



January 22, 2013

GPT/BNSF Custer Spur EIS Co-Lead Agencies
c/o CH2MHILL
1100 112th Avenue NE, Suite 400
Bellevue, WA 98004

Dear Co-Lead Agencies:

Please accept these comments from the Washington Department of Natural Resources (DNR) regarding the scope of the Environmental Impact Statement (EIS) for the proposed Gateway Pacific Terminal/Custer Spur project at Cherry Point, 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. It is our goal to ensure DNR's management of state lands supports conservation and recovery of the health of Puget Sound. I have directed my staff to provide technical support to the co-lead agencies towards ensuring a robust, science-based and comprehensive environmental review process.

DNR is regarded as possessing special expertise under Washington state's environmental policy act rules, Chapter 197-11-920, Washington Administrative Code (WAC) 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. DNR is also an agency with jurisdiction for this project under Chapter 197-11-714(3), WAC. The proposed wharf and trestle would be located on state-owned owned aquatic lands, and a DNR lease will be required. DNR has designated the majority of the state-owned aquatic lands at Cherry Point as an environmental aquatic reserve to preserve, restore, and enhance its aquatic habitats and species. The Cherry Point Aquatic Reserve Management Plan (2010) serves as the guiding document for decision-making regarding the management and authorization of uses of the Cherry Point Aquatic Reserve.

The Custer Spur proposal would increase the number of tracks located on state trust lands at Elliott Yard. The existing DNR easement would need to be amended to address these modifications. The proponent will also need to submit a Forest Practice Application (FPA) prior



to any road building, timber harvest, clearing or other forest practice activities at the Gateway Pacific Terminal site.

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 Chapter 197-11-444, WAC 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 my Deputy Supervisor, Megan Duffy, at (360) 902-1034.

Sincerely,

A handwritten signature in blue ink, appearing to read "Peter Goldmark", with a long, sweeping underline.

Peter Goldmark
Commissioner of Public Lands

PROJECT ALTERNATIVES

Pier Alignment and Design

The wharf and trestle area is proposed to be located in Cherry Point herring spawning habitat. Washington Department of Fish and Wildlife (WDFW) has previously identified an ecologically preferable location and alignment for the overwater structure 1,000 feet south of the proposed location, intended to reduce adverse impacts of the project to pre-spawning herring. The EIS should analyze the WDFW recommended alignment and other alignments, and assess the potential, adverse impacts and potential mitigation measures for each alternative. The EIS should include an alternative that is based upon a comprehensive analysis of herring migratory patterns from deep waters to the nearshore environment of the Cherry Point Aquatic Reserve. The design of this alternative should locate overwater structures to avoid disruption to these migratory patterns, either by the structure itself, or from the vessels calling in the proposed structure. Alternative overwater structure designs should also be evaluated to avoid and minimize impacts, such as decking material, artificial lighting, and other considerations.

Vessel Traffic

The project would generate a significant increase in traffic of large vessels at Cherry Point and through Puget Sound. A detailed vessel traffic analysis should be conducted using a robust model that relies on the most recent vessel tracking system data for all of the Salish Sea. The scope of the study should include all of the northern Salish Sea, including the projected increased traffic from shipping terminals in British Columbia, and evaluate multiple alternatives for reducing potential incidents, 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 herring spawning behavior at Cherry Point.

Rail Corridor Expansion

Will the proposal require or likely result in an expansion of rail corridors beyond Custer Spur in order to transport the commodity materials to the Cherry Point terminal? If so, the EIS should analyze alternatives to the expansion of rail corridors along the Puget Sound shoreline that avoid impacts to nearshore habitat and water quality.

In evaluating alternatives, it is important to address the impact of bifurcation of state-managed lands due to corridor expansion on DNR's ability to manage these lands and avoid bifurcation to the greatest degree possible. What alternative alignments could prevent this bifurcation?

IMPACTS AT THE CHERRY POINT REACH

Natural Environment:

Earth

Sediment and Geomorphic Processes

The EIS should include a detailed analysis of the physical and geomorphological processes in the nearshore zone, focused on sediment transport processes, including potential redistribution or disruption of sediment flow by the overwater structure, potential changes in seasonal and overall net shore drift, and impacts to sediment input. The analysis should include spatially explicit mapping of sediment characteristics, beach geomorphology, bathymetry, and stability.

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 hydrodynamics from the in-water structures affect scour in the intertidal and shallow subtidal environments? How will waves, currents, and propeller wash change the sediment characteristics and hydrodynamic environment? How will aquatic vegetation and habitat for marine invertebrates be affected by changes in wave energy, sediment transport, or substrate? What is the likelihood that the project will require shoreline 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 wharf and pier 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 you 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 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.

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; aquatic vegetation; forage fish spawning, pre-spawn holding areas, and forage fish migratory corridors; salmon; groundfish; marine mammals; and, seabird, seaduck, and shorebird communities. The project proponent should coordinate with DNR and WDFW regarding appropriate mapping methods for aquatic vegetation, geoduck and other shellfish resources, forage fish spawning areas, and benthic and epibenthic invertebrate abundance and distribution.

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 on the conveyor belt or related to other wharf or trestle operations. What are the potential, adverse impacts of shading on marine resources, including, but not limited to: aquatic vegetation (including productivity), benthic habitats, forage fish pre-spawning and spawning behavior, and movement of juvenile salmonids, and how will they be avoided? How will shading be monitored over time to detect adverse impacts on aquatic vegetation (including eelgrass, kelp, and *Sargassum*) or fish species?

Construction

The EIS should analyze adverse impacts during construction of the wharf and trestle, and any future maintenance, repair, and replacement, from the presence of barges or other vessels used for construction. How will construction, design, and materials ensure avoidance of impacts to biological, chemical, and physical habitats, including, but not limited to: fish and wildlife, sediment transport, benthic habitats, and aquatic vegetation (including eelgrass, kelp, and *Sargassum*)? How will barge presence be limited in duration to mitigate adverse impacts, including shading, and noise?

The EIS should analyze the amount of noise likely to be generated during construction, future repair, maintenance, and replacement, and how the project will avoid impacts to herring, salmon, marine mammals, marbled murrelet, seabirds, and seaducks.

Operational Noise

The EIS should analyze the amount of noise that will likely be generated during operations by the loading and offloading of materials, transport through the conveyor system, docking and moorage of ships, and trucks, and other machinery at the terminal. What are the individual and cumulative impacts of noise generated from this project on herring pre-spawning and spawning

behavior, and other species, when considering industrial Cherry Point uses? How will these impacts be avoided? How will any changes in noise be monitored over time to assure there are no adverse impacts to herring? What options can be instituted to mitigate impacts?

Artificial Lighting

The EIS should analyze impacts of lighting proposed on the overwater structure and within 200 feet of the shoreline on herring, salmon, and other Cherry Point 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. How will any changes in lighting be monitored over time to assure there are no adverse impacts to herring or other species? Cumulative impacts should be modeled to determine what potential impacts, if any, one additional pier will have. Multiple options should be evaluated for avoiding or minimizing artificial light impacts, and recommendations should be included for adaptive management program to reduce long term effects of artificial light impacts.

Aquatic Vegetation

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

A Joint Aquatic Resources Permit Application was submitted on April 6, 2011 that proposed compensation for up to 4,350 square feet of shading impacts to macroalgae. Is this compensation measure still proposed? Eelgrass is present at the site and will likely be disturbed. The proposed location of the macroalgae plots are too deep for eelgrass to grow. The project proposes to drop small to large cobble and small boulders on top of sandy substrate. The enhanced substrate is not conducive to eelgrass growth, and may increase the risk of attracting *Ulva*. The EIS should analyze compensation measures for aquatic vegetation based on recent surveys, and in coordination with DNR, WDFW, and permitting agencies. We encourage you to work with us when developing a monitoring plan that contains specific performance measures for any mitigated aquatic vegetation survival, complete with area, density and timeline of expected growth trajectory and a contingency plan in the event the mitigation does not succeed.

Biological Resources

The EIS should analyze how vessels, including barges, propose to navigate or dock on the landward sides of the wharf, and how adverse impacts of the proposed alignment and vessel operations on herring, salmon, marine mammals, aquatic vegetation, and other biological resources and species will be mitigated.

Air

The applicant estimates the proposal will generate up to 487 vessels to the Puget Sound area annually (not including the tugs to support them). These vessels will likely burn fuel that may contribute to localized air pollution or emission of greenhouse gases. This may result in pollutants entering surface waters through atmospheric deposition.

There is also the potential for localized ocean acidification to occur. Ocean acidification has the potential to cause significant ecological and economic losses for Washington. The EIS should analyze the impacts of engine exhaust from the cargo vessels and tugs in the Cherry Point vicinity and within the larger airshed on marine species, sediment and water quality, including ocean acidification. Opportunities to reduce carbon emissions at the site should be identified to minimize contributions to ocean acidification of state waters. What opportunities are available to maximize non-fossil fuel energy along the portions of the project located on state managed land?

Water

Hydrological Dynamics

The EIS should evaluate existing nearshore hydrological dynamics in the area. What is the potential of the overwater structure to disrupt water flow or other natural hydrological functions, to the beach and marine waters?

Point and Nonpoint Discharges

The EIS should analyze whether any stormwater, treated or untreated, point or nonpoint, or any other pollution sources, may enter marine waters as a result of the project. This includes stormwater that may be infiltrated in wetlands and seep to groundwater. How will adverse impacts be mitigated? The EIS should include an estimate of much rain is estimated to run off the wharf, trestle, and roadway, and the quality of the runoff. What are the potential, adverse impacts of untreated stormwater, including the roadway, from the wharf and pier on aquatic habitat and how will these impacts be avoided?

The EIS should include a characterization of the source, quality and quantity, and analysis of potential impacts of all stormwater runoff generated by the entire project that may enter state waters, whether treated or untreated. The EIS should analyze whether the conveyer belt and other overwater facilities will need to be cleaned or maintained and how any runoff from the conveyor belt will be prevented from entering marine waters.

The EIS should demonstrate how new point source discharge outfalls for stormwater will be designed to avoid or minimize individual and cumulative adverse impacts, which is required under the Cherry Point Aquatic Reserve Management Plan.

The EIS should analyze the increased risk of oil spills that may occur due to the increase in vessel traffic through Puget Sound.

Coal train cars are typically sprayed with surfactants to reduce coal loss. While the surfactant manufacturers claim that they are non-toxic to fish, there could be potential for non-lethal effects on fish-behavioral changes, or for deformities or other effects on fish. No shellfish data are available related to surfactants. Some surfactants, most notably Corexit, the surfactant used in the Gulf Oil spill, have been implicated in subsequent fish and shellfish deformities. The EIS should identify potential impacts of surfactants on fish and wildlife, including shellfish.

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 on marine waters, when considering all other stormwater and wastewater discharges in the Cherry Point vicinity? 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 near shore species survival and water quality. Caged mussel studies and/or harbor seal bioassays may be used as biological indicators of toxicity. Bioaccumulation of polycyclic hydrocarbons (PAH), pentachlorophenol (PCP), and heavy metals in caged mussels should also be conducted, and 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. Is a sewage pumpout system proposed for the overwater structure? If so, how will potential spills be mitigated?

Coal Dust and other Commodity Material Drift

The EIS should analyze the amount of coal dust, large coal particles, or other commodity materials that may escape from the conveyor belt, the ship loader, or upland storage facilities, and the impacts of any escaped dust or materials on the aquatic environment. What is the potential for coal dust and other commodity particulates stored on the upland to enter marine waters indirectly by wind, surface water, or groundwater? What measures are in place to ensure the conveyor belt or loader does not malfunction, resulting in a spill outside the ship's internal containment facilities and into marine waters?

The EIS should analyze the potential for commodity materials to change the chemical environment of aquatic lands at Cherry Point, including pH. Some materials, such as inorganic sulfur like that found in coal, can react with chemicals in seawater to produce sulfuric acid, resulting in localized ocean acidification. In addition, coal particles may leach heavy metals into marine waters and sediments. The highest impacts here would be nearest the terminal. What might be the resultant impacts on fish and wildlife, and sediment quality? Studies have implicated coal in oxygen depletion. What is the potential for commodity materials to contribute to oxygen depletion or have a smothering effect on aquatic or upland habitats? What best management practices will be employed to collect dust and other commodity materials that may land on the facilities or vessels to prevent it from being washed or blown into the water or tracked onto the trestle? The EIS should describe measures to be instituted to prevent escape of coal dust, particles, and other materials into marine waters should a vessel collide with the overwater structure.

Ballast Water

The EIS should characterize all ballast water to be discharged into the marine environment, the adverse impacts of discharge, and how adverse impacts will be avoided. Will the ballast

monitoring standards of the Settlement Agreement be used? If not, how will ballast water quality be monitored to assure no adverse impacts to water quality over time?

Invasive Species

The EIS should analyze the potential for the project to introduce invasive species to the project site and Puget Sound and how will potential, adverse impacts 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 marine waters?

Stream Passage Structures

The rail line crosses over a stream at the Elliott Yard. The EIS should analyze the location and design of bridges and culverts needed for any new stream crossing. All structures should meet fish passage and hydraulic code requirements of the WDFW. Structures should be appropriately sized based of 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.

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 cast-in-place concrete of the wharf and trestle. Will treated wood be used? What materials will be used for fenders? Some fender materials have the potential to leach PAHs or other toxic pollutants; please analyze how potential impacts will be avoided and minimized.

The project proposal will add to existing sidings at Elliot Yard. Historic siding locations have contributed to soil contamination due to petroleum and hazardous materials spills or leaks from short and long term sided trains and cars. The EIS should analyze the impacts to ground and surface water, soil and adjacent wetlands from the expansion of the Elliot Yard, 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. We encourage the proponent to work with DNR to establish these measures to ensure they meet DNR requirements.

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 marine 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 all of the Salish Sea, including existing or projected traffic from adjacent industrial facilities, the shipping terminals in BC, and nonindustrial vessels. The analysis should allow for comparison and aggregation with the BP vessel study. The scope of the study should include all of the northern Salish Sea, and not just the Cherry Point area. 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 herring pre-spawning and spawning behavior should be analyzed. How will vessel operations be conducted during herring pre-spawning and spawning season to prevent impacts to herring? What are the cumulative impacts of projected vessel traffic generated by the project, and projected traffic for the region, on herring pre-spawning and spawning behavior, marine mammals, and other species? What are the impacts due to the increase in noise expected to occur within the Cherry Point area from increased vessel traffic approaching and leaving the facility? The EIS should also analyze the potential for vessel strikes to marine species in or adjacent to the Cherry Point Aquatic Reserve and how will they be avoided.

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, vessels transiting through the Straits, or the risk of collision?

The EIS should analyze the potential for proposed vessel operations to interfere or tangle with crab pots and other fishing gear and result in an increase in derelict fish gear.

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 enter Puget Sound and Pacific coast surface waters 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, the uplands areas subject to Forest Practices Permits, and the Elliott Yard easement area.

Recreation

What are the potential, adverse impacts of the project on existing public use and access, including recreational shellfish harvest? How will any impacts be mitigated?

Agricultural Crops

The EIS should analyze adverse impacts of the project on commercial shellfish harvest.

Natural Resources

Forests

As previously mentioned, the DNR Forest Practices Program is responsible for the implementation of the state's Forest Practices Act and rules (Chapter 76.09 RCW and Chapter 222, WAC). The rules provide the framework for the protection of public resources on all state and private forest land and are a responsibility of forest landowners, timber owners and operators when conducting forest practices activities. The project proponent will be required to obtain a forest practices permit for the conversion of forest to an industrial site

The DNR Urban and Community Forestry Program provides technical, educational, and financial assistance to encourage planting and maintenance and management of trees in the state's municipalities and counties and maximize the potential of tree and vegetative cover in improving the quality of the environment as codified in Chapter 76.15, RCW. DNR is the coordinator for the 2008 Evergreen Communities Act, which promotes healthy communities and urban forests. Urban forests have been identified as a valuable and potentially powerful tool to support economically viable and sustainable urban areas in Washington State (Dept. of Commerce, June 2009).

Additionally, DNR is coordinating the Urban Forestry Restoration Project (UFRP) to increase the health of urban forest in the Puget Sound Basin by providing funding to local governments to help restore ecosystem services through urban forest enhancements. Funding for the UFRP is provided for in Engrossed Senate Bill 5127 (Capital Jobs Bill). Several communities in Whatcom County and the Puget Sound Basin receive assistance from DNR's urban and community forestry program and are participants in the ECA. Existing tracks bisect many of these communities and the proposed terminal site is considered a fragmented forest.

The project proponent should analyze or consider potential impacts to urban forests and ongoing restoration activities in Whatcom County and the Puget Sound Basin. Analysis of impacts should include, but should not be limited to: analyzing effects of permanent removal of urban and fragmented forests for new facilities and additional rail sidings; analyzing rail traffic increases along existing rail feeder tracks that may create fine particulates (dust) from the

shipping of bulk dry goods that may coat plant leaf area leading to a reduction of plant photosynthesis and respiration ability resulting in a decrease in urban forest health; analysis of forest health at the site and opportunities for improvement through restoration and enhancement activities.

Public Services and utilities

The existing rail system at Elliot Yard currently has 6 yard tracks and one mainline track within the easement area. The proposal would add one additional mainline and two yard tracks within the existing easement area for a total of 10 tracks. Total acreage in current permanent easement for "railroad purposes" is approximately 14.55 acres with a width of 240' and centerline length of 2648.73'. There is also a wetland mitigation easement connected to the SW portion of the railroad easement which is 2.6 acres (410' x 280').

The EIS should analyze whether the area of the easement would need to be increased to accommodate the construction, operation, and any future maintenance activities. 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 the easement area, will be protected. Will the project require re-configuring of existing wetlands? How will the wetlands mitigation easement be affected?

Fire Risk

The EIS should analyze additional wildlife risk for lands covered by DNR fire suppression responsibilities for the site location and along existing railways that will anticipate increased traffic. It is critical that all fire prevention laws and rules of the state be adhered to by construction contractors during facility clearing or construction, maintenance or use to prevent unnecessary risk to life and natural resources. The presence of additional rail sidings creates increased risk of wildfire through the use and maintenance of the siding. Chapter 76.04, RCW and Chapter 332-24, WAC provide contractor 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 to adjacent forested areas. Measures should include ensuring all vehicles carry a fire extinguisher of at least a 5 B/C rating and a serviceable shovel, following construction site safety operating procedures which should include compliance with the substantive requirements of Chapter 332-24-301, WAC (Industrial restrictions) and Chapter 332-24-405, WAC (Spark emitting requirements).

IMPACTS TO STATE MANAGED LANDS IN THE PUGET SOUND 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 Puget Sound and Pacific Coast surface waters from atmospheric deposition, including sediment quality, water quality, and localized ocean acidification. It should

also include analysis of the additional fossil fuels generated by the 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 coal dust and other particulates may escape the train cars and enter Puget Sound surface waters, 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 migration, rearing, foraging, and spawning.

The existing rail system is located adjacent to the shoreline along much of Puget Sound, which is subject to frequent landslides. The EIS should analyze whether rail corridors may need to expand onto state-owned aquatic lands along other areas of Puget Sound to accommodate the project. If so, how much right-of-way onto state-owned aquatic lands is estimated to be required? What are the potential impacts of increasing the number of tracks on aquatic and uplands habitats managed by the State?

Built Environment

Environmental Health

The EIS should analyze the increased risk of oil spills that may occur due to the increase in vessel traffic through Puget Sound.

The EIS should analyze the potential impacts of increasing the number of tracks on aquatic and uplands habitats managed by the State along the existing rail corridor, or any alternative corridors that may be needed, including, but not limited to: habitat, cultural resources, water quality, and wetlands. Please refer to the previous comments regarding sidings and hazardous materials.

Please refer to the previous comments related to fire risk.

Natural Resources

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 Resource Conservation Areas (NRCAs) and Natural Area Preserves along the rail corridor.

Please refer to the comments regarding the DNR Urban, Community, and Fragmented Forests program. The EIS should analyze impacts of forests that may be impacted due to expansion of the rail lines on state managed lands along the entire rail corridor.

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 the Columbia River, and other state managed rivers. The EIS should analyze how much right-of-way onto state-owned aquatic lands is estimated to be required to accommodate the increase in train traffic. What are the potential impacts?

What expansion of rail corridors is estimated to be needed on state-managed uplands throughout the state? How much right-of-way is estimated to be needed for each area? How will impacts to habitats be minimized and mitigated?

Stream Passage Structures

Please refer to the earlier comments regarding stream passage structures. Any new crossings on state managed lands will need to be consistent with WDFW requirements.

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 State 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.

Natural Resources

Conservation Lands

The EIS should analyze the potential impact on DNR Natural Resource Conservation Areas Natural Area Preserves along the rail corridor. DNR can provide information on location of these upon request.

Biomass and Renewable Energy

Washington's forests have an abundant, renewable supply of woody biomass. Using some of this material for liquid transportation fuel, heating, and electrical power generation will play an important role in Washington's emerging green economy and help to address climate change. DNR's forest biomass initiative is occurring against a backdrop of existing state and federal policy direction, which act as guides to the emerging industry and signal opportunities for future expansion. The proposal states the new terminal would be used to ship dry bulk goods including coal.

The EIS should analyze the socio-economic impact to the Washington State biomass industry development of renewable fuel alternatives. The analysis should consider if increasing coal exports will delay the Washington state and regional biomass-to-fuel research and infrastructure investments in green technology and jobs, and if a new dry bulk terminal increases opportunities in infrastructure investments in green technology and jobs by providing a terminal to ship bulk dried biomass fuel pellets.

Built Environment

Environmental Health

Please refer to earlier comment related to siding locations. 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 addition of 18 trains of 1.5 miles in length affect DNR's agricultural and commercial lessees' lands and the ability to get their commodities to the market?

What affect could increase in coal dust have on the health or productivity of forest and crops located on or directly adjacent to DNR managed lands?

Public Services and utilities

Fire Risk

Please refer to the previous comments regarding analysis of fire risks. Analysis and proposed mitigation measures should be undertaken that will anticipate increased traffic. Train cars carrying coal are not covered because of spontaneous combustion risks. The EIS should analyze

the potential increased risk of explosion and resulting wildfire from the addition of 18 trains per day through or adjacent to forest lands.

The trains may be up to 1.5 miles long, which could block street crossings. What is the potential impact of the increase and length of trains on DNR's ability to respond to wildfires?

Management of DNR Lands

What would be the impact of bifurcation of state-managed lands due to rail corridor expansion on DNR's ability to manage these lands? What alternative alignments could prevent this bifurcation?

Agricultural Crops

DNR manages approximately 1.1 million acres of agriculture land 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 manage 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 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.

The EIS should also analyze the impacts of coal dust on forests, agricultural crops, and other commercial uses of state managed lands throughout all rail corridors that would be used to move commodities going to the marine terminal. Studies have demonstrated significant amounts of coal dust may blow off coal train cars during transit.