lighting proposed on the overwater structure and within 200 feet of the shoreline on eulachon, salmon, Pacific lamprey, and other aquatic species. A study should be conducted to investigate the potential changes in species abundance and dominance resulting from increased prey access under artificial lighting and address ways to reduce or eliminate any identified impacts.

Aquatic Vegetation
The EIS should analyze any potential for dock construction, operations, and future maintenance, repair, and replacement to scour sediments or disrupt or harm riverine vegetation or other benthic habitats. How will impacts to riverine vegetation damaged during construction or operations through displacement, shading, burial, or scour be avoided?

Biological Resources
The EIS should analyze how vessels, including barges, propose to navigate or dock at the proposed facility, and how adverse impacts of the proposed alignment and vessel operations on eulachon, salmon, marine mammals, riverine vegetation, and other biological resources and species will be mitigated.

<u>Air</u>

Air discharged from vessel holds during loading requires treatment. Contingencies for equipment failure and potential expansion of air treatment facilities should be examined, including providing cold iron connections. Vessels' impacts to localized air pollution or emission of greenhouse gases and entering surface waters through atmospheric deposition need to be better examined.

<u>Water</u>

Hydrological Dynamics
The EIS should evaluate existing nearshore hydrological dynamics in the area due to structures, operations or changes to freshwater inflows. What is the potential of the in-water operations to impact existing shoreline armoring and downstream shorelines?

Point and Nonpoint Discharges
The EIS should analyze whether any stormwater, treated or untreated, point or nonpoint, or any other pollution sources, may enter the Columbia River as a result of the project. The proposed storm water management regime does not adequately account for cumulative impacts from predictable events. In the context of extensively expanded impervious surface and multiple pathways for incremental releases, the capacity and capability of the storm water management regime needs to be extensively examined. Current permitting does not require monitoring at the outfalls to an extent adequate to confirm efficacy of the system. The EIS needs to identify a monitoring regime adequate to confirm design assumptions.

The EIS should include a characterization of the source, quality and quantity, and potential impacts of all stormwater runoff generated by the entire project that may enter state waters, whether treated or untreated.

Spills
The EIS should analyze the increased risk of oil spills that may occur during transfer to vessels, or through vessel collisions that may result due to the increase in vessel traffic through the lower Columbia River. What measures will be taken to ensure prevention and timely response to oil spills to avoid water quality and habitat impacts? The state's oil spill program is funded through a crude oil tax on vessels; that does not include rail.

Cumulative Impacts
Stormwater and wastewater discharges can carry heavy metals and other pollutants that may be harmful to fish and wildlife. What is the individual impact, and what are the cumulative impacts of stormwater, other pollutants, and any other wastewater discharges generated by the project, when considering all other stormwater and wastewater discharges in the lower Columbia River system? The EIS should include an ambient water toxicity study, using protocols accepted by Ecology and EPA to evaluate the cumulative effects of existing industrial wastewater and stormwater outfalls and groundwater seeps on riverine species survival and water quality.

Biologic monitoring design should include studies of bioaccumulation of polycyclic hydrocarbons (PAH), pentacholorophenol (PCP), and heavy metals in caged mussels. Future PAH, PCB, and heavy metal concentrations should be modeled based on the various alternatives being considered.

Vessel Fueling and Pumpouts
The EIS should analyze where fueling of vessels will occur. What are the adverse impacts of any fueling activities? If the need for such a facility is identified in the future, how will potential adverse impacts of spillage be avoided and mitigated? The EIS should analyze where vessels will pump out sewage and handle gray water.

Ballast Water
The EIS should discuss ballast water management and examine impacts from potential

discharges into the riverine environment. Management of ballast water should be consistent with Washington State Ballast Water Management Act and interstate agreements on Columbia River ballast water management.

Invasive Species
The EIS should analyze the potential for the project to introduce invasive species to the project site and to the lower Columbia River system and how the potential adverse impacts will be mitigated to prevent introduction. If an invasive species is found to occur on a vessel associated with the project, what actions will be implemented to prevent spread of the species into riverine waters?

Built Environment

Environmental Health

Toxic Chemicals
The EIS should analyze the need for safeguards to prevent potential release of toxic chemicals associated with construction and future maintenance of both upland and aquatic facilities. Worst case scenarios involving flooding and fire should be quantified and discussed.

Land and Shoreline Use

Sea Level Rise
The EIS should analyze how many pilings will be installed and the construction methods, design, and materials to be used. How will the structure be designed to function at current and forecast sea levels based on most recent predictions from the "Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future" (June 2012).

Transportation

Marine Vessels
The EIS should include a detailed vessel traffic analysis and assessment of traffic management needs. The analysis should provide information on vessel drift, ballast water management, frequency of entry, egress, and moorage time anticipated for the different types of vessels and sizes of vessels, and their potential impact on the Columbia River environment (including aquatic natural resources). It should be based on a robust model that relies on the most recent United States Coast Guard vessel tracking system data for the Columbia River system, including existing or projected traffic from adjacent industrial facilities, upstream shipping terminals, and nonindustrial vessels. The scope of the study should include all of the Columbia River system, and not just the site of the proposed terminal. The study should evaluate multiple alternatives for reducing potential incidents.

The EIS should analyze the impacts of the increased vessel traffic, size of the vessels, and proposed vessel routes on fish and wildlife species and their habitats. The impacts of projected vessel traffic generated by the project on the spawning and migration behavior of eulachon, salmonid, sturgeon, and other species should be analyzed. How will vessel operations be conducted during eulachon pre-spawning and spawning season to prevent impacts to eulachon? What are the cumulative impacts of projected vessel traffic generated by the project, and projected traffic for the region, eulachon, salmonid, sturgeon, and other species? What are the

impacts to these species due to the increase in noise expected to occur from increased vessel traffic approaching and leaving the facility?

The EIS should analyze the potential for the project's proposed vessel operations to adversely impact or interfere with adjacent industrial operations, including facility access. If a vessel can't access one of the facilities and has to moor temporarily, how might this affect other industrial operations and vessels transiting through the lower Columbia, or the risk of collision?

The greatly increased ship activity has the potential to impact sediment quality. Diesel burning by the ships can create greenhouse gases, PAHs and dioxins, which can contribute to localized ocean acidification as well as contaminate the sediments in the area through atmospheric deposition, especially if diesel fuel is burned while the container ships are idling while at the terminal. The EIS should analyze the cumulative impacts of engine exhaust from the cargo vessels and tugs and upland machinery operations, and the potential for pollutants to the Columbia River from atmospheric deposition, or from vessel machinery, or loading operations.

Historical and Cultural Preservation

The EIS should analyze impacts of construction and operations (including future maintenance, repair, and replacement) on cultural resources and tribal use. This analysis should be completed for the aquatic lands as well as any upland areas affected by the project.

IMPACTS TO STATE-MANAGED LANDS IN THE LOWER COLUMBIA REGION

Natural Environment

Air

The EIS should analyze the adverse impacts of engine exhaust from the cargo vessels and tugs and its potential to enter the Columbia River, including sediment quality, water quality, and localized acidification. It should also include analysis of the additional carbon dioxide generated by the burning of fossil fuels by additional trains traveling over state-managed lands and identify measures to reduce the project's carbon footprint.

Water

The EIS should evaluate the ways in which hydrocarbons may escape the rail cars and enter the Columbia River, including wind, stormwater, and spills.

Plants and Animals

The EIS should analyze how the increase in traffic of large vessels may affect fish and wildlife, including their migration, rearing, foraging, and spawning habitat.

The existing rail system is located adjacent to the shoreline along long stretches of the Columbia River. The EIS should analyze whether rail corridors may need to expand onto state-owned aquatic lands and state uplands in other areas to accommodate the project. How many stream crossings will require modification and what are the potential impacts from increased operations at stream crossings?

Built Environment

Environmental Health

The EIS should analyze the increased risk of oil and fuel spills that may occur due to the increase in vessel traffic through the lower Columbia River.

The EIS should analyze the potential impacts of increasing the number of tracks on aquatic and upland habitats managed by the state along the existing rail corridor, or any alternative corridors that may be needed. Analysis should include, but not be limited to, impacts on: habitat, cultural resources, water quality, and wetlands. The EIS should analyze the impacts to ground and surface water, soil and adjacent wetlands from any necessary expansion, and evaluate mitigation measures that reduce and prevent the potential for short and long term impacts to ground and surface water, soil, and wetlands from cumulative hazardous material buildup.

Natural Resources

DNR-Managed Uplands and Conservation Lands
DNR manages a statewide system of conservation lands, protecting some of the best remaining natural areas in Washington. These sites contribute to region-wide biodiversity conservation, while serving as baseline reference sites to guide the management of less-pristine lands. The EIS should analyze the potential impact on DNR Natural Resources Conservation Areas (NRCAs) and Natural Area Preserves (NAPs) along the rail corridors.

The EIS should analyze impacts of forests, sensitive ecosystems, and plant communities listed as threated or endangered that may be impacted due to expansion of the rail lines on state-managed lands along the rail corridors.

IMPACTS TO STATE-MANAGED LANDS STATEWIDE

Natural Environment

Earth

Please refer to the comments on geological hazards. Any expansion of rail lines over state-managed lands should provide the recommended geological hazard analysis.

Plants and Animals

Rail Corridor Expansion
The existing rail system is located directly adjacent to the shoreline along long stretches of the Columbia River and other state-managed rivers. The EIS should analyze potential impacts to state-owned aquatic lands and DNR managed uplands required to accommodate the increase in train traffic. What are the potential impacts of that potential expansion? Will expansion of rail corridors be needed on state-managed uplands? How will impacts to habitats be minimized and mitigated?

Stream Passage Structures
The EIS should analyze the location and design of bridges and culverts needed or replacement of

existing structures for any stream crossing. All structures should meet fish passage and hydraulic code requirements of the WDFW. Structures should be appropriately sized based on hydraulic calculations similar to those in the WDFW manual for 100-year flood plus debris events, regardless of fish presence. The project proponent should consult with WDFW and use appropriately sized round culverts on non-fish bearing streams and open-bottom culverts or bridges for crossings on fish streams.

Habitat Conservation Plan
Washington's Trust Lands Habitat Conservation Plan (HCP) is an ecosystem-based forest management plan developed by DNR to provide habitat for species such as the Northern Spotted Owl, Marbled Murrelet, and riparian-dependent species such as salmon and bull trout. The HCP is a contract with the United States Fish and Wildlife Service (USFWS) and the National Ocean and Atmospheric Administration (NOAA) providing protections for species listed as 'threatened' or 'endangered' under the federal Endangered Species Act (ESA). The HCP applies to 1.8 million acres of forested state trust lands within the range of the Northern Spotted Owl. Under the HCP DNR was issued an Incidental Take Permit (ITP).

The EIS should analyze impacts on lands covered by DNR's HCP to demonstrate and document that the construction of a new facility near DNR-managed lands and site expansion of existing facilities (railroad rights-of-way) on DNR-managed lands will not adversely affect the agreement and the commitments made in the HCP, thereby affecting covered species. Additionally, it would be helpful for USFWS Section 10 representatives familiar with the upland HCP to be involved in any discussion with USFWS regarding DNR-managed lands.

Water Quality

The EIS should analyze how much right-of-way onto state-owned aquatic lands is estimated to be required to accommodate the increase in trains. What are the potential impacts to water quality? Where relevant, the EIS should review existing studies from other parts of the country.

Spills
The EIS should analyze the increased risk of oil spills that may occur during rail transport of crude oil. What measures will be taken to ensure prevention and timely response to oil spills to avoid water quality and habitat impacts? The state's oil spill program is funded through a crude oil tax on vessels; that does not include rail.

Natural Resources

Conservation Lands
The EIS should analyze the potential impact on DNR Natural Resources Conservation Areas and Natural Area Preserves along the rail corridor including potential indirect effects of new or expanded rail corridors or infrastructure. For example, within the Columbia River corridor, a direct impact may be on the Washougal Oaks Natural Area that is directly to adjacent to the existing rail line. DNR can provide additional information on locations of these areas, if necessary.

Built Environment

Environmental Health

Please refer to the earlier comment regarding hazardous substances associated with any rail corridor expansions. Any expansion of rail corridors on state-managed lands to support the project should analyze the potential for soil contamination and include mitigation measures that reduce and prevent the potential for short- and long-term impacts to ground and surface water, soil, and wetlands from cumulative hazardous material buildup.

Land and Shoreline Use

How might the additional train and vessel traffic affect DNR's agricultural and commercial lessees' lands and the ability to get their commodities, such as wheat, grains, potatoes, and timber to the market? The EIS should include a cumulative impacts analysis of these potential effects.

Natural Resources

The project proponent should analyze or consider ongoing restoration activities along the rail corridors. Analysis of impacts should include, but should not be limited to, analyzing effects of rail traffic including increases along existing rail feeder tracks.

Public Services and Utilities

The EIS should analyze whether any uses of state-managed lands would need to be increased to accommodate the construction, operation, and any future maintenance activities of rail corridors and infrastructure. This includes but is not limited to: all excavation of material, placement of construction materials and tracks, equipment movement and placement of equipment. The EIS should analyze how state resources, including wetlands and forests within and outside directly affected areas, will be protected. Will the project require re-configuring of existing wetlands?

Fire Risk

The EIS should analyze additional wildlife risk for lands covered by DNR fire suppression responsibilities along existing rail rights-of-way that will anticipate increased traffic carrying crude oil. Chapter 76.04, RCW and Chapter 332-24, WAC provide requirements regarding landowner and operator responsibilities related to fire prevention and fire hazard abatement. The EIS should identify all reasonable measures to prevent and minimize the start and spread of fire on forested areas adjacent to rail corridors. Construction site safety operating procedures should include compliance with the substantive requirements of Chapter 332-24-301, WAC (Industrial restrictions) and Chapter 332-24-405, WAC (Spark emitting requirements).

Analysis and proposed mitigation measures should be undertaken that will anticipate increased traffic. The EIS should analyze the potential increased risk of explosion and resulting wildfire from the additional train traffic through or adjacent to forest and grass lands.

Historical and Cultural Preservation

The EIS should analyze impacts of construction and operations (including future maintenance, repair, and replacement) on cultural resources and tribal use. This analysis should be completed for the aquatic lands, the uplands areas subject to Forest Practices Permits, and additional uplands easement areas.

Rail Capacity Impacts

DNR manages approximately 1.1 million acres of agriculture lands in the state. Commodities from these lands are typical with Washington grown products: tree fruit, grains, row crops, and cattle. In fiscal year 2011, $13 million in revenue was generated from the leasing of DNR-managed agriculture lands. The lessees of these lands rely on transportation infrastructure such as highways and railways to move commodities to regional destinations or ports bound for international trade. The 2006 Statewide Rail Capacity and System Needs Study commissioned by the Washington State Transportation Commission identified several limiting factors regarding rail use and growth in the state. Specifically, the study highlights capacity issues on existing rail partly due to increases on Class I railroads in long-haul bulk and intermodal trains arriving from or departing to the mid-west and other states. According to the study, long-haul trains tend to be more profitable for rail companies and hence create an economic barrier for Class II short-haul trains that typically transport state-grown agriculture goods and link to Class I railways. The report states: "The railroads are focusing on high-volume and long-haul services, but the state's industrial and agricultural shippers also need low volume and short-haul services."

The EIS should analyze impacts from increases in long-haul or intermodal trains and increases in vessel traffic on the Columbia River to the proposed terminal and to the Washington state agriculture industries. Analysis should include, but not be limited to: socio-economic impacts to DNR agriculture revenues; potential for reduced crop productivity associated with coal dust particles; limits on access for purposes of managing DNR lands; reductions in the ability for producers to move goods to international ports due to increased congestion; and, opportunities to improve rail infrastructure. Mitigation measures should be identified.